Vermont Public Access Greeter Program Training Manual

2016

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
LAKES AND PONDS PROGRAM

VERMONT
AGENCY OF NATURAL RESOURCES

STOP AQUATIC HITCHHIKERS!™
Prevent the transport of nuisance species.
Clean all recreational equipment.
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Table of Contents

Vermont Public Access Greeter Program

Aquatic invasive species - non-native species that cause ecological harm when introduced into bodies of water outside of their natural range - continue to be a great concern in Vermont, demanding our attention as well as our resources. Aquatic invasive species are spread by overland transport of watercraft, trailers, fishing and recreational equipment as well as other means. The most effective way to prevent spread is through education and equipment inspections to clean and remove potential invasive species "hitching a ride" on equipment. Preventing the spread of aquatic invasive species is far more effective and economically sensible than controlling invasive species once they are established. Public Access Greeters educate access visitors about aquatic invasive species, provide courtesy watercraft inspections, and *STOP* introductions.

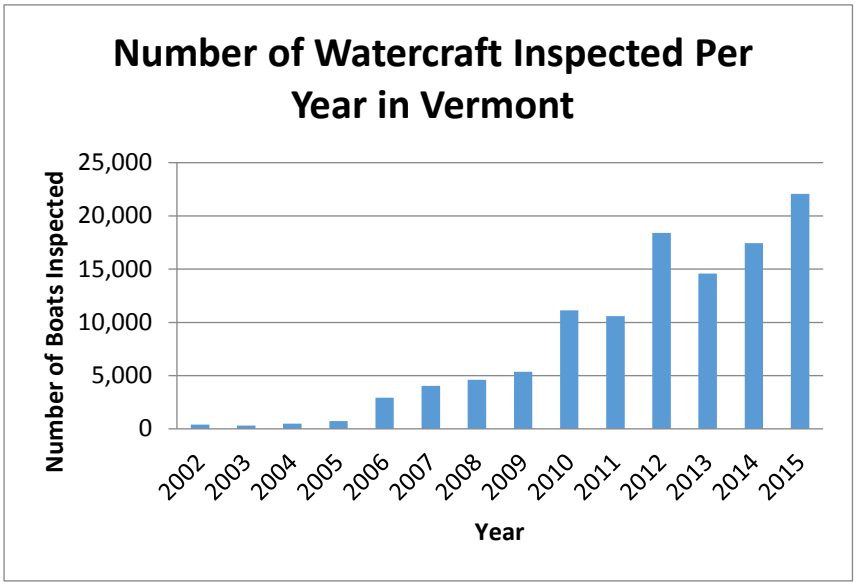
Program Goals

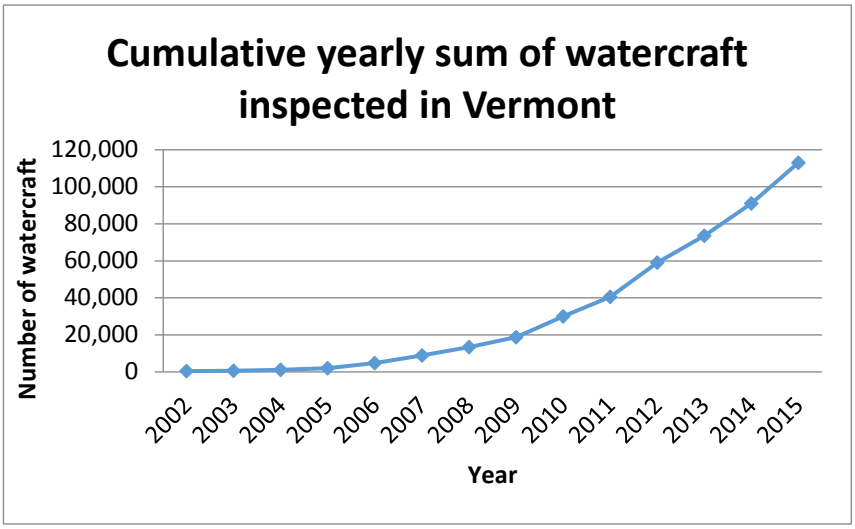
To prevent the spread of aquatic invasive species by establishing a well-trained network of public access greeters who:

- Educate boaters about the harmful effects of invasive species, and measures that can be taken to prevent spread
- Provide courtesy boat inspections to help boaters take the appropriate steps against transporting invasive species
- Stop invasive species introductions

Program Data

Since 2002, the Vermont Public Access Greeter Program has expanded to 24 locally-run programs and 7 State Parks covering 32 launches on 26 lakes and ponds, and those numbers are increasing annually. The total number of watercraft of varying types inspected has followed suit, with 404 in 2002 to 17,484 in 2014. Last year (2015), 22,056 watercraft were inspected in Vermont, shattering the previous record. Greeters intercepted and removed 469 instances of aquatic invasive species, roughly 62% of recorded intercepts. Detected invasive species were Eurasian watermilfoil, curly-leaf pondweed and zebra mussels. Eurasian watermilfoil represented 99% of aquatic invasive species intercepts.





Continuing to protect our waters

The Vermont Public Access Greeter Program has seen growth and success since its establishment in 2002. Because overland transport of aquatic invasive species continues to be a problem, the Greeter Program, with its unified message and consistent methodology, is critical to preventing the spread of aquatic invasive species. Even if a water body is already known with an infestation of one invasive species, another equally or more disruptive species could still be introduced. In addition, microscopic organisms like zebra mussel veligers, spiny waterflea, or pathogens such as viral hemorrhagic septicemia are difficult to observe and therefore intercept. These organisms are removed through cleaning and drying all equipment that comes in contact with the water, which is a strong message greeters offer to the boating community. The VTDEC will continue to foster the establishment of new greeter programs in an effort to help protect Vermont's remarkable water resources.

Public Access Greeter Duties

As a greeter, you will be interacting with the boating public on a day-to-day basis. This section is designed to guide you through the process of educating boaters, inspecting watercraft, and possibly decontaminating watercraft.

Vermont Watercraft Inspection Procedures: Tips for interacting with boaters

Do's and Don'ts when interacting with boaters

DO

- ✓ Only approach boaters when they are settled and when you will not be interrupting what they are doing.
- ✓ Respect the wishes of a boater who does not want to be spoken to.
- ✓ Convey your message politely and respectfully.
- ✓ Phrase your message as suggestions for the next time the boater launches, to inform and encourage responsible behavior.
- ✓ Convey your message in your own words and in your own way, but keep facts accurate. Refer to the educational materials provided to you.
- ✓ Offer educational handouts as additional resources.
- ✓ Thank the boater for their time and consideration.
- ✓ Ask for help from your site coordinator or VTDEC staff as needed.
- ✓ Walk away from confrontation and leave the launch site if you feel unsafe.

DON'T

- ✓ Bombard boaters with questions immediately upon approaching them.
- ✓ Engage in conflict or debate, argue, or lose your temper.
- ✓ Frame your message as though the access user is doing something wrong.
- ✓ Delay people from launching their watercraft or cause backups.
- ✓ Provide personal information.

Troubleshooting interactions with access area users

Generally, access area users are interested in and concerned about the health and state of their water body. Make sure you are prepared to answer questions and to discuss aquatic invasive species with boaters. Below are examples of questions that you may be asked.

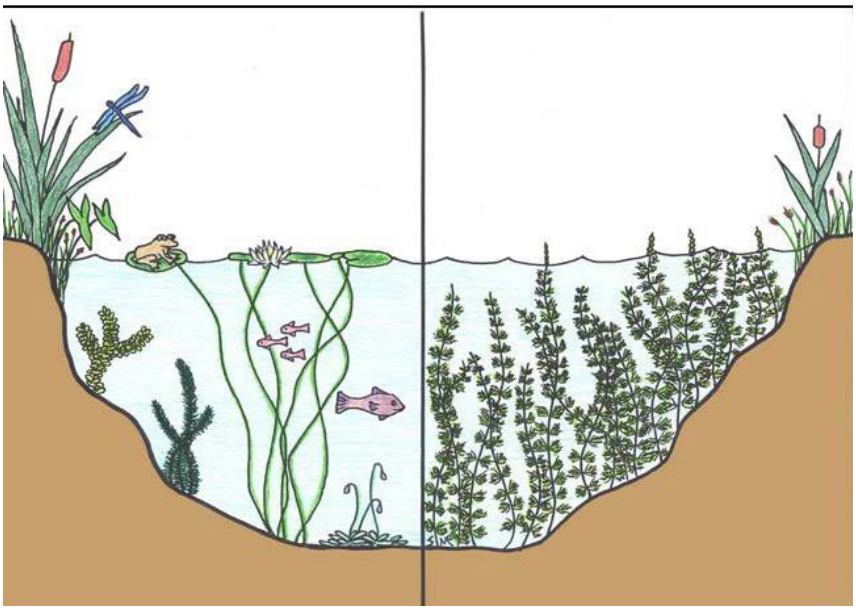
"Is this really necessary? Aren't the plants going to get here anyway?"

Suggested response: Even if a new aquatic invasive species infestation can't be prevented, spread prevention efforts have additional benefits: decreasing the likelihood of widespread ecological damage, increasing the time available to continue to research new control methods, and delaying burdensome costs of controlling an aquatic invasive species and subsequent property devaluation.

"Aren't all plants bad anyway?

Suggested response: This is a common misconception. Aquatic plants form the base of the food web. A healthy, diverse native aquatic plant community enhances ecosystem stability and is critical to any freshwater system by:

- ✓ Providing fish habitat
- ✓ Preventing erosion through the absorption and diffusion of wave energy
- ✓ Providing food and oxygen for other organisms
- ✓ Transporting nutrients through the food web
- ✓ Increasing water clarity
- ✓ Stabilizing sediments in the lake bottom
- ✓ Taking up nutrients that would otherwise be used by algae, thereby preventing algal blooms



Invasive plants frequently form dense monocultures, with just one species dominating a particular area, compromising or eliminating the benefits provided by a diverse, native aquatic plant population.

"I don't have time for this. I get it and I don't need your help."

Suggested response: If a public access user does not wish to have their watercraft or associated equipment inspected, respect their wishes. However, you may still offer handouts on aquatic invasive species and spread prevention.

Vermont Watercraft Inspection Procedures: Step-by-step guidelines for watercraft inspections

Materials needed:

- ✓ Clipboard with 2016 Public Access Program Datasheet
- ✓ Greeter program t-shirt
- ✓ "Greeter on duty" sandwich board
- ✓ Personal safety materials (sunblock, insect repellent, raingear, shelter, WATER!!)
- ✓ Writing utensils
- ✓ Informational materials (rack cards, watch cards, etc.)
- ✓ Sponge
- ✓ Sealable plastic bags (for sample submission)
- ✓ Cell phone/camera (optional; but helpful for specimen ID)
- ✓ Flashlight (optional)
- ✓ Adjustable wrench (optional; for boat plug removal)

Note: The following steps are recommended protocol for watercraft inspection to prevent the spread of aquatic invasive species, however, they are not mandatory. Boaters have the right to refuse some or all of the recommended steps. As a greeter, you do not have any enforcement authority.

For inspections of watercraft entering a waterbody:

Step 1: Ensure personal and public safety

Your safety and the safety of those around you is your top priority at all times. Many vehicles and people may be moving around the inspection area. At times, you may be required to look underneath trailered watercraft. Make sure all efforts are made to ensure the safety of everyone involved, including:

- ✓ Asking the driver of the vehicle to turn off the engine, put on the parking brake, and step out of the vehicle.
- ✓ Staying out of dangerous weather. In the case of lightning, get to a safe location away from the water and large trees.
- ✓ Removing yourself from a situation in which you feel threatened by someone or uneasy because of suspicious behavior. Get to a safe place and contact State Police as soon as possible.
    - o In these situations, record vessel and/or vehicle registration plate number for law enforcement.

Step 2: Greet the boater

Find an appropriate time to approach the boater as they are preparing to launch, such as when they are waiting in line at the ramp, or just before or as they finish readying their watercraft. Let them get settled before you approach. They are much less likely to be receptive to your message if they are just getting out of their vehicle or rushing to ready their watercraft. There are a few things that you can do to ensure that the inspection process is pleasant and informative for the boater. They include:

- ✓ Introducing yourself, the association that you work for, and your role as a greeter so that access users know why you are approaching them.
- ✓ Asking **politely** if they would give you a few minutes to convey your message about AIS, assist in the inspection of their equipment, and ask a few questions.
- ✓ Providing a brief explanation of the purpose of the inspection and what you are looking for. Not every lake, river, and pond in Vermont will have an access greeter, so it is essential that boaters know how to inspect their own watercraft correctly and thoroughly.
- ✓ Impressing on the boater how AIS affect boats, gear, fisheries, water recreation, and water infrastructure.
- ✓ Providing brochures, rack cards, or other educational materials to the boater.

Step 3: Conduct initial assessment

A few simple questions can provide a great deal of information on a vessel's risk of carrying AIS. The **Public Access Greeter Program Datasheet** will guide you through these questions, which include:

- ✓ "What was the last waterbody in which the watercraft was used?"
  - o The risk of the inspected watercraft will vary greatly depending on the AIS present in the last waterbody. For example, a watercraft last used in Green River Reservoir (no confirmed AIS) is a much lower risk than a watercraft last used in Lake Erie (many confirmed AIS).
- ✓ "How long has it been since the watercraft was last used?"
  - o AIS, as the name implies, are aquatic and need water for survival. However, some can persist for days or even weeks out of water, especially in dark, damp conditions. Therefore, a watercraft that has been recently used (<14 days) has a higher risk than one that has been out of water for months.
- ✓ "Are you familiar with AIS, and do you normally take steps to prevent spreading them?"
  - o A boater that takes measures to prevent the spread of AIS will likely have a lower-risk watercraft. If you find out that a boater is not aware of AIS and does not take preventative steps, this is a good opportunity to provide a courtesy inspection and educational materials.

At this time, you'll also fill out the following columns on the datasheet:

- ✓ Time
- ✓ Launch/Retrieve
- ✓ Watercraft type (outboard motor, inboard motor, kayak, paddleboard, etc.)
- ✓ Purpose of trip

Step 4: Determine risk factors

While some risk factors can be determined from the questions above, others will require a quick visual inspection of the watercraft. At this time, you will:

- ✓ Visually check the vessel's (and trailer's, if applicable) exterior to determine if they are dirty, crusty, slimy, or have any evident plant material.
- ✓ Identify if the vessel is a complex vessel, meaning it has multiple compartments, a closed hull, or more than one engine. For a complex vessel such as a wake boat or other watercraft with an inboard motor, ask the owner if the vessel has ballast tanks (interior compartments designed to take on water). If so, you may ask the boater when the tanks were last filled, or if he/she would be willing to turn the ballast pumps on to ensure that the tanks are empty.
- ✓ Visually and physically inspect the vessel to determine if there is any standing water present. Standing water poses a significant risk of transporting AIS, and should always be treated with caution.

At this point, you will be able to determine if the watercraft has a high risk of transporting invasive species. A vessel should be considered high risk if:

- ✓ It was last in a waterbody with confirmed AIS that are not present at the inspection location lake, and was used within the last 30 days
- ✓ The vessel is dirty, slimy, crusty, or has evident plant material attached
- ✓ The vessel contains standing water

For high-risk watercraft, take extra care when going through inspection steps. Keep in mind that the watercraft in question could be carrying invasive species. Treat standing water in high-risk watercraft with increased scrutiny.

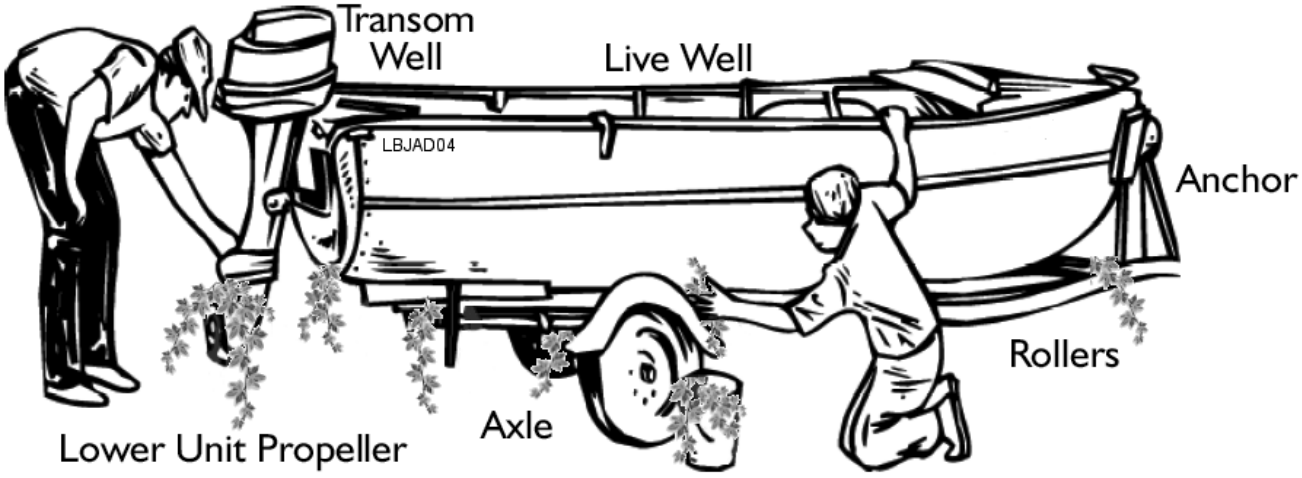
Step 5: Conduct watercraft inspection

Now you will inspect the watercraft, paying close attention to points on the watercraft and trailer where organisms may become snagged and other areas most likely to harbor AIS and/or standing water. There are four major areas of concern that you will examine:

Watercraft exterior, hull, and trailer

Perform a visual and tactile inspection of the outside of the vessel and trailer while paying particular attention to the following areas:

- ✓ Trailer bunks/rollers, tire wells, and lights. Remove any organic material.
  - o These are snag points for aquatic plants, and plant material can also be pinned between the vessel and trailer bunks upon exiting a waterbody.
- ✓ Bilge area. Inspect for standing water.
  - o If there is water in the bilge area, or if the bilge isn't visible, ask the boater to remove the bilge plug until drained.
  - o If applicable, have the boater activate the bilge pump.
- ✓ Anywhere else where plant material could be snagged or animals attached.



Engine or motor

Motors typically have several areas in which plant material can get snagged. Many will also hold water if not properly drained, which can carry invasive animals. Take the following steps to ensure that the internal and external components of the motor, are free of AIS:

- ✓ Ask that the outboard or inboard/outboard motor be lowered.
  - o If water drains out of the motor, allow it to drain completely before being raised.
- ✓ Visually and physically inspect the engine, gimbal area, and transom of the boat. Feel the engine, gimbal area, and transom of the boat for bumps, slime, or a sandpaper consistency. These could be signs of organic material or juvenile mollusks.
- ✓ For jet skis and jet boats, ask if the owner will "burp" (turn on the engine and rev for 5-10 seconds) the vessel. This will expel any water or vegetation in the engine.

Anchor and equipment

Any equipment that comes in contact with water can harbor AIS. Anchors are a significant risk, since they contact bottom substrates can easily pick up plant material and sediment. Be sure to check the following areas:

- ✓ Anchor and anchor rope/chain.
  - o Visually and physically inspect the anchor and related equipment for plants, mud, and other organisms.
  - o Anchors are often stored in dark, damp compartments that are conducive to the survival of AIS. Depending on the situation, you may want to suggest that the boater thoroughly dry the anchor and anchor rope/chain after each use.
- ✓ Check any additional equipment such as life vests, buoys, paddles, ropes, nets, etc. Ensure all equipment is clean and dry.

Interior Compartments

For larger craft, you may need to board the vessel to inspect interior compartments that could hold standing water, such as livewells. For smaller craft, you should be able to inspect these without entering the vessel. Take the following steps when examining internal compartments:

- ✓ Ask the boater to open up compartments so that you can see all bait wells, livewells, equipment lockers, and visible ballast tanks (if applicable).
  - o If the vessel has standing water in a livewell or any other compartment, you should work with the boater to remove standing water from the vessel using a sponge or towel.
  - o Ensure that the compartments are fully drained to the best of your ability prior to launch.
  - o **If the boater has live bait in a livewell, you may inform the boater of the baitfish laws (page 21). You do NOT have the authority to ask for a baitfish receipt, however. If a boater is obviously breaking the law, you may contact law enforcement if you deem it appropriate.**
- ✓ If the vessel has an inboard or inboard/outboard (I/O) engine, be sure to inspect the engine compartment and its bilge.

Remember to fill out the rest of the datasheet, including the "Inspection performed?" and "Plant/animal material found?" columns.

Step 6: Closeout interaction with the boater

- ✓ Remind boater to replace the bilge plug. The boater is responsible for ensuring the vessel is watertight before launching.
- ✓ Remind boater to raise the engine or motor to avoid damages while the watercraft is trailered.
- ✓ Thank the boater for their time, and for keeping their vessel **clean, drained, and dry.**

For inspections of watercraft leaving a waterbody:

When conducting inspections on watercraft pulling out of the lake or pond, much of the procedure remains the same. Many of the questions asked (i.e. last body of water visited) will no longer be necessary, however. Also, you will not expect that the watercraft be completely dry, since it was just in use. For an exit inspection, you will be looking to ensure that the watercraft is **cleaned, drained, and drying.**

Step 1: Ensure personal and public safety

Same as for an entrance inspection. Safety should always be the utmost concern.

Step 2: Greet the boater

Same as for an entrance inspection.

Step 3: Conducting initial assessment

Same as for an entrance inspection, except that you may record without asking the last waterbody that the watercraft was in and the last time the watercraft was used.

Step 4: Determine risk factors

Same as for an entrance inspection, although information about your lake or pond will be used to assess risk of the vessel transporting invasive species to another body of water. For example, if you are inspecting a watercraft leaving your lake, and your lake has a known infestation of Eurasian watermilfoil or spiny waterflea, you'll want to be especially careful to inspect the boat and trailer thoroughly.

Step 5: Conduct watercraft inspection

Same as for an entrance inspection, but gear, compartments, bilges, etc. may be damp or contain some water. Your goal is to ensure that these are drained to allow for drying by doing the following:

- ✓ Ask that the bilge plug be left out during transport. This will allow the watercraft to fully drain prior to the next launch.
- ✓ Ask that compartments containing water be drained, and that damp compartments/gear be left open and exposed to the sun to ensure complete drying.

Step 6: Closeout interaction with the boater

Same as for an entrance inspection, although it is preferred that the bilge plug be left out.

Vermont Watercraft Inspection Procedures: When should decontamination be suggested?

Most inspection stations will not be equipped with hot water, high pressure decontamination equipment, but there will be some that will. In these cases, additional considerations will be made. Think about the following questions when determining if you should **suggest** that a watercraft go through some or all of the decontamination procedures.

Note: It will ultimately be at your discretion whether or not you suggest decontamination procedures. Every inspection is different, and you will need to use all the information at your disposal to determine the best course of action. Technologies range from high pressure, hot water decontamination units to low pressure, low temperature hoses. In many cases no boat wash or decontamination may be available, but other options, such as car wash, could be recommended.

For inspections of watercraft entering a waterbody:

- ✓ Can you physically see AIS?
  - o Obviously, this is the most extreme case, and decontamination should be highly encouraged if AIS are present in/on the watercraft that cannot be reliably removed by hand. This would include plant fragments stuck between the boat and trailer, zebra mussels on the watercraft, or other suspect material on equipment lines, paddles, etc.
- ✓ Does the watercraft contain high-risk standing water?
  - o If so, decontamination procedures should be strongly considered. If the watercraft was last in a high-risk or unknown waterbody, and was used within the past two weeks, there is a significant possibility that viable AIS could be present. Complete draining of compartments in question may not kill/remove all AIS prior to launch.
- ✓ Is the watercraft suspected of containing high-risk water?
  - o Even if you cannot physically see standing water, you might assume that standing water is present in the motor system or ballast system, as these areas often do not completely drain. If the watercraft was last in a high-risk or unknown waterbody, and was used within the past two weeks, there is a possibility that viable AIS could be present within these enclosed systems. You may consider suggesting a hot-water flush of equipment in question.
- ✓ If you think decontamination in some form is warranted, is there sufficient time/staff to do it?
  - o Unfortunately, these will be things you must also consider, and prioritize accordingly.

For inspections of watercraft leaving a waterbody:

When conducting inspections at a waterbody with confirmed AIS, you may offer to decontaminate part or all of a watercraft as it leaves your waterbody. To determine if this is necessary, ask the boater where he/she plans on going next and when the watercraft will next be used. If the boater plans on soon launching in a lake without confirmed AIS, then consider the questions listed above. If the boater plans on coming back to your waterbody next, then it probably doesn't make sense for them to undergo decontamination.

Note: Be smart about when you suggest decontamination procedures. When inspecting boats at a lake with a lake-wide infestation of Eurasian watermilfoil, and a watercraft shows up with suspected milfoil stuck between the boat and trailer, decontamination measures are not warranted. You would still remove the plant material, but realize it is probably not posing a significant risk to your waterbody. Remember, decontamination is voluntary, and boaters may be less likely to participate if they feel that the decision process is not logical.

Watercraft Decontamination Procedures:

Why Perform Vessel Decontamination?

Invasive species, such as zebra or quagga mussels, are able to travel great distances over land by "hitchhiking" on watercraft. They can survive up to 30 days out of water depending on temperature and/or humidity. Through a comprehensive education, inspection and decontamination program, we can stop the spread of these costly invasive species. Zebra and quagga mussels, spiny waterflea, and other AIS can safely and effectively be killed and removed from a vessel by trained personnel. Decontamination involves the use of hot water with high or low pressure to decontaminate boats, motors/engines, trailers, personal gear, and other equipment. The objective of decontamination is to kill and remove, to the extent practical, all visible mussels or suspected AIS. Killing AIS prevents establishment of new populations as a result of vessel/equipment transfer.

When will decontamination be suggested?

Most inspections do not result in a decontamination being performed. Often times only certain compartments or components of the boat requires decontamination. Circumstances that may result in a decontamination being performed:

- If zebra or quagga mussels are found attached to a vessel
- If any other AIS is positively identified or suspected on a vessel
- If suspect unidentifiable bumps are detected on a vessel
- If the vessel is high risk and has unverifiable water (e.g. ballast tank, inboard or inboard/outboard engine)
- If the vessel or trailer has plants attached that can't be removed by hand
- If the inspector deems decontamination is necessary

What does vessel decontamination generally consist of?

Vessel decontamination consists of a very hot water rinse or spray at high or low pressure. There are no soaps, bleaches or chemicals used or recommended. The hot water kills AIS, and the high pressure spray removes them from the vessel. The general recommendation is to use 140ºF water at high pressure (3,000 psi) to decontaminate the hull and 140ºF water at low pressure to decontaminate motors/engines. Interior compartments are decontaminated with 120ºF at low pressure to avoid damaging pumps. A 140ºF hot water rinse for ten seconds, to each spot, will kill most AIS. A reduced temperature of 120ºF for interior compartment standing water decontaminations for the protection of the vessel is more than sufficient to kill juvenile stages of AIS.

What types of decontaminations will I do?

There are different types of AIS decontaminations. Each will be described in detail in this section. Decontaminations performed must be documented in the comments section of the datasheet.

Standing Water Decontamination

This protocol is performed to kill zebra and quagga mussel veligers, spiny waterflea eggs, or other microscopic AIS in standing water that can't be fully drained from the vessel. This decontamination applies to interior compartments that contain water or have equipment that have come in contact with the waterbody. The interior compartments include, but are not limited to: livewells, bait wells, bilge areas, and ballast tanks. The equipment includes, but is not limited to: anchor, mooring and anchor lines, PFD's, swim platforms, inflatables, down-riggers, planing boards, water skis, wake boards, ropes, ice chests (used for bait or for holding fish), fishing gear, bait buckets, and stringers. Standing water decontamination also includes flushing the outboard motor, inboard/outboard engine, or inboard engine of a vessel.

Plant Decontamination

This decontamination is performed whenever plant material cannot be removed from the vessel or trailer by hand. This decontamination is localized and requires using 140ºF hot water only on the areas where plant material is located.

Exterior Decontamination for Suspected or Known AIS

This protocol is performed when adult or settler mussels, unidentifiable bumps, or other AIS are detected on the vessel. This decontamination is often the most complicated and ensures that the watercraft exterior has been completely decontaminated. In many cases, this will be combined with standing water decontamination to ensure a complete decontamination of the vessel, inside and out.

Note: In Vermont, decontamination is voluntary, and boaters have a right to refuse some or all of the decontamination steps. However, transportation of aquatic invasive species on a watercraft is against the law, so law enforcement may be contacted if deemed necessary.

Vermont Watercraft Decontamination Procedures: Step-by-step guidelines for watercraft decontaminations

Standing Water Decontamination of Interior Compartments

1. Follow the standard operating procedures for your decontamination unit.
    - Check all fluid levels of the decontamination unit. With the trigger squeezed, start the unit and purge the water until it runs clear.
2. Turn on the engine and the burner, and measure the temperature of the water until the desired temperature is reached (120˚ F).

3. Start the decontamination by having the boat operator open all interior compartments that need to be decontaminated and remove plugs. Flush each compartment. Use a laser thermometer and measure the temperature at the through-hull discharge port for that compartment. Continue flushing until the exit temperature of the water reaches 120ºF for 30 seconds. Be sure to keep the tip of the attachment close to the sides of the compartment to prevent temperature loss.
4. Next, if equipped, have the boater turn on the discharge pump for the compartment, and run hot water through the pump system until discharge water reaches 120˚ F for 30 seconds.
5. Turn off the decontamination unit when you have completed decontaminating all necessary interior compartments. Turn the burner off first, then allow the engine to run until cool water is discharged, and then turn off the key.
6. Note "standing water decontamination of compartments" in the comment section of the data sheet. Remind the boater to CLEAN, DRAIN, AND DRY their vessel.

Standing Water Decontamination of Outboard Motors and Inboard/Outboard Engines – Motor flushes

All decontamination stations will have clamp-style motor muffs for flushing of outboard and I/O motors. Follow these steps to decontaminate these engines:

1. Attach the hose to the end of the wand (quick connect fitting).
2. Attach the muff attachment to the hose.
3. Make sure the motor/engine is completely lowered. Place the muffs so that all the intake openings are completely covered. **If all intakes cannot be completely covered, then motor decontamination should not proceed so as to not damage the motor's impeller.**
4. Start the decontamination unit following the standard operating procedures.
5. Start the water by engaging the trigger. Check to make sure the intake openings are still covered on both sides and that the muffs are tight.
6. Stand clear of the propeller and have the boat operator start the motor/engine in Neutral.
7. Flush the engine until the water temperature is 140ºF for 120 seconds (2 minutes) when measured by a laser thermometer at the discharge port(s).

8. Have the boat operator turn off the motor/engine.
9. Remove the muffs and allow the motor/engine to completely drain before being raised
10. Turn off the decontamination unit when you have completed decontaminating all necessary interior compartments. Turn the burner off first, then allow the engine to run until cool water is discharged, and then turn off the key.
11. Note "standing water decontamination of compartments" in the comment section of the data sheet. Remind the boater to CLEAN, DRAIN, AND DRY their vessel.

Standing Water Decontamination of Inboard Engines and their Bilges

All inboard intakes, which are located on the bottom of the hull, have a cover over the opening that protects the engine from sucking up large particulates. Locate the intake opening before proceding.

1. Attach the hose to the end of the wand (quick connect fitting) and then attach the fake-a-lake attachment.
2. The fake-a-lake must be placed snuggly against the bottom of the hull covering the intake port for the inboard.
3. Start the decontamination unit following the standard operating procedures.
4. Start the water by engaging the trigger.
5. Stand clear of the propeller and have the boat operator start the engine in Neutral.
6. Flush the engine with low pressure water until the exit temperature of the water is 140ºF for two minutes when measured with a laser thermometer at the discharge port(s).
7. Have the boat operator turn off the engine.
8. Remove the fake-a-lake from under the boat; disconnect the hose from the wand.
9. Turn off the decontamination unit when you have completed decontaminating all necessary interior compartments. Turn the burner off first, then allow the engine to run until cool water is discharged, and then turn off the key.
10. Note "standing water decontamination of compartments" in the comment section of the data sheet. Remind the boater to CLEAN, DRAIN, AND DRY their vessel.

Standing Water Decontamination of Ballast Tanks

1. Attach the hose to the end of the wand (quick connect fitting) and then attach the fake-a-lake attachment.
2. The fake-a-lake must be placed snuggly against the bottom of the hull covering the intake port for the ballast tank. You may need the boat owner's assistance in identifying ballast intake ports. **DO NOT begin a ballast tank flush without being certain that you have identified the correct inflow port.**
3. Start the decontamination unit following the standard operating procedures.
4. Start the water by engaging the trigger.
5. Have the boat operator turn on the intake ballast pump. Fill it up with low pressure or until the exit water temperature reaches 120ºF. If there is no ballast tank discharge pump, flush the ballast tanks with 120ºF water for at least 3–5 minutes.
6. When the discharge water reaches 120˚ F, have the boat operator turn off the intake ballast pump. Release the trigger to stop the water flow.
7. Have the boat operator turn on the ballast tank discharge pump to drain the tank as much as possible.
8. Repeat these steps for every ballast tank. Ask the boater if they have multiple tanks.
9. Turn off the decontamination unit when you have completed decontaminating all necessary interior compartments. Turn the burner off first, then keep the wand trigger depressed until cool water is discharged, and then turn off the key.
10. Note "standing water decontamination of compartments" in the comment section of the data sheet. Remind the boater to CLEAN, DRAIN, AND DRY their vessel.

Step-by-Step Procedure for Plant Decontamination

During the entrance and exit inspection, any plant or plant fragment must be hand removed and properly disposed of away from the lake by the inspector or boat operator. However, there may be a situation when plant material is caught between the hull of the vessel and the trailer bunk or roller, or is wrapped around the propeller or transducer, and can't be completely removed by hand. In these cases, decontamination of affected areas should be suggested.

1. Start the decontamination unit using the standard operating procedures for your unit.

2. Apply low pressure 140ºF water directly to the plants or plant fragments for 15 seconds.
3. Decontaminate areas where plants are located and can't be removed:

   - ✓ **Trailer's carpeted bunk**: Use 140ºF water at low pressure. Move the low pressure hose slowly along the length of the bunk. Keep the tip of the wand/diffuser close to the bunk to maintain an even temperature.
   - ✓ **Trailer's frame and rollers**: Use 140ºF water at high pressure. Move the wand/diffuser slowly along the length of the trailer. Keep the tip of the wand/diffuser close to the trailer to maintain an even temperature.
   - ✓ **Propeller**: Use 140ºF water at high pressure. Be thorough and remove 100% of the plant material.
   - ✓ **Transducer**: Use 140ºF water at low pressure. The wiring and "water wheel" attached to this instrument dictate that low pressure is used in order to prevent damage.
   - ✓ **Interior compartments.** Follow standing water decontamination protocol.

4. Turn off the decontamination unit when you have completed decontaminating all necessary interior compartments. Turn the burner off first, then keep the wand trigger depressed until cool water is discharged, and then turn off the key.
5. Note "plant decontamination" in the comment section of the data sheet. Remind the boater to CLEAN, DRAIN, and DRY their vessel.

Exterior Decontamination for Suspect or Confirmed AIS

If you suspect that you have found mussels or other AIS you should suggest that all affected areas be decontaminated. For an exterior decontamination, all affected parts of the vessel must be exposed to hot water at the appropriate temperature and pressure to ensure the AIS are dead and removed. If an exterior decontamination is warranted, then it is likely that the watercraft should also have inside compartments and the motor flushed.

1. Follow the standard operating procedures for your decontamination unit. Check all fluids on the decontamination unit to make sure it is ready to operate.
2. Connect the wand to the trigger to the hose. Start the decontamination unit using the proper operating procedures for your unit.

3. Ensure water temperature reaches 140˚F, unless sensitive areas (i.e. rubber hoses) are being treated. In that case, ensure water temperature is 120˚F.
4. Decontaminate the exterior of the hull and trailer. Connect the 40º (white) nozzle with the use of the quick connect to the end of the wand. Start the decontamination unit. Keep the wand at a 45º angle and work methodically in one direction. On trailers, be sure to decontaminate the openings of the tubular frames. Do not use the wand to "scrub" the hull. Keep the tip of the wand within 12 inches of the hull and trailer as you move around the boat. Water temperature decreases approximately 15 to 20º per foot of distance when sprayed from a power nozzle.

WARNING: Use low pressure on all carpeted areas, decals, electrical connections, gimbal area on the inboard/outboard engine, interior compartments, transducers, and depth sounders and their wiring.

5. Turn off the decontamination unit when you have completed decontaminating all necessary interior compartments. Turn the burner off fist, then allow the engine to run until cool water is discharged, and then turn off the key.
6. Note "exterior decontamination" in the comment section of the data sheet. Remind the boater to CLEAN, DRAIN, and DRY their vessel.

Sample Collection and Specimen Identification

Greeters are not required to identify the material they remove during an inspection. However, if you would like to identify the sample, please follow the guidelines in the handout "*Intercepting Aquatic Organisms: What to do when an aquatic organism has been found during a greeter inspection*" and use the identification guides provided by VTDEC. Contact VTDEC immediately at (802)828-1535 if the watercraft was last in a body of water that does not have a known infestation of the plant or animal that was intercepted (see *Infested Water Bodies List*).

Laws and Regulations

While greeters do not have any law enforcement or regulatory authority, it is important to be aware of the laws pertaining to aquatic invasive species so that you can inform the public. Below is a quick reference to Vermont laws pertaining to aquatic invasive species.

10 V.S.A. § 1454. TRANSPORT OF AQUATIC PLANTS AND AQUATIC NUISANCE SPECIES

No person shall transport an aquatic plant or aquatic plant part, zebra mussels (*Dreissena polymorpha*), quagga mussels (*Dreissena bugensis*), or other aquatic nuisance species identified by the secretary by rule to or from any Vermont waters on the outside of a vehicle, boat, personal watercraft, trailer, or other equipment. This section shall not restrict proper harvesting or other control activities undertaken for the purpose of eliminating or controlling the growth or propagation of aquatic plants, zebra mussels, quagga mussels, or other aquatic nuisance species.

VERMONT AGENCY OF AGRICULTURE, FOOD & MARKETS QUARANTINE #3 - NOXIOUS WEEDS

Whereas, the Vermont Agency of Agriculture, Food & Markets having found that certain noxious weeds outcompete and displace plants in natural ecosystems and managed lands; and Whereas, competition and displacement of plants by certain noxious weeds has significant environmental, agricultural and economic impacts; and Whereas, it has been determined to be in the best interest of the State of Vermont to regulate the importation, movement, sale, possession, cultivation and / or distribution of certain noxious weeds: Therefore, the State of Vermont is hereby establishing this noxious weed quarantine regulation in order to protect Vermont's environmental and economic resources.

TRANSPORT OF LIVE FISH AND USE OF BAITFISH – SUMMARY OF KEY RULES

Personal Baitfish Harvest:

- Personally harvested baitfish may be used only on the same water body from which they were collected.

Commercially Purchased Baitfish:

- A person purchasing baitfish shall retain a transportation receipt issued by a state-approved commercial bait dealer, authorizing transportation of baitfish overland by motorized vehicle. Greeters do not have the power to demand proof of the transportation receipt - only a law enforcement official may do so.
- A transportation receipt shall be valid for 96 hours from time and date of sale.
- Anglers shall not transport baitfish away from state waters by motorized vehicle. Unwanted baitfish shall be discarded dead in the water, on the ice, or safely disposed of in the trash.
- Anglers may purchase baitfish from a New York bait shop for use on Lake Champlain only, provided the bait shop is Vermont-licensed, and the baitfish is accompanied by a Vermont-issued baitfish transportation receipt. Likewise, anglers may purchase baitfish from a New Hampshire bait shop for use on the Connecticut River and its setbacks only, provided the bait shop is Vermont-licensed, and the baitfish are accompanied by a Vermont-issued baitfish transportation receipt.

Note: As a greeter, you do not have the authority to require a boater to present a bait receipt, and you should NOT ask for such a receipt. Water provided by a certified bait shop for the purpose of transporting legal live bait is considered to be sterile and allowable under the law. You do not need to request that this water be drained.

When should I contact law enforcement?

Generally speaking, you should never hesitate to contact the authorities, whether a local warden or state police, if you believe it to be warranted. They can decide if a certain situation requires their immediate response, but are appreciative to be informed of all concerning activities at a public access. As a greeter, you serve as a deterrent against illegal activities at public access areas. Wardens are aware of this and are usually eager to support you anyway they can.

Situations in which it is advised to contact a warden/state police/town constable:

- ✓ **ANY** time in which there is risk to public well-being. This includes:
  - Someone operating, or with the intent to operate, a vehicle (motor vehicle or watercraft) while under the influence of drugs or alcohol.
  - Physical altercations at the access area, or verbal altercations that you feel may escalate into physical altercations.
  - A serious injury at the public access area.
- ✓ Illegal drug use at the public access area.
- ✓ Intentional disregard for the law.
  - If a person is knowingly breaking the law (bait transport, transport of aquatic plants, others), you may call law enforcement if they continue to ignore regulations.
- ✓ Any other time specified by your local warden.
  - It's a good idea to get to know your access area's warden, and ask them if there are other situations in which they would like you to contact them. For example, some wardens may want to be alerted about people swimming or walking dogs at the access area, which are non-permissible uses. Other wardens may only want to be notified of more egregious offenses.

Situations in which contacting the authorities is probably not necessary:

- ✓ Minor, accidental offenses.
  - If someone drives away with an aquatic plant hanging off of their trailer, especially if it wasn't noticed during the inspection process, a call to law enforcement is probably not necessary. Despite the boater technically being in violation of the law, it is unlikely that a warden would deem the situation worthy of response. If you notify a boater of a violation, and they ignore you or become belligerent, then you may consider notifying authorities.
- ✓ Someone that refuses to speak to you or declines the inspection process.
  - Remember, the inspection process is voluntary. A boater can flatly deny an interaction with a greeter.

Use your best judgement as to what constitutes the need for a call to law enforcement. When in doubt, do not hesitate to ask your local warden.

Program Administration

Public Access Greeter Training

If you are a new greeter or program coordinator, or simply interested in aquatic invasive species spread prevention, consider attending a VTDEC public access greeter training workshop offered annually. Topics covered will include:

- ✓ Aquatic invasive species biology, threats to Vermont, and the importance of spread prevention
- ✓ Hands-on aquatic invasive species identification
- ✓ Access area rules and regulations, baitfish regulations, and invasive species laws
- ✓ Invasive species messaging and tips on interacting with the public

This training manual, sandwich board "Greeter on Duty" signs, educational handouts and identification resources are free to any Vermont Greeter Program. Join Vermont Lakes Program staff at an annual training workshop and stay informed and up-to-date on aquatic invasive species in Vermont, and learn the best practices for preventing the spread of these harmful species!

How to Start a Greeter Program

The Vermont Public Access Greeter Program is a network of independently operated programs that receive technical support from VTDEC. Programs are frequently the result of concerned individuals who live on or near a lake or pond, or a unified organization such as a lake association or town conservation commission. If you are interested in starting a Public Access Greeter Program on a water body you care about or frequently visit, consider the following:

Public access area ownership and permitting

Permission or permits may be required before stationing a greeter program at a public access, depending on access ownership. The Vermont Department of Fish & Wildlife Department (VTDFW) requires that you apply for and obtain a Special Use Permit (SUP). Below are SUP frequently asked questions:

Q: Who do I contact if I want to obtain a SUP so that I can start or maintain a Public Access Greeter Program at a VTDFW access?
A: Mike Wichrowski, Facility and Lands Administrator at email mike.wichrowski@vermont.gov or (802) 917-1347.

Q: If I have an established (ongoing) greeter program at a VTDFW public access, do I need to contact VTDFW annually?
A: SUPs are issued for a brief period of time, typically one season. Provide VTDFW with an updated SUP application annually, similar to the previous year's request.

Q: When do I need to get a SUP?
A: Applications should be submitted to VTDFW at least 30 days in advance.

Access use patterns

To determine when to best staff a public access area, determine when the access is most frequently used and then review available funds to target monitoring during high-use times. In general, high-use times fall between Memorial Day and Labor Day. Weekends and holidays from 5:00 to 10:00 AM and from 3:00 to 7:00 PM typically represent highest use.

Funding

Public access greeter programs are eligible for funds under the ***Aquatic Nuisance Control Grant-in-Aid Grant Program***. The Grant-in-Aid Program provides financial assistance to municipalities for aquatic nuisance species management programs, including spread prevention programs like public access greeter programs. Funding for Grant-in-Aid grants comes from a portion of annual revenues from motorboat registration fees and often federal funds. Below are frequently asked questions regarding the Grant-in-Aid Program.

Q: Who may apply?
A: The applicant must be a municipality. Local interest groups such as lake associations must apply through the municipality in which the waterbody is located. If the waterbody is located in more than one municipality, affected municipalities may, but are not required to, apply jointly.

Q: How are projects selected?
A: Grant awards are made to priority projects to the extent funds are available. Projects designed to manage new infestations of aquatic nuisances are the first priority. Projects to prevent or control the further spread of aquatic nuisance species are given second priority. Third priority is granted to recurring maintenance projects (e.g., mechanical harvesting programs). Grant awards are made on an annual cycle; typically, applications are available in December and due in February, with funding decisions made in the spring.

Q: What are the funding requirements?
A: Municipalities may be awarded a grant for up to 75 percent of the total estimated project cost. Grant recipients must contribute at least 25 percent of eligible project costs through in-kind labor (unpaid personnel), in-kind services, and/or actual cash expenditures (all from non-state sources). If federal funds are awarded, the match requirement may be greater than 25 percent. Only in-kind match accrued during the grant project year is eligible. The amount of the final grant award will not exceed 75 percent of the final eligible project cost. Other sources of grant funds may be available to support a greeter program. We encourage you to research and inquire about other potential funding sources. Aquatic invasive species are a form of biological pollution; preventing spread and new introductions are an environmental priority.

Staffing your program

Decide if your program will be staffed by paid employees, volunteers, or a mixture of the two based upon your needs and available resources. If you are planning on having volunteers be greeters and your program will be based at a State of Vermont public access, each volunteer will need to sign and submit a volunteer form. The form is provided by VTDEC. Completed forms should be returned *before* a volunteer participates in your program.

Additional Resources

This manual, and all of the resources referenced therein, can be found online on the VTDEC Aquatic Invasive Species Program website at http://dec.vermont.gov/watershed/lakes-ponds/aquatic-invasives. Contact Josh Mulhollem at josh.mulhollem@vermont.gov or (802)490-6121 with any questions, comments, or concerns about greeter programs or aquatic invasive species in Vermont.

- VTDEC Greeter Program Datasheet
- VTDEC Greeter Program Summary Form
- Intercept Reporting and Sample Submission Form
- Vermont Infested Waterbodies List
- Vermont Invasive Patrollers

Contacts

Vermont Public Access Greeter Program, General AIS questions
Josh Mulhollem
Email: josh.mulhollem@vermont.gov
Phone: (802) 490-6121

Aquatic Nuisance Control Grant-in-Aid Grant Program, Vermont Invasive Patroller Program
Ann Bove
Email: ann.bove@vermont.gov
Phone: (802) 490-6120

Vermont Department of Fish & Wildlife, Facility and Lands Administration
Mike Wichrowski
Email: mike.wichrowski@vermont.gov
Phone: (802) 917-1347

Vermont Department of Fish & Wildlife Law Enforcement
Phone: (802) 828-1529 or (802) 828-1483

See VT Department of Fish and Wildlife Laws and Regulations handbook for individual warden contact info

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www.dec.vermont.gov/watershed/lakes-ponds