STATE OF WYOMING

AQUATIC INVASIVE SPECIES

WATERCRAFT INSPECTION

AND DECONTAMINATION MANUAL

Conserving Wildlife – Serving People

Revised 2015

This manual was originally adapted for Wyoming in 2010 from the Colorado Department of Natural Resources "Aquatic Nuisance Species (ANS) Watercraft Inspection Handbook" and the Colorado Parks and Wildlife "Aquatic Nuisance Species (ANS) Watercraft Decontamination Manual" and has been modified annually.

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Revised February 2015

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What are Aquatic Invasive Species (AIS)?

"Aquatic invasive species means exotic or nonnative aquatic organisms that have been determined by the Commission to pose a significant threat to the aquatic resources, water supplies or water infrastructure of the state" as stated in the 2010 Wyoming Aquatic Invasive Species Act.

Aquatic invasive species (AIS) are also called aquatic nuisance species, nonnative species, exotic species, non-indigenous species, weeds, or pests. They can be plants, such as hydrilla or Eurasian watermilfoil, or animals such as zebra and quagga mussels or rusty crayfish. Invasive aquatic plants have adapted to living in, on, or next to water, and can grow either submerged or partially submerged in water. Invasive aquatic animals require a watery habitat, but do not necessarily have to live entirely in water.

Aquatic invasive species threaten native species and interfere with recreation, aquatic food webs, municipal, commercial, and agricultural water supply and distribution. In their native environments, invasive species are typically held in check and controlled by predators, parasites, pathogens, or competitors. However, when they are transported to a new environment, the natural checks are usually left behind, giving invasives an advantage over native species and making them very difficult, if not impossible, to control.

What is the purpose of this AIS manual?

This manual outlines standard watercraft inspection and decontamination procedures to be followed by authorized AIS inspectors to prevent the spread of AIS into and within Wyoming. While this manual emphasizes the two most threatening AIS to Wyoming, zebra and quagga mussels, the procedures apply to all AIS. The procedures in this manual apply to watercraft of any and all kinds. It includes motors, trailers, compartments and any other associated equipment or containers that routinely or reasonably could be expected to contain or have come in contact with water.

What are zebra and quagga mussels?

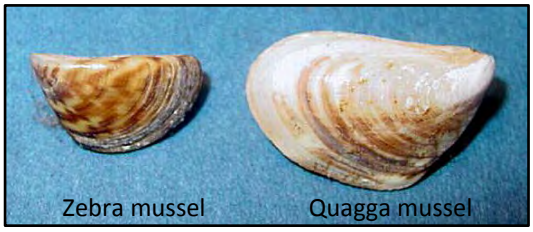


Photo by USGS

Zebra and quagga mussels are freshwater bivalve mollusks (animals with two shells). It is very difficult to tell the two species apart in the field. The shell color of both mussels varies from a yellowish to darker brown, often forming stripes. Larvae are microscopic whereas adults can reach up to two inches long. The zebra mussel is nearly triangular in shape and the quagga mussel is more rounded. Unlike native North American freshwater mussels, which burrow in soft sediment, adult zebra and quagga mussels can attach to hard surfaces using small byssal threads.

Both zebra and quagga mussels can survive cold waters, but cannot tolerate freezing. They can endure temperatures between 33° F and 86°F (1°and 30°C). Zebra mussels need temperatures above 54°F (12°C) to reproduce while quagga mussels can reproduce in waters as cold as 48°F (9°C). The embryos are microscopic. The larvae, called veligers, are planktonic and free-floating. The veligers float in the water column or are carried in the current for about four to eight weeks. The larvae develop shells and settle onto any solid surface, including the skin or shells of native aquatic species. Zebra mussels are native to the Black and Caspian Seas. They were discovered in the Great Lakes in 1988 and have since spread to 34 states in the United States. Quagga mussels are native to the Dnieper River Drainage in the Ukraine, and were first found in the Great Lakes in 1989.

How did the mussels get to North America?

Zebra and quagga mussels were likely introduced into the Great Lakes in the discharged ballast water of ocean-going ships. They likely made their way to the western United States on trailered watercraft. Invasive mussels are now currently found in most of the eastern states, and some western states, such as Colorado, Utah, Nebraska, California, Arizona, and Nevada. The U.S. Geological Survey (USGS) updates an occurrence map for both species at http://nas.er.usgs.gov/taxgroup/mollusks/zebramussel/ (Figure 1).

Aquatic invasive species often hitch rides to other bodies of water on boats, trailers, and equipment that people transport from place to place. Boaters and anglers can inadvertently transport AIS on waders and in bait buckets and live-wells.

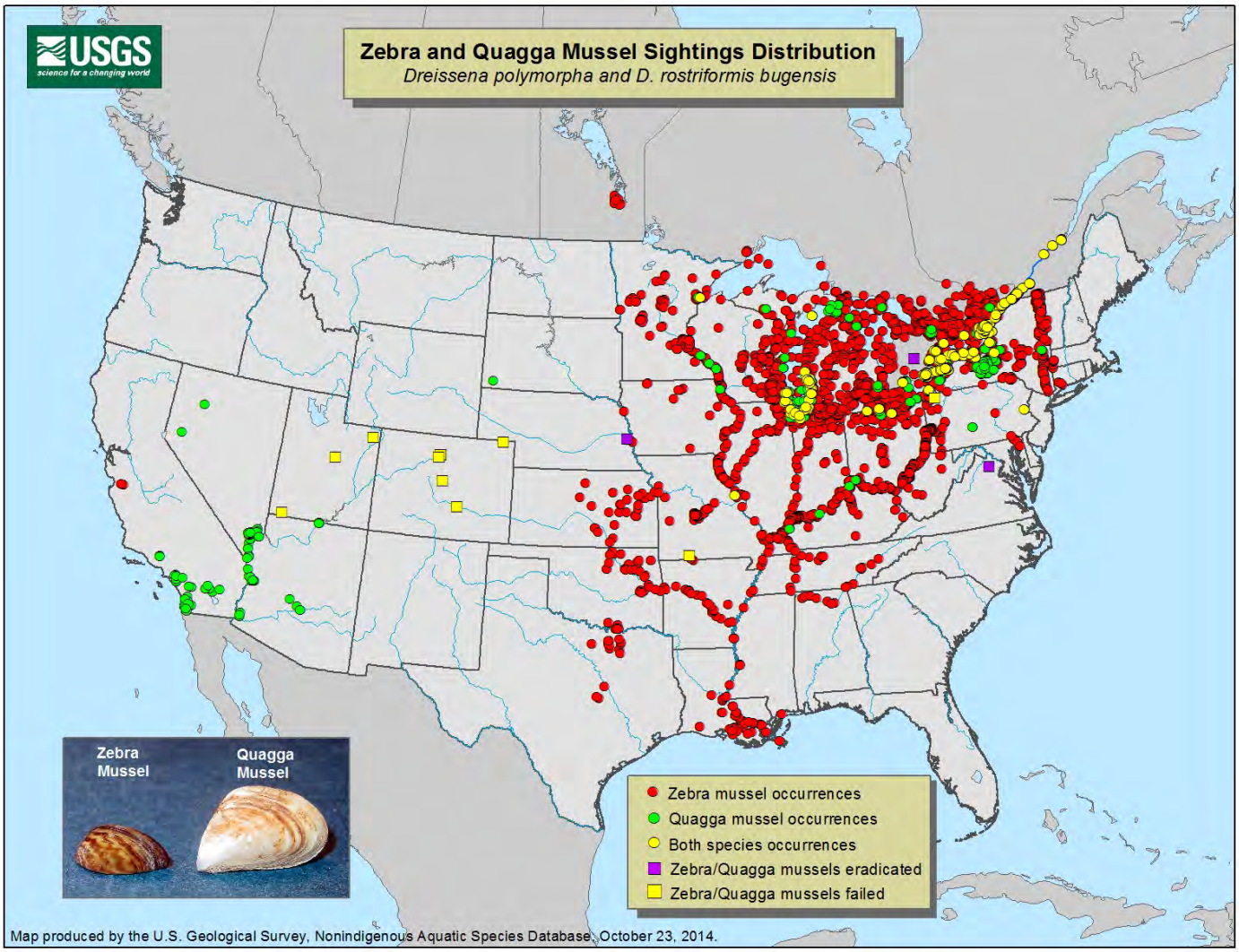


Figure 1. Distribution of zebra and quagga mussels in the United States, as of October 23, 2014.

Why should we be concerned about zebra and quagga mussels?

Zebra and quagga mussels pose a great ecological and economic threat to the state. The invasion of these mussels can affect every Wyoming water user in some way. The impacts could be devastating.

They grow and reproduce quickly.
Zebra and quagga mussels reproduce *exponentially*. They can spawn year-round if conditions are favorable. A single female mussel can produce up to one million eggs a year. Even if only ten percent of the offspring survive, there would be 10 septillion mussels in the waterway at the end of five years! As the mussel population explodes, they cover the bottom and sides of the waterway.

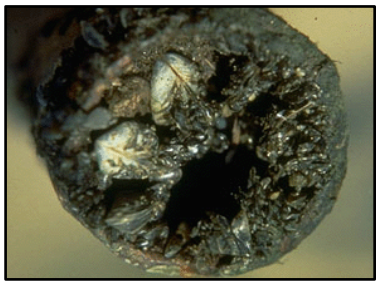


Photo by Craig Czarnecki

They clog water infrastructure, impacting water supply and quality.
Zebra and quagga mussels can attach via byssal threads to hard surfaces. They attach to most underwater structures and can form dense clusters that impair facilities and impede the flow of water. They clog intake pipes and trash screens, canals, aqueducts, and dams—disrupting water supplies to homes, farms, factories, and power plants. Zebra and quagga mussels filter water which leads to increased clarity. However, over time the increased clarity can encourage plant growth which later leads to degraded water quality and can alter the taste and smell of drinking water.

They have significant ecological impacts.
Invasive species have the ability to change aquatic ecosystems and native plant and animal communities. The amount of food the mussels eat and the waste they produce has life-altering effects on the ecosystem and can harm fisheries. As filter feeders, these species remove large amounts of microscopic plants and animals that form the base of the food chain, leaving little or nothing for native aquatic species. Zebra mussels attach to and encrust native organisms, essentially smothering them and removing more animals from the food chain.


Photo by Ontario Ministry of Natural Resources


Photo by Utah Division of Wildlife Resources

They have recreational impacts.
These mussels encrust docks and boats. Attached mussels increase drag on boats. Small mussels can get into engine cooling systems causing overheating and damage. Increased hull and motor fouling will result in increased maintenance and operating costs on watercraft moored for long periods of time. The weight of attached mussels can sink navigational buoys. Zebra and quagga mussels also impact fish populations and reduce sport-fishing opportunities. Their sharp shells can cut the feet of unsuspecting swimmers and beach goers.

They have substantial economic impacts.
As maintenance costs for power plants, water treatment facilities and water delivery infrastructures increase, so does the cost of food and utilities. In the Great Lakes area, maintenance costs in water treatment plants, power plant intakes and dams have been in the billions of dollars. The destruction of sport and commercial fisheries also has a wider economic impact in terms of lost tourism and recreation dollars. Estimated annual costs for mussel control in western states are $1 million per large hydropower facility and $40,000 per municipal water supply system.

They are very difficult to eliminate.
In only two instances have managers been able to eradicate zebra mussels. In Virginia, a large volume of chemical was used to treat a small, unconnected pond to kill the adults and larvae. Managers in Nebraska drained Lake Zorinsky, a 255 acre public lake, for a year, allowing the winter temperatures to freeze out the zebra mussels. Eradicating or treating zebra or quagga mussels in large water bodies or connected waterways in not likely, so prevention is critical.

Researchers continue to try to find ways to eradicate or control zebra and quagga mussels. Zequanox® is a product developed by Marrone Bio Innovations and has proven effective at controlling zebra and quagga mussels in closed systems. Testing is ongoing to determine the products effectiveness and safety in open water. (http://www.marronebioinnovations.com/category/zequanox-news/)

They spread quickly to other water bodies.
Mussels can spread to other bodies of water by attaching to watercraft hulls, anchors, trailers and fishing equipment. They can live up to 30 days out of the water depending on local conditions which allows them to be transported long distances. Larvae can be transported in bilge water, ballast water, and live-wells. Mussel larvae also disperse naturally and can be carried downstream or through water diversions to other lakes and reservoirs.

What can we do?

Educating the public is your most important task.
As an AIS inspector you are the first line of defense against these threats. Your most important task is educating the public. Many lakes and reservoirs in the state will not have inspections, therefore it is essential that you:
1—Show boaters how to inspect their watercraft themselves.
2—Explain why inspection is critical to find mussels and other AIS.
3—Impress on the boater how zebra and quagga mussels damage boats, ruin fishing opportunities, harm the environment and impair water infrastructure.

You need to drive home the primary education message to **DRAIN-CLEAN-DRY** and explain why boaters need to do it ***each time*** they use their watercraft. If watercraft are drained, cleaned, and dried in between waters, AIS are unlikely to be moved to another water.

Working with the public—
Frequently Asked Questions (FAQs)

Many boaters have heard about zebra and quagga mussels and the Wyoming AIS program. The boating public is more likely to comply with and be supportive of the inspection program if they understand how important it is to control these species. That is why **education is the most important component of your efforts** as an AIS inspector. When visitors realize the inspection takes little time and protects Wyoming's waters, they are more likely to comply. You may be asked many questions during the short time you are interacting with boaters during the inspection. Additional AIS information can be found at: wgfd.wyo.gov/AIS.
Here are some of the most frequently asked questions:

What are Aquatic Invasive Species?
Aquatic invasive species are non-native organisms that can cause significant harm to an ecosystem when introduced. Aquatic invasive species such as quagga mussels and zebra mussels are small organisms that could have huge impacts for Wyoming's waters, boaters, and anglers. They can ruin fisheries, clog cooling systems in motorboats, foul hulls, and ruin equipment.

What is a quagga or zebra mussel?
Both are closely related, invasive, freshwater bivalve mollusk species that encrust hard surfaces.

What do quagga and zebra mussels look like?
Quagga and zebra mussels are commonly called 'bivalves,' meaning they have two hinged shells (or valves). Shell color and patterns vary from a dark striped pattern, to a light tan shell with zig-zag stripes, to completely brown or light colored with little striping. These mussels have byssal threads, which allow them to attach to hard surfaces such as boats. Quagga and zebra mussel larvae, or "veligers", are microscopic organisms which float freely in the water. Adults may grow to be up to two inches long. As adults they are usually found in clusters and may live 4 to 5 years.

How did quagga and zebra mussels get to North America?
These mussels were first discovered in Lake St. Clair, Michigan, in 1988. It is believed they were transported to North America in ballast water of large vessels from Europe. Since becoming established in the Great Lakes, they have primarily been transported downstream through water currents and transported over land on trailered boats.

Are quagga and zebra mussels in Wyoming?
These organisms have not been documented in Wyoming, but are present in several bordering states such as Utah, Colorado, and Nebraska. You can help protect Wyoming's waters by making sure you "Drain, Clean and Dry", and by supporting efforts to prevent their introduction into Wyoming

Does Wyoming have any aquatic invasive species?
Yes. There are several AIS in Wyoming, such as New Zealand mudsnails, Asian clam, rusty crayfish, and curly pondweed. These species may cause harm to aquatic ecosystems in Wyoming and it is critical that we prevent them from spreading to new waters. For more information see pages 34-37 in the manual.

What are the potential impacts if quagga and zebra mussels become introduced into Wyoming?
If you use water or electricity, you do not want invasive mussels introduced into our state's waters. These species can have widespread impacts on power plants, municipalities, irrigation systems, and other water users. They impede water delivery and increase maintenance costs by clogging pipes, pumps, turbines, and filtration systems--costs that are all passed on to the consumer. Fisheries are destroyed by the presence of these invasive filter-feeding mussels. Quagga and zebra mussels remove plankton from the water. Plankton are the primary food source for forage fish which are an important food source for many sport fishes. For example, the lake trout population in Lake Ontario declined by 95 percent over a 10 year period due to a crash in the food chain caused by invasive mussels.

What can I do to prevent the introduction of AIS into Wyoming?
Boaters should follow these three simple steps before launching or leaving a body of water:

- **DRAIN** all water from your watercraft including the ballast, bilge, live-well and motor.
- **CLEAN** all plants, mud and debris from equipment and watercraft. Flush all interior compartments and inboard motors.
- **DRY** your watercraft and equipment before launching in a new body of water. Dry your watercraft for 5 days in the summer, 18 days in the spring or fall, or 3 days at freezing temperatures.

Is it mandatory to get my watercraft inspected?
During all times of the year, if your watercraft has been on a high risk water (a water known or suspected to be positive for zebra or quagga mussels) within the last 30 days you are required to have your watercraft inspected prior to launching in Wyoming. Also, if you are transporting a watercraft into Wyoming from out of state from March 1 through November 30, you are required to have your watercraft inspected prior to launching in Wyoming. Additionally, if an authorized inspector determines an inspection is warranted, then an inspection is required prior to launching the watercraft. If you encounter an open check station on your route of travel, you must stop and will be required to undergo an inspection, or show proof of a previous inspection.

How do I know if a water is positive for AIS?
Review the list of high risk waters across the U.S. on the WGFD website (also on page 43 of this manual). Additionally, waters positive for AIS are often posted at boat ramps and launches. If boating out of state, consider reviewing the water's agency website for information or asking for information during your visit. If you are ever in doubt, schedule an inspection in Wyoming before you launch.

What is a watercraft inspection?
At an AIS check station, an authorized inspector will ask a few questions to determine the risk your watercraft poses of transporting AIS. If the watercraft is deemed low risk, the watercraft owner will be provided informational materials, the watercraft will be briefly inspected, and allowed to launch. A watercraft deemed high risk will need to undergo a more thorough inspection. High-risk watercraft may include those last operated on a high risk water, in a state with high risk waters, or watercraft with a large amount of standing water which could harbor larval mussels or other AIS.

Where can I go to get a watercraft inspected?
Watercraft inspections will be conducted at border check stations including port of entries and rest areas throughout the summer (April – September). Additionally, watercraft inspections will be conducted at major waters throughout Wyoming on a rotating basis. Wyoming Game and Fish Department regional offices, private certified inspection locations, and private inspectors can also provide inspections by appointment. A list of locations and hours of operation for watercraft inspections are listed on the WGFD website.

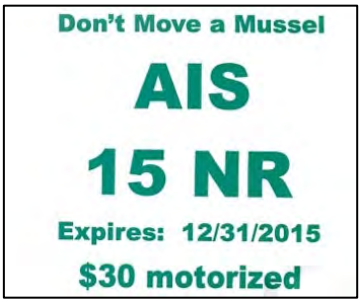
How long will an inspection take?
A standard inspection will take 2-3 minutes. A high risk inspection is more thorough and may take 10-30 minutes depending on the type and size of watercraft.

What can I do to ensure I don't transport AIS and make my inspection quicker?
Before and after you launch in Wyoming, make sure you follow the Drain, Clean, and Dry procedure. Transporting a clean and dry watercraft will allow you to quickly move through the inspection process. One tip, leave the bilge plug out until you reach the boat ramp to allow your boat to drain thoroughly.

What is a watercraft "seal"?
Wyoming authorized AIS inspectors may apply a seal to watercraft after it has been inspected or decontaminated. A seal will expedite the next launch for a boater when applied after an inspection, and will serve to document an inspection or decontamination.

What happens if my watercraft needs to be decontaminated?
An authorized decontaminator will spray the exterior and flush the interior compartments with scalding (120°F to 140°F) water to remove and kill any AIS that may be on the watercraft. After decontamination, the watercraft will be inspected again to ensure the decontamination was successful. Watercraft that are found to harbor AIS may require a quarantine period to kill any AIS not killed during a decontamination.

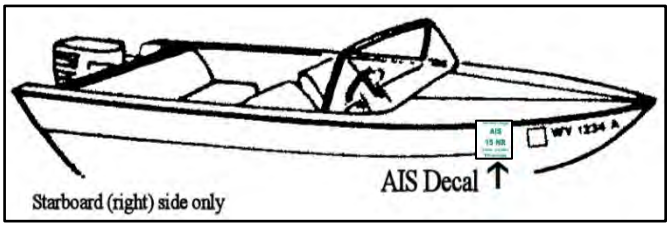
Can I disinfect my watercraft using bleach or other chemicals?
No. Hot water or drying are the only approved watercraft decontamination methods in Wyoming. Chemicals, such as bleach, have not been proven to be effective in removing all AIS and may damage your watercraft and equipment.



What will the AIS decal fees be used for?
Fees collected for the decal will help fund the AIS program in Wyoming. These fees assist in providing programs to educate the public about AIS and prevention efforts to keep AIS from being introduced into Wyoming such as watercraft inspections, enforcement, and implementation of AIS regulations.

Why are only boaters being charged for the decal?
Watercraft are the primary means that AIS, especially zebra and quagga mussels, are transported and therefore are the greatest risk for spreading AIS to and within Wyoming. We do not yet have any confirmed waters with invasive mussels, but waters could have mussels in them before we can detect them. So, all watercraft present a risk for transporting AIS. It is very important for all boaters, even those only boating in Wyoming, to follow the Drain, Clean, and Dry protocol. In addition to decal sales, the Wyoming legislature appropriates general fund monies to fund AIS prevention activities – this money is paid by all Wyoming residents to help protect our waters.

Where do I place the decal on my watercraft?
Owners or operators of motorized watercraft required to purchase an AIS decal should display the decal on the starboard (right) side of the bow, six inches left of and directly in line with the watercraft registration decal. For non-motorized watercraft, AIS decals should be displayed on the bow in such a manner that the decal is visible when the watercraft is underway.



Does the decal indicate a watercraft has been inspected?
No, a decal is not proof a watercraft has been inspected. The decal is a funding mechanism for the AIS program. An inspection is not required in order to get a decal.

How long are AIS decals valid for?
Decals are valid for the calendar year; they will expire on December 31 of year purchased.

What is the fee structure for the decal?
Motorized watercraft registered in Wyoming = $10 AIS decal (Can be purchased for 3 years for $30)
Motorized watercraft registered in any other state = $30 AIS decal
Non-motorized watercraft owned by a Wyoming resident = $5 AIS decal
Non-motorized watercraft owned by a nonresident = $15 AIS decal
Non-motorized inflatable watercraft 10 feet in length and under are exempt from the decal requirement.

What information is needed to purchase a decal?
A boater will need to know the make, model, type (canoe, motor boat, kayak, etc), year and length of their watercraft. The boat is not required to be registered in order to purchase a decal, although if it is, the boater will need to know the registration number. They will also need an ID or at least know the information needed to look up or create an account with WGFD. An AIS inspection is not needed to get a decal.

What are the AIS Requirements for Yellowstone National Park?
Prior to being issued a boat permit and launching into any of Yellowstone's waters, all boats (including float tubes) are required to be inspected for AIS. If the boat is used outside of Yellowstone after it has been inspected, the boat will need to be re-inspected. As a precaution, any type of watercraft suspected of harboring AIS will be subject to a non-chemical decontamination treatment. There is no fee for the inspection or decontamination.

What types of inspections will I do?

You will be doing three types of inspections depending upon the situation. Each type of inspection will be described in detail later in this manual.

Standard Inspection - This inspection procedure applies to **all watercraft** before **entering** the water or at state borders. The procedure should take about two to three minutes.

High Risk Inspection - This protocol is used on watercraft found to be a high risk for transporting AIS because of use in a **high risk water (a water positive for mussels or other AIS),** use in a **high risk state (any state with known high risk waters)**, or because of standing water in the watercraft. This is intended to be a very thorough inspection that may take 10 to 30 minutes depending on the type and size of the watercraft.

Exit Inspection - This is a quick procedure for checking **watercraft leaving** the water. This one minute inspection ensures that contact has been made with the boater before they leave the boat ramp and verifies the watercraft is **drained and cleaned** prior to leaving. Make sure the owner pulls all plugs and live-wells are empty.

What are my priorities as an AIS inspector?

As an AIS inspector, you need to do **five** things:

1. Ensure Personal and Public Safety

Your safety and the safety of the public is your top priority at all times. Many vehicles and people will be moving around the inspection area. People will be looking under wheels and through watercraft. You will need to make sure all efforts are made to ensure the safety of everyone involved.

2. Educate Boaters

Every contact you make with boaters must educate them about the importance of controlling AIS. Boaters must realize AIS are spread by their actions (or inaction). They must understand they have a lot to lose, in terms of access and recreational opportunities, if they do not help in this effort.

The primary education message is **Drain – Clean – Dry**

Drain—All water must be drained from the watercraft. This includes any water in the ballast, bilge, live-well, bait well, storage compartments, deck, water delivery systems, cooler, trailer, engine, or any equipment.

Clean—There should be no visible signs of AIS or attached vegetation, dirt, mud, debris or surface deposits on any part of the watercraft or equipment.

Dry—There should be no visible sign of standing water or wetness on or in the watercraft, trailer, engine, or equipment. Dry using a towel or sponge. Allow watercraft or equipment to dry for 5 days in the summer, for 18 days in the spring/fall or for 3 days in freezing temperatures. Leave wet compartments open to dry.

When educating **stay positive**! You will contact hundreds of boat owners during the season and their experience with the program will depend on you. A polite positive approach can be the difference between a pleasant and productive contact and an adversarial encounter. Find something to compliment the boat owner about. Have an understanding of the waters in the area, and offer that information (camping opportunities, local weather forecast, fish species present, how the fishing has been recently, etc).

3. Perform Standard Inspections

You must be able to inspect a large number of watercraft quickly and thoroughly. Work quickly to avoid traffic build-up and boater frustration at the inspection site, but you must **perform inspections the same way each time and be thorough** enough to assess the risk of all watercraft. The *Standard Inspection Checklist* (page 14) should help you move through each watercraft efficiently.

4. Identify High Risk Watercraft and Perform High Risk Inspections if Necessary

If a watercraft is determined to be high risk, you will need to conduct a more thorough High Risk Inspection.

5. Decontaminate

If you find evidence of mussels, other AIS, high risk standing water, or find reason to believe the watercraft may have AIS, the watercraft must be decontaminated. First, you must collect samples of the suspected AIS, and then complete the *Watercraft Decontamination Form* (page 19) and the *Supplemental Watercraft Decontamination Forms* (pages 32-33). In rare instances, you may require the assistance of law enforcement personnel to decontaminate a watercraft. Law enforcement is required if a person refuses an inspection or decontamination.

Law enforcement may determine that **quarantine** of a watercraft is necessary if:
1. The owner refuses decontamination and the watercraft must be quarantined to allow dry time to kill AIS.
2. Live juvenile or adult mussel is found during an inspection-in this case the watercraft should be decontaminated and then quarantined for the allotted dry time to ensure any mussels not killed during the decontamination will be killed with drying during quarantine. Information to determine the length of quarantine required for a watercraft is discussed in more detail on page 34.

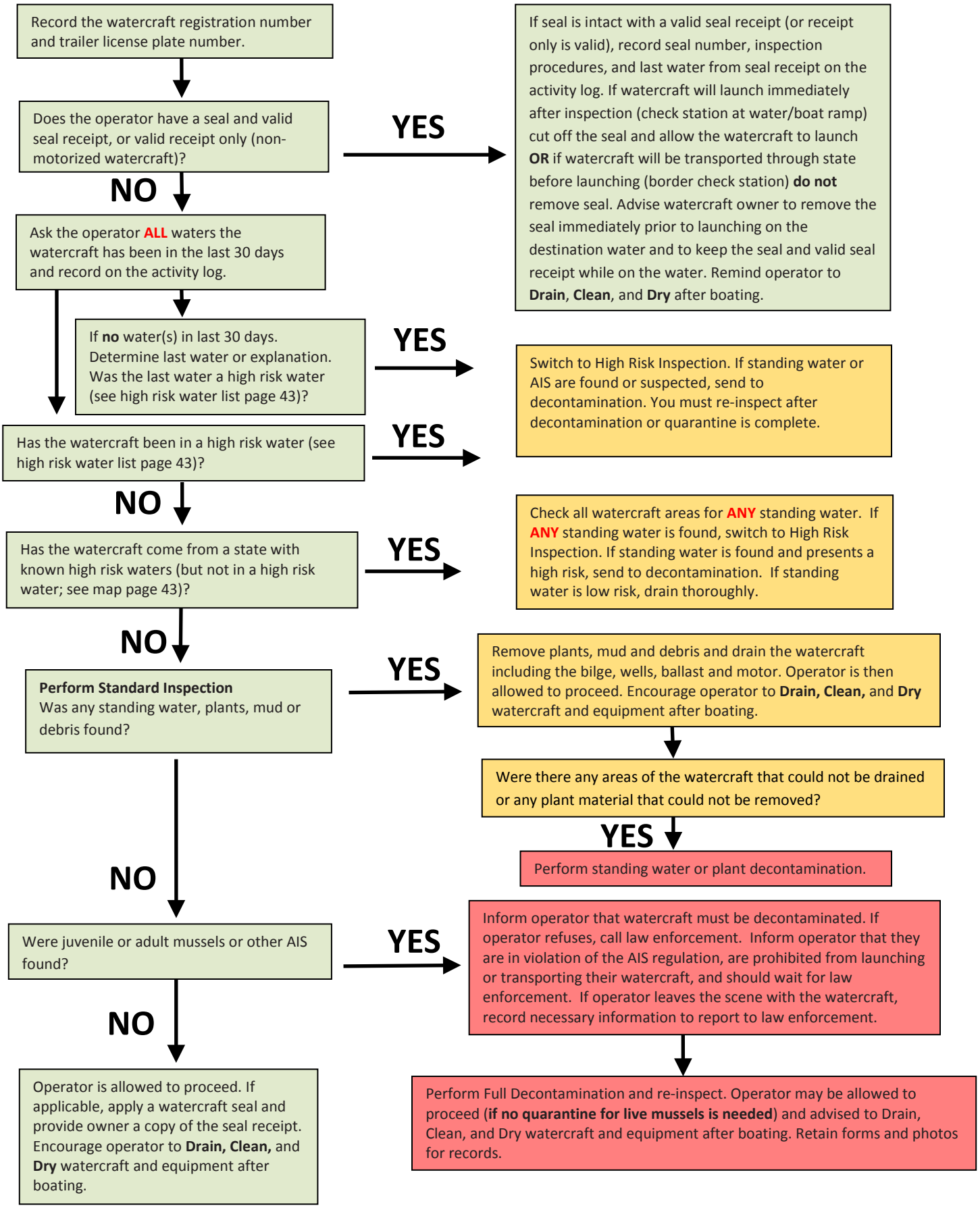
Which watercraft poses the highest risk for transporting mussels and other AIS?

While all watercraft and floating devices (including their contents, motors, anchors, wells, trailers, and other associated equipment) have the potential to transport AIS, watercraft moored at marinas pose the highest risk, especially commercially hauled watercraft. Mooring of watercraft (in excess of 24 hours) provides greater opportunity for mussels and other AIS to attach to watercraft. Non-motorized watercraft have lower biological risk but can still transport AIS and must be inspected. Pets and personal equipment such as waders, fishing gear, and decoys usually pose very low biological risk for mussels. However, there is still a high possibility pets and equipment will transport other AIS, such as New Zealand mudsnails. Educate the public to clean and dry personal equipment and pets, especially if leaving an infested body of water.

Different risk levels will require different inspection procedures:

Watercraft Type	Risk Level
House Boats Cabin Cruisers	High Biological Risk—Requires thorough inspection
Ski Boats with Ballast Tanks Large Open Boats Sail Boats Wakeboard Boats	Medium to High Biological Risk—May need high risk inspection. Verify that no mussels or other AIS can be found on hull, engine, or trailer and that ballast, bilge, and live-wells are drained. There should be no mud or plants on the watercraft, trailer or equipment.
Smaller Open Boats with outboard motors (no live-wells, no bilge tanks) Personal watercraft (PWC, Jet Skis)	Medium Biological Risk – Inspect the hull, trailer and interior of the watercraft. There should be no mud or plants on the watercraft, trailer or equipment.
Non-motorized watercraft: Canoes, Kayaks, Rafts, Drift Boats	Low Biological Risk—Ensure the watercraft are Drain, Clean, and Dry. Educate the public to clean and dry between launches. If the watercraft are very dirty, request that they be cleaned prior to launch.

What is the protocol for inspecting all watercraft?



What equipment do I need for inspections and decontaminations?

A designated inspection area should be identified with signage identifying its location. Inspectors will need to be sure the following equipment and materials are available:

Safety Equipment

- ☐ Traffic cones
- ☐ Trailer chocks (optional)
- ☐ First Aid Kit
- ☐ Inspection station signage
- ☐ Warning light (amber light)

Inspection Staff Equipment

- ☐ Staff identification (shirt, name tag, hat)
- ☐ Chair
- ☐ Drinking water
- ☐ Access to shelter in case of weather
- ☐ Sun block
- ☐ Trash bags

Inspection Equipment

- ☐ Inspection checklists/forms
- ☐ Receipt Book
- ☐ Radio or cell phone
- ☐ Clipboard
- ☐ Pen/pencil
- ☐ Inspection mirror
- ☐ Bilge pump
- ☐ Sponge
- ☐ Wire seals and seal receipts
- ☐ Wire cutters

Inspection equipment continued

- ☐ Magnifying glass
- ☐ Flashlight
- ☐ Clean water supply at the check station
- ☐ Bait fish buckets
- ☐ Wrench

Decontamination Equipment

- ☐ Decontamination unit with attachments
- ☐ Catch basin and pump
- ☐ Watercraft decontamination forms
- ☐ Safety glasses
- ☐ Gloves
- ☐ Digital camera
- ☐ Tool kit
- ☐ Garden hose
- ☐ Earplugs
- ☐ Coveralls
- ☐ Infrared thermometer
- ☐ Specimen collection kit

Educational Materials

- ☐ AIS brochures
- ☐ Boating regulations
- ☐ Fishing regulations

Where should watercraft inspection and decontamination stations be located?

Ideally, AIS inspections, draining, and decontamination should be located in the same general area. There should be clear control points so that watercraft can be prevented from launching until they have been through the AIS check station. The location should be far enough from the water or boat ramp that drained bilge/ballast/well water cannot flow into the water body. Decontaminations should be conducted away from the water and water should be collected in a catch basin if necessary. Collected water can then be pumped to a "high and dry" location for evaporation.

What is the protocol for Standard AIS Inspections?

Standard inspections are required for all watercraft that encounter an AIS check station. This is the most common type of inspection that will be conducted. The procedure will take two to three minutes. Every inspection must be recorded on the Activity Log (page 16) or an electronic data recorder. The *Standard AIS Inspection Checklist* provided in this manual (page 15) is not a required form to fill out, but will assist you in performing the inspection quickly and efficiently.

Direct Watercraft to Inspection Site and Initiate Contact

The importance of education cannot be overemphasized. Not every reservoir or lake in Wyoming will have AIS check stations, so it is **essential to show boaters how to inspect their own watercraft** and explain *why* we are doing this. Impress on the boater how AIS damage boats, gear, fisheries, and water infrastructure. Provide brochures or other information. Share the primary education message, **Drain-Clean-Dry**, and explain why it is important to always keep their watercraft and gear drained, clean, and dry. **Emphasize to boaters that they will need to empty all water (bilge, ballast, live-well) from their watercraft when they leave a water.**

Ensure Personal and Public Safety

Aquatic invasive species check stations should be designed to handle a lot of traffic and should have clear signs and unambiguous lane designations. You **must** ask the driver to turn off the engine, put on the parking brake and step out of the vehicle. You will have to climb on the watercraft and look under the trailer, so take precaution and ensure personal and public safety.

Initial Assessment

In order to speed up the inspection process for boaters we are using a wire seal system (page 20). When a watercraft is inspected at an off-water location (i.e. border check station or WGFD regional office) an inspector **must** apply a wire seal and provide the boater with a seal receipt to document the inspection. The next time the boater launches, the inspector should check that the seal is intact, that the receipt is valid, and allow the boat to proceed with no further inspection. In addition, a seal may be placed on a boat after an exit inspection on watercraft leaving a water. A seal should also be placed on a boat after decontamination if the boat is not launching immediately after. If a watercraft enters your inspection station and has a wire seal, follow the protocol outlined on page 21.

Determine Risk Factors

You will need to look at a lot of watercraft quickly and determine if there is a high risk. You will be able to move low risk watercraft through an inspection very quickly. Situations that pose higher risk include watercraft that have been in high risk waters, watercraft coming from a state with known high risk waters, watercraft with standing water, or watercraft that show a lot of dirt and grime below the watercraft's waterline. If you determine that you have a high risk watercraft, you will need to proceed with the High Risk Inspection protocol (page 18). If the watercraft is low risk, continue with the Standard Inspection protocol.

Rapid Exterior Inspection

Again, it is important to explain what you are looking for and educate boaters so that they can inspect their own watercraft. It is important to start and end the inspection at the same place on each watercraft. Look the watercraft over and feel the hull with the owner. Both you and the owner should feel the ridges, seams, and recessed bolts of the craft. The young mussels may feel like bumps or sandpaper on the craft. If you or the owner feels a rough spot, look for attached mussels. Carefully check the rear of the watercraft, including intakes, upper and lower motor areas, and the propeller. Ask to see the anchor(s) and inspect thoroughly for mud and plants. Trailers can pose as high a risk as watercraft, so carefully check trailer rails, lights and electrical wires, as well as the license plate and trailer pads. If adult or juvenile mussels are found on either the watercraft or the trailer, complete a *Watercraft Decontamination Form* (page 19), then send the watercraft and trailer to decontamination.

Ensure the Watercraft is Drained

On smaller watercraft, ask the owner to **remove** the **bilge plug** (and other plugs if needed) and drop the motor to show the watercraft is drained. For larger watercraft, you will need to get into the watercraft to look in the live-wells or other holding areas. Ask for permission and **ask the owner to climb in first**. Follow the owner into the watercraft in the same way they entered. Be careful to prevent injury to either the owner or inspector. Then, ask other inspectors to **stand clear** so that the owner can **activate** the **bilge pump** to show the watercraft contains little or no water. Then, ask to see **all live-wells** and **ballast tanks**. If the watercraft has standing water in any container, follow the procedures outlined on page 17 of this manual. Ensure the boater has fully drained the live-wells, ballast tanks, and any other containers or compartments that could reasonably hold water. Using the guidelines on page 17, determine the risk of any standing water still present and determine if a High Risk Inspection and Decontamination is necessary or if the watercraft has been drained sufficiently and presents low risk.

Closeout

When the inspection is completed, ask the owner to replace the bilge plug. The owner is responsible for ensuring their watercraft is water-tight. **Thank** the owner and tell them they can launch. Remind them to **Drain, Clean,** and **Dry** upon exiting.

Standard AIS Inspection Checklist

For use inspecting watercraft entering Wyoming waters. These are instructions - this is not a form to fill out. Remember to complete an entry on a paper Activity Log, or data recorder every time an inspection is conducted.

1. Initial Contact

- ☐ **Record watercraft registration #** on *Activity Log* (page 16).
- ☐ **Introduce yourself** and explain that you will be **inspecting for mussels** and other AIS.
- ☐ **Explain** that zebra and quagga mussels have not been found in Wyoming but are present in neighboring states.
- ☐ **Explain** why it is important to **Drain-Clean-Dry**
- ☐ **Give** boater AIS brochure.
- ☐ Ask the driver to **turn off engine, set parking brake,** and **step out**.

2. Initial Assessment

- ☐ Check for **Wire Seal** or ask for receipt only on non-motorized watercraft.
- ☐ If a wire seal (or receipt only) is present, **ask for the wire seal receipt** and follow procedures on page 21.

3. Determine Risk Factors

- ☐ Ask all waters watercraft has been at within the last 30 days.
  - ☐ Has the watercraft been in a high risk water?
  - ☐ Has the watercraft been in a state with high risk waters?
  - ☐ Does the watercraft contain ANY standing water?
  - ☐ If no water(s) w/in 30 days determine last water. Was the last water a high risk water?

If the watercraft has been in high risk water(s) switch to High Risk Inspection
OR
If the watercraft has been in high risk state within 30 days and has ANY standing water, switch to High Risk Inspection

4. Exterior Inspection

- ☐ Explain/educate about what you're looking for.
- ☐ Look the watercraft over, feel hull, ridges, seams, and recessed bolts for attached mussels.
- ☐ Carefully check the rear of the watercraft—intakes, motor, lower motor areas and propeller.
- ☐ Ask owner to **lower motor** to drain any water.
- ☐ Inspect anchor for mud or plants.
- ☐ Carefully check trailer lights/electrical, license plate and trailer pads.
- ☐ Clean off all mud, plants and debris.

If juvenile or adult mussels are found,
the watercraft MUST be decontaminated.

5. Ensure Watercraft Drained

- ☐ On smaller watercraft, ask the owner to **remove bilge plug** (and other plugs if needed) to show the watercraft is drained.
- ☐ On large watercraft, ask the inspectors to stand clear, then ask owner to climb in and **activate bilge pump** to show the watercraft contains little or no water.
- ☐ **Inspect** interior of the watercraft and **drain all wells, ballast tanks, compartments,** and **containers** with standing water.

*If standing water cannot be completely drained and presents a **high risk**, **decontaminate** after completing the inspection**.** If any plant material cannot be removed, **decontaminate!***

6. Closeout

- ☐ Ask owner to **replace bilge plug**. Owner is responsible to ensure it is water-tight.
- ☐ Ensure all the inspectors are finished looking at the watercraft and that nothing was found.
- ☐ **Apply a watercraft seal and provide owner with a copy of the seal receipt.**
- ☐ **Thank** owner for keeping their watercraft **Drain, Clean,** and **Dry** and allow them to launch.
- ☐ **Complete Activity Log entry.**

State of Wyoming

Location: _____

WATERCRAFT INSPECTION AND DECONTAMINATION ACTIVITY LOG

*See line one for example; **√** = Yes

						Initial Contact and Assessment				Determine Risk Factors						Protocol			Inspection Procedures						Results				
Inspector #	Date (m/d)	Time	Type of Watercraft (O, I, I/O, NM, PWC, JET)	Valid Seal/Receipt	Valid AIS Decal	Watercraft Registration # *In case of non-motorized list type of non-motorized and quantity.	Trailer License Plate #	**If no water w/in 30 days determine last water. If last water was high risk water perform *High Risk Inspection*.	*List most recent water below. Determine if there were any additional waters w/in 30 days and list up to two previous waters with notes on back.	Next Water/State (Destination)	Used within 30 days	Used Out-of-state	Used in High Risk State	High Risk Water	Standing Water	Other (dirty, large and complex)	Standard Inspection	High Risk Inspection	Exit Inspection	Watercraft Exterior Checked	Motor Checked/Drained	Trailer Checked	Remove Bilge Plug and Drain	Interior Checked (bilge/bottom/anchor)	Internal Compartments Checked/Drained	Decontamination (Standing Water/Motor)	Decontamination (Plant)	Decontamination (Suspected AIS)	Seal Applied (seal #-WY)	Accepted Seal # (State-Seal #) *removed if at a water	Notes (#)
1	7/4	1300	I/O	√	√	WY-1234BB	X-1234BB	Lake Powell, UT	Lake Hattie, WY	√	√	√	√	√		√	√		√	√	√	√	√	√	√			WY-12345	UT-67890	1

What if a watercraft contains standing water?

You must pay careful attention to all watercraft that cannot be completely drained and therefore, contain standing water. Aquatic diseases such as whirling disease and zebra and quagga mussel larvae (veligers) are microscopic and can be transported in water. Mussel larvae are usually much less hardy than shelled adults and die quicker and easier, but they have been known to survive in standing water for up to 27 days. It is difficult to pinpoint the exact amount of standing water necessary for larvae to survive-more research is needed in this area. Regardless, areas that maintain water or moisture for extended periods of time may not dry sufficiently and could harbor larvae. Experts believe small amounts of standing water present lower risk if:

- Water temperature is over 90°F.
- Water is oily.
- Compartments with small amounts of water have been closed up and have little or no airflow or oxygen.
- Water is over 30 days old.

If watercraft have been drained to the fullest extent possible and still contain standing water in the bilge, ballast tanks or engines, then you will need to use these facts as a guideline to assess the risks associated with the remaining standing water.

If the watercraft has been in a high risk water in the last 30 days AND has ANY standing water, it is mandatory to perform a standing water decontamination. Even in cases where watercraft have live wells or a ballast tank that can be drained completely, it is mandatory to send the watercraft to decontamination and thoroughly flush interior compartments and ballast for a minimum of 2 minutes. If water is present in the engine, perform a motor flush until exiting water reaches 140°F, or for up to 90 seconds.

If the watercraft has been in a high risk state in the last 30 days and contains ANY standing water, then you must conduct a High Risk Inspection to determine the risk that water poses. If you believe the risk associated with the small amount of water on the watercraft to be very low, you should ensure the watercraft is fully drained. You should have a small bilge pump or sponge available at the inspection station to assist with draining all areas of the watercraft that have ballast or bilge areas that were not designed to drain fully.

If water still persists, as the case may be with ballasts and inboard or inboard/outboard motors, inspectors are advised to decontaminate those areas if the watercraft was used in the last 10 days.

If you believe the standing water is likely to harbor live organisms and presents a higher risk, then err on the side of caution and decontaminate the watercraft.

Be extremely cautious with any watercraft that was used OUT OF STATE. Many states do not have sampling programs focused on early detection to determine whether a water is positive for invasive mussels.

If the watercraft has standing water and the watercraft has NOT been in high risk waters or state with high risk waters, drain all parts of the watercraft that contain standing water including the bilge, wells, ballast and motor and allow it to launch.

Ballast tanks pose a great risk of transporting water. Be sure to inspect any and all ballast onboard the watercraft!

Bilge compartment with standing water. Photo by CPW.

What is the protocol for High Risk AIS Inspections?

Any watercraft identified as high risk during the initial assessment or standard inspection should go through a High Risk AIS Inspection.

A High Risk Inspection is **required** if:

- The watercraft's last water was a high risk water
- The watercraft has been in a high risk state in the last 30 days and has any standing water.

Other High Risk factors to consider:

- The watercraft has a large amount of standing water present.
- The watercraft is dirty, crusty, or slimy below the waterline.
- The watercraft is large and complex with lots of compartments.
- The watercraft's history is unknown or there is unverifiable standing water.

A high risk inspection is a very involved and intense inspection of the exterior and the interior parts of the watercraft that could have come into contact with the water or could hold water. The inspection should include:

- A thorough and **complete visual and tactile inspection** of all portions of the **watercraft, trailer**, and **any equipment or gear, ropes, or anchors**. The time it will take to complete a High Risk Inspection may vary greatly depending on the type and complexity of the watercraft and could range from 10 to 30 minutes or more.
- After you have thoroughly checked the exterior of the watercraft, **check for standing water and wet gear inside the watercraft.** Request permission to climb on the watercraft and, if possible, follow the operator onto the watercraft using the same approach. Be careful not to scratch or scuff surfaces. Spend time looking in compartments or at gear that could contain or have been immersed in water, especially the anchor and anchor compartment. If possible, ask the owner to open the compartments or pull out the gear rather than doing it yourself to avoid damage.
- For larger watercraft, ask the operator to activate bilge pumps and make sure other inspectors are safely away from the propeller and the bilge outlets before pumps are activated.
- All vegetation and mud must be removed since microscopic larvae can imbed in these materials.

High risk everything, including equipment! Photo by CPW.

If sandpapery bumps, mussels, plant material or gelatinous masses are found that you reasonably believe could be potential AIS, decontamination is then required. Also, using the procedures on page 17, if standing water is identified in the watercraft, then decontamination of the tanks or wells could be required.

High risk inspections are a very important tool for determining the risk of watercraft.
There are many factors beyond what are described in this manual that may increase the risk of watercraft.
Inspectors can always err on the side of caution and perform high risk inspections.

State of Wyoming

WATERCRAFT DECONTAMINATION FORM

Decontamination # _____ - _____ - _____
Location Code | Date (mmddyy) | Watercraft Registration #

Inspection Location: _____ Date: _____ Time: _____ Motor Type: _____ Seal Number: _____

Watercraft Registration # _____ Vehicle License # _____ Trailer License #: _____

☐ Used in high risk water(s): (Name/State) _____ Date used: _____
☐ Used in high risk state within last 30 days
☐ **Found:** ___ Standing water ___I or I/O Mandatory Flush ___Mud/Debris ___ Suspected AIS ___ Mussels ___ Vegetation
Comments/Other: _____

☐ **Action Taken:** ___ Drained ___ Cleaned/Removed ___ Decontaminated (Water) ___ Decontaminated (AIS):*use supplemental forms*
___Motor Flushed ___ Quarantined Quarantine Location: _____ Duration: _____
___ Impounded Officer Responsible for Impoundment: _____
☐ **Post Decontamination Inspection Completed**

Call Law Enforcement Officer if watercraft owner is not willing to submit watercraft to required decontamination.

INSPECTION AND DECONTAMINATION COMPLETED IN ACCORDANCE WITH STATE PROCEDURES:

Inspected by (inspector # and name): _____ Inspector Signature: _____

Watercraft Owner/Operator Name: _____ Watercraft Owner/Operator Phone: _____

Watercraft Owner/Operator Address: _____

I hereby authorize the state certified authorized AIS inspector to decontaminate my watercraft in accordance with state procedures.

Watercraft Operator Signature: _____

FILE COPY

State of Wyoming

WATERCRAFT DECONTAMINATION FORM

Decontamination # _____ - _____ - _____
Location Code | Date (mmddyy) | Watercraft Registration #

Inspection Location: _____ Date: _____ Time: _____ Motor Type: _____ Seal Number: _____

Watercraft Registration # _____ Vehicle License # _____ Trailer License #: _____

☐ Used in high risk water(s): (Name/State) _____ Date used: _____
☐ Used in high risk state within last 30 days
☐ **Found:** ___ Standing water ___I or I/O Mandatory Flush ___Mud/Debris ___ Suspected AIS ___ Mussels ___ Vegetation
Comments/Other: _____

☐ **Action Taken:** ___ Drained ___ Cleaned/Removed ___ Decontaminated (Water) ___ Decontaminated (AIS):*use supplemental forms*
___Motor Flushed ___ Quarantined Quarantine Location: _____ Duration: _____
___ Impounded Officer Responsible for Impoundment: _____
☐ **Post Decontamination Inspection Completed**

Call Law Enforcement Officer if watercraft owner is not willing to submit watercraft to required decontamination.

INSPECTION AND DECONTAMINATION COMPLETED IN ACCORDANCE WITH STATE PROCEDURES:

Inspected by (inspector # and name): _____ Inspector Signature: _____

Watercraft Owner/Operator Name: _____ Watercraft Owner/Operator Phone: _____

Watercraft Owner/Operator Address: _____

I hereby authorize the state certified authorized AIS inspector to decontaminate my watercraft in accordance with state procedures.

Watercraft Operator Signature: _____

OWNER/OPERATOR COPY

What is the Exit Inspection protocol for watercraft leaving waters?

The **Exit** Inspection will ensure one more educational contact has been made with the boater before they leave the boat ramp. It requires a rapid visual and tactile check for AIS, and it verifies that the boater has followed the proper procedures to completely **drain** all compartments and **clean** off the watercraft prior to leaving. Remind the boater of the negative impacts of zebra and quagga mussels and other AIS. Repeat the primary educational message **Drain-Clean-Dry** and explain why boaters need to do it each time they use their watercraft.

The *Exit Inspection Checklist* (below) is not a required form to fill out, but will assist you in performing the inspection quickly and efficiently.

EXIT INSPECTION CHECKLIST

These are the instructions-this is not a form to fill out.

The purpose of this checklist is to:
1—Ensure contact has been made with boater before leaving the boat ramp.
2—Verify the boater has **drained** and **cleaned** the watercraft prior to leaving.

1. Educate

- ☐ Explain that zebra and quagga mussels have been found in neighboring states.
- ☐ Adult mussels and weeds can be transported on watercraft hull or motor and larvae can be transported in water. Explain that we could have mussels in Wyoming waters before sampling efforts detect them.
- ☐ Remind that Drain, Clean, and Dry is the most effective way to stop the spread of mussels.

2. Ensure Watercraft is Drained

- ☐ Ask watercraft owner to pull bilge plug to show it is drained and encourage the boater to leave the plug out until the next time they launch.
- ☐ Ask to see the live-well and ensure it is drained.
- ☐ Ask to see ballast tanks or any other compartment with water and ensure they are drained.
- ☐ Ask operator to lower motor to ensure it is drained.

3. Ensure Watercraft Hull is Clean

- ☐ Look quickly for and remove all plants or mud.
- ☐ Ask to see the anchor and ensure it is not dirty and does not have plants, mud, or mussels on it.

4. Encourage Additional Cleaning and Drying

- ☐ Encourage them to clean watercraft with hot water and dry out equipment before next use.
- ☐ Apply a seal to the watercraft if the watercraft operator would like one and time permits. Complete the seal receipt and give one copy to operator and retain copy for records. Record the seal number on the Activity Log.
- ☐ Thank them for protecting our boating and our lakes! Tell them that this will help them get through the next inspection much faster.

5. Document Inspection

- ☐ Document inspection on *Activity Log*. Complete a separate entry line on Activity Log for every exit inspection conducted.

What is a Watercraft Seal?

Wyoming will use a brown watercraft seal that will connect the watercraft to the trailer to document inspections and decontaminations.

Watercraft will get a brown seal if…

• The watercraft has undergone and passed an exit, standard, or high risk inspection by a state authorized AIS inspector.

• The watercraft has undergone decontamination by a state authorized AIS inspector or has undergone a quarantine time.

***Watercraft seals will be placed on ALL watercraft after an inspection at an off-water facility (i.e. border check station, regional office).**

Important: *It is critical to attach the seal in a way that it* ***will be broken*** *if the watercraft is separated from the trailer. Typically the wire seal goes between the eyebolt of the watercraft and part of the winch on the trailer. Be advised that some winches can be unrolled completely and separated from the seal without breaking it. You may need to find another place to attach the seal to the trailer.*

What makes a watercraft seal valid?

• A watercraft seal will only be valid if the boater has a receipt with the seal with a matching serial number and the seal has not been tampered with.

• To ensure that the serial number on the seal receipt cannot be falsified, inspectors must record the application of the seal and the seal's serial number and the watercraft registration number on the daily activity log.

Important: *On the seal receipt, be sure to check off the boxes for both the procedures that were performed, AND those that were* ***not*** *performed. This ensures that boaters do not check boxes for any procedures and falsify their copy.*

What if I am unable to attach a seal on the watercraft and trailer?

There may be some cases where you are unable to place a watercraft seal connecting the watercraft to the trailer (i.e. kayak or canoe in the bed of a truck). In these situations you will only provide the seal receipt to the boat operator or owner. You will need to check off the box on the seal receipt that says "Receipt Only" and do not complete the section of the receipt for "Seal Serial #". By checking this box you are alerting the next inspector that a seal was not affixed to the watercraft. If the seal cannot be properly affixed to a watercraft, the receipt will only be valid for 7 days beginning with the date of issue. For example, if a seal was issued on May 10th it would only be valid through May 16th. **If a watercraft leaves Wyoming and returns within this 7 day period or if the receipt is more than 7 days old, a new watercraft inspection is required.**

How do I treat an incoming watercraft with a seal?

A watercraft entering a check station with a watercraft seal is **not** allowed to proceed immediately. You must verify that the watercraft seal and receipt are valid and that there is no evidence of tampering on the seal. On the activity log, check the valid seal box, and record the seal serial number, watercraft registration (or trailer/vehicle plate if no registration #), last water and next water, and check the standard inspection box.

Watercraft with a seal may proceed if:

- Watercraft has a valid seal receipt **and**
- Watercraft seal is intact and has not been tampered with OR if receipt only, the seal receipt had been issued within 7 days **and**
- Watercraft has **not** been used in a high risk water without having been decontaminated.

If not, perform **a** standard inspection.

Watercraft seals from high risk waters will not be honored unless receipt indicates decontamination was conducted.

Do I remove the watercraft seal?

If the watercraft will launch immediately after the inspection (check station at water/boat ramp) cut off the seal and allow the watercraft to launch. However, if the watercraft will be transported through state before launching (border check station, regional office) **do not** remove the seal. **Advise the watercraft owner to remove the seal immediately prior to launching on the destination water and to keep the seal and valid seal receipt while on the water.**

What other colored seals might I see on watercraft?

Several western states have implemented a watercraft seal program as part of their AIS watercraft inspection programs. Below is a guide to these seals. Unless specified, the State of Wyoming will honor seals listed below and allow the watercraft to proceed without further inspection if the seal is intact and the seal receipt is valid. If a watercraft has a seal not included in the table below, DO NOT accept and proceed with inspection.

Seal Color	State	Entity	Description
Blue	Utah	State of Utah	Boat Passed a Successful Full Decontamination. Receipt Given. *NOTE: Seals are not given for inspection alone.
Green	Colorado	All Agencies Statewide	Boat Passed a Successful Inspection and/or Decontamination. Receipt Given.
Red	Oregon	State of Oregon	Boat Passed a Successful Full Decontamination. Boat is required to submit to quarantine after decontamination and red tagged boats have not yet completed the quarantine. Receipt Given.
Yellow	Oregon	State of Oregon	Boat Passed a Successful Inspection. Receipt Given.
Brown	Wyoming	State of Wyoming	Boat Passed a Successful Inspection and/or Decontamination. Receipt Given.
Orange	Idaho	State of Idaho	Boat Passed a Successful Inspection and/or Decontamination. ID will only issue a receipt if the boater indicates that they are going out of state.
White	Montana	State of Montana	Boat Passed a Successful Inspection and/or Decontamination. **Accept only if Receipt Given.**

State of Wyoming: INSPECTION AND DECONTAMINATION SEAL RECEIPT ☐ Had Valid Seal ☐ Receipt Only

Location: _____ Date: _____ Time:_____ Inspector's ID #_____
Watercraft Reg #:_____ Trailer Plate #:_____ Seal Serial #:_____
Last Water/State: _____Date Last Used: _____Next Water/State: _____ Motor Type:___

SEAL AND DECONTAMINATION TYPE (check those performed **and** not performed)

Exit Inspection:	☐ Performed	or	☐ Not Performed
Standard Inspection:	☐ Performed	or	☐ Not Performed
High Risk Inspection:	☐ Performed	or	☐ Not Performed
Standing Water / Motor Flush Decontamination:	☐ Performed	or	☐ Not Performed
Plant Decontamination:	☐ Performed	or	☐ Not Performed
Full Decontamination (exterior/interior):	☐ Performed	or	☐ Not Performed

High Risk Inspection:
☐ Used in high risk water or state
☐ Standing water
☐ Other: _____
Found: _____
_____
_____

AN AIS DECAL IS REQUIRED* BEFORE LAUNCHING ON WYOMING WATERS

Watercraft has decal, or receipt for a purchased decal at time of inspection?
☐ YES ☐ NO ☐ N/A
*(*Not required if watercraft is a non-motorized inflatable under 10 feet, or is not launching in Wyoming)*

Important information:
- **Even with a valid seal and receipt, you must stop at ALL open watercraft check stations on your route of travel.**
- When entering a watercraft check station, show this receipt to the station attendant. Seal is only **valid** if the seal is intact and has not been tampered with, **and** has a matching seal receipt to go with it.
- If "Receipt Only" is checked and no seal issued, the receipt is valid if issued within 7 days, and the watercraft has not been out of Wyoming.
- When you reach your intended water, remove the seal by cutting/breaking the aluminum wire. **Keep the seal and the receipt with you while you are on the water**, this is your proof of inspection.

FILE COPY

Inspection Location Copy

State of Wyoming: INSPECTION AND DECONTAMINATION SEAL RECEIPT ☐ Had Valid Seal ☐ Receipt Only

Location: _____ Date: _____ Time:_____ Inspector's ID #_____
Watercraft Reg #:_____ Trailer Plate #:_____ Seal Serial #:_____
Last Water/State: _____Date Last Used: _____Next Water/State: _____ Motor Type:___

SEAL AND DECONTAMINATION TYPE (check those performed **and** not performed)

Exit Inspection:	☐ Performed	or	☐ Not Performed
Standard Inspection:	☐ Performed	or	☐ Not Performed
High Risk Inspection:	☐ Performed	or	☐ Not Performed
Standing Water / Motor Flush Decontamination:	☐ Performed	or	☐ Not Performed
Plant Decontamination:	☐ Performed	or	☐ Not Performed
Full Decontamination (exterior/interior):	☐ Performed	or	☐ Not Performed

High Risk Inspection:
☐ Used in high risk water or state
☐ Standing water
☐ Other: _____
Found: _____
_____
_____

AN AIS DECAL IS REQUIRED* BEFORE LAUNCHING ON WYOMING WATERS

Watercraft has decal, or receipt for a purchased decal at time of inspection?
☐ YES ☐ NO ☐ N/A
*(*Not required if watercraft is a non-motorized inflatable under 10 feet, or is not launching in Wyoming)*

Important information:
- **Even with a valid seal and receipt, you must stop at ALL open watercraft check stations on your route of travel.**
- When entering a watercraft check station, show this receipt to the station attendant. Seal is only **valid** if the seal is intact and has not been tampered with, **and** has a matching seal receipt to go with it.
- If "Receipt Only" is checked and no seal issued, the receipt is valid if issued within 7 days, and the watercraft has not been out of Wyoming.
- When you reach your intended water, remove the seal by cutting/breaking the aluminum wire. **Keep the seal and the receipt with you while you are on the water**, this is your proof of inspection.

Thank You! Please save this receipt, it is required for verification. Remember to ✓Drain ✓Clean ✓Dry!

Owner/Operator Copy

How do I deal with Live Baitfish?

If the watercraft has a bait container or a live-well with standing water, inspectors will need to determine the origin of the water and the bait (see flowchart on page 25).

If the live-well has water but no live baitfish use *Standing Water Protocol* (page 17) to determine if the water presents a high risk and should be decontaminated. If the water presents a low risk, drain completely and continue with the inspection.

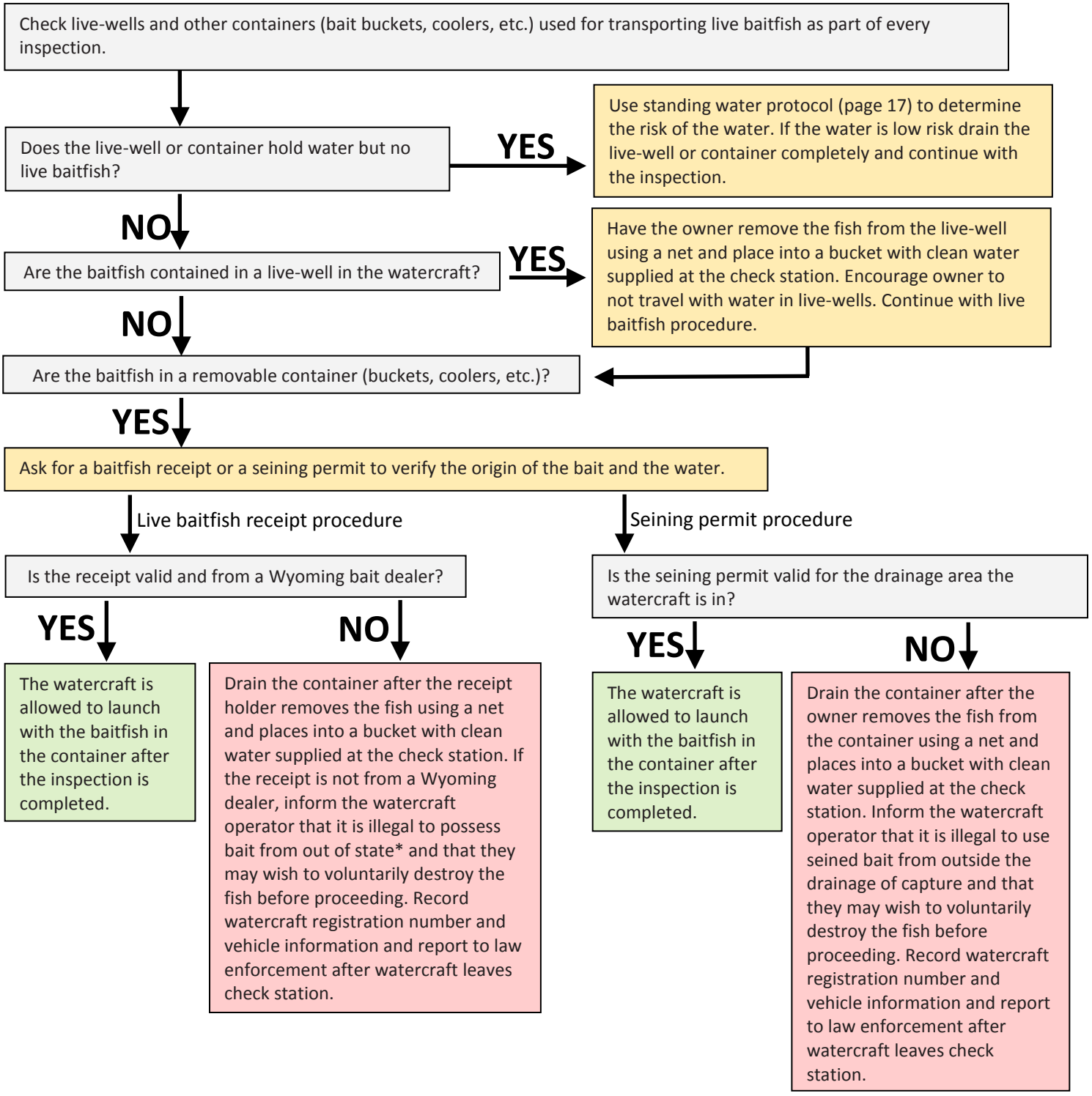
If a live-well has live baitfish, remove the baitfish and place in a bait bucket with clean, fresh water. Drain the live-well thoroughly. Ask the owner for the live baitfish receipt or seining permit. If the live baitfish receipt or seining permit are valid you may allow the owner to proceed with the baitfish in the bucket provided. If the owner does not have a receipt/permit or if the receipt/permit shows the live baitfish were purchased out-of-state or seined in a different drainage, have the owner remove the baitfish and ensure all of the water is drained from the holding container. Ask the owner to voluntarily destroy the illegal baitfish.

It is illegal to possess live baitfish from outside Wyoming. Except those approved by the Department and imported by a licensed Wyoming baitfish dealer or Commercial Hatchery.

Aquatic invasive species inspectors that are not Peace Officers may NOT require an angler to produce a receipt/permit if they decline. Inspectors should explain the regulation governing AIS and request voluntary compliance. Inspectors should refrain from giving legal interpretations resulting from a boater's lack of compliance. If a boater is not compliant or if the owner possesses illegal baitfish, law enforcement should be notified. In addition, there are drainages in the state that do not allow live baitfish regardless of origin; inspectors should verify whether use of live baitfish is allowed at their water(s) or region.

Many AIS are introduced into new areas as a result of baitfish introductions. As an inspector you should familiarize yourself with the key characteristics of known AIS. Some boaters may possess a valid baitfish receipt or seining permit and still have possession of invasive fish such as brook stickleback. **It is illegal to possess or transport brook stickleback in the state of Wyoming.** A key characteristic of brook stickleback is free standing spines (usually 5) on the back (see photo on page 35). Take the time to look at baitfish and determine if any of the fish may be invasive.

Live Baitfish Protocol



*If the inspection is at Big Horn Lake, the boaters have live baitfish and they intend to boat only in Montana, have the owners remove the fish from the container using a net and place into a bucket with clean water supplied at the check station and allow them to launch after the inspection. If the boaters have live baitfish from Montana and they intend to boat in Wyoming, have the owners remove the fish from the container using a net and place into a bucket with clean water supplied at the check station. Inform the watercraft operator that it is illegal to possess baitfish from out of state on Wyoming waters. Record watercraft registration number and vehicle information and report to law enforcement after watercraft leaves check station.

What is the protocol if mussels or other possible AIS are found on watercraft?

If you find zebra or quagga mussels or other possible AIS, it is required that you **Report, Document, Collect,** and **Decontaminate**. If necessary, inform the operator that it is a violation of AIS regulation to launch or transport the watercraft until it has been decontaminated.

Report

Report your suspected AIS discovery:

- Telephone: 1-877-WGFD-AIS or 1-307-745-5180 Ext. 256

Your initial report can be brief but should include the following information:

- Date/Time
- Location (Current Location of Watercraft and Waters Recently Visited)
- Suspected species of AIS
- Name of Reporter (Inspector)

Document

You must thoroughly document your findings. You will need to complete the *Watercraft Decontamination Form* AND the *Supplemental Watercraft Decontamination Forms (both pages).*
You will need to take digital pictures of the specimen and the entire watercraft before, during (if possible), and after decontamination.

- Take digital pictures of the specimen. Take a close-up photo, especially if you can show byssal threads (if specimen is a zebra or quagga mussel). Place a common object such as a pencil or penny next to the specimen and photograph the combination to demonstrate the relative size of the specimen.
- Photograph an overview of the entire watercraft, the registration number, and the area(s) of the watercraft where the specimen was found.

Collect

Place Specimens in Sample Vials—Fill the sample vial with 70% ethanol. This can be purchased directly or can be made up from 100% grain alcohol diluted with *deionized* or *distilled* water. Do not use tap water, or "de-chlorinated" tap water because it can completely destroy sample DNA. Place 5-10 specimens in the specimen vial and tightly seal the vial. Write the date/location/contact on the vial with a permanent marker. Place the vial in a Ziploc bag.

FedEx Samples within 48 hours to AIS Program Office for Identification—Place the Ziploc bag(s) containing the sample(s) into a FedEx mailer and ship the package to:
Wyoming Game and Fish Department, AIS Program Coordinator
528 S. Adams, Laramie, WY 82070
Email ReportAIS@wyo.gov to notify the office that the package is on its way.

Decontaminate

Most sites will have or can provide a hot water high pressure decontamination system (>140°F, minimum 2500 psi) to decontaminate the watercraft, motor, trailer, personal gear, and other equipment. The watercraft decontamination forms (pages 18, 31-32) must be completed for all watercraft sent for decontamination. Fill out the forms completely and photo document the decontamination of the watercraft before, during, and after decontamination.

What is the Standard Watercraft Decontamination Protocol?

To ensure that zebra and quagga mussels and other AIS are removed and destroyed, standard watercraft decontamination protocols include:

1—Ensure personal and public safety by wearing personal protective equipment and maintaining contact and communication with the watercraft operator and others involved in the decontamination.

2—The removal of all visible mud, plants, and organisms from the exterior and interior of the watercraft.

3—Thoroughly spray the exterior of the watercraft with hot water (140°F) and high pressure (2500psi), flush motor with hot water (140°F), and flush the interior of the watercraft and compartments with hot water (120°F) and low pressure.

4—After decontamination, the watercraft must be inspected again to ensure a successful decontamination.

5—Inspectors must report all decontaminations by emailing ReportAIS@wyo.gov and mailing a copy of the *High Risk Inspection and Watercraft Decontamination Form* along with the *Supplemental Watercraft Decontamination Forms* to:

Attn: Beth Bear, Aquatic Invasive Species Coordinator, Wyoming Game and Fish Department
528 S. Adams, Laramie WY 82070

6—If the watercraft leaves your site immediately following the decontamination, apply a brown wire seal and give the operator a *Seal Receipt* to document the decontamination.

Only state-certified authorized AIS decontaminators should operate the high pressure, high temperature decontamination units to **decontaminate** the watercraft. Public and staff safety should always be your top priority. Be sure to document all procedures used to decontaminate the watercraft.

What types of decontaminations will I do?

a.) Standing Water Decontamination
b.) Motor Flush
c.) Plant Decontamination
d.) Full Decontamination for Confirmed or Suspected AIS

Standing Water Decontamination

It is necessary to perform standing water decontaminations when a watercraft has standing water from a high risk water OR the watercraft has been used in a high risk state in the last 30 days and has any high risk standing water present. Additionally, if a watercraft comes from a high risk water and there are compartments that cannot be verified for presence of standing water, those compartments require decontamination.

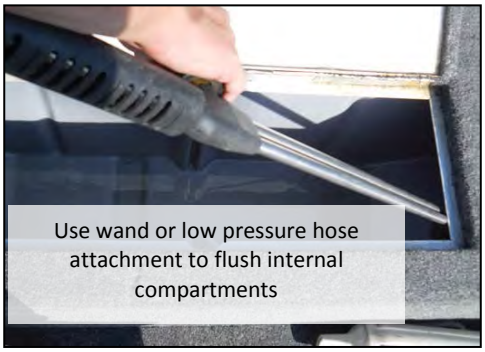
All watercraft with small amounts of standing water need to be drained regardless of where the watercraft was last used. If tools such as hand pumps, sponges and/or towels do not ensure a fully drained watercraft, decontamination of those areas is advised (see *standing water protocol*, page 17). This decontamination requires the completion of the ***Watercraft Decontamination Form*** (page 19. Parts of the watercraft that may hold water include the lower unit on outboard watercraft, inboard and inboard/outboard motors, live-wells, ballast tanks, anchor compartment, bilge area and corresponding intakes.

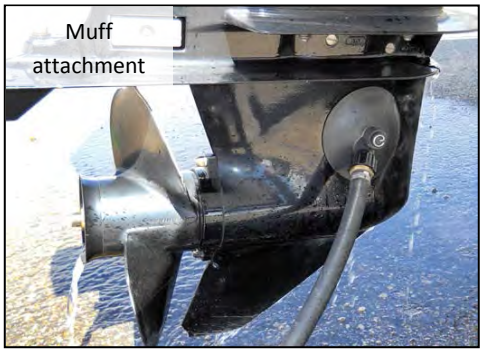
Protocol:

- Internal compartments (live-wells, ballast tanks, bilge) that use water pumps should be drained and then decontaminated with hot water (120°F) and low pressure for a minimum of 2 minutes. Temperatures higher than 120°F have damaged pump assemblies.

Before decontamination, test the temperature of the water using a digital thermometer by spraying water into a bucket and verifying the temperature. Failure to do this can result in boat damage or ineffective decontamination.

- For internal compartments use the spray wand with the high pressure nozzle removed or attach a low pressure attachment. With the plug in, fill compartments with enough hot water to provide adequate coverage on the base and sides. Remove the plug and continue to flush for 2 minutes. To the extent possible drain all decontamination water from the compartments.
- If a bilge pump is present, then it must be flushed with hot water (120°F) and run until the bilge appears to be empty.
- Some ballast tanks are filled using intakes on the bottom of the hull. In that case, you will need to use a fake-a-lake which fits over the intake.





Motor Flush

When to conduct a motor flush is based on the type of motor and the watercraft's last use.

Outboard motor:

- If the last water was a high risk water within the last 30 days, conduct a motor flush.
  - If last water was high risk water but over 30 days ago, flush motor if any water drains from motor. If dry, allow to proceed without flush.
- If the last water was in a high risk state (but not a high risk water) drain thoroughly and allow to proceed without flush.

Inboard/Outboard and Inboard motor:

- If the last water was a high risk water within this calendar year (2015), conduct a motor flush.
  - If last water was high risk water but last year or earlier, flush motor if any water drains from motor. If dry, allow to proceed without flush.
- If the last water was in a high risk state (but not a high risk water) and was used within the last 10 days, conduct a motor flush.
  - If the last water was in a high risk state (but not a high risk water) and was used over 10 days, drain if possible and allow to proceed without flush.

Jet skis:

- Ask the owner to start the motor and rev it a few times to remove any water in the impeller, this is referred to as "burping." This is a manufacturer recommended procedure, and if done for a short period of time (no more than 15 seconds at a time), will not harm the motor when done out of water.

Jet boats:

- Only attempt to flush a jet boat if you feel that the water in the cooling system is high risk.

Motor Flush Protocol:

- Motors and engines will be thoroughly flushed with hot water (140°F) until the discharged water is 140°F, and for no longer than 90 seconds.

> *Do not run the motor or engine if the attachment is not securely fitted over the intake. Motors and Engines should only be operated in neutral.*

- For outboard and inboard/outboard motors there are two types of decontamination muffs. The mercury engine muff which threads through the engine intakes on the lower unit is the most secure fitting and fits the majority of outboard motors. For all others there is a clamp style muff.
- For inboard engines use the fake-a-lake attachment which fits securely over the motor intake located on the underside of the hull.
- For jet boats and jet skis, flush with 120^{o}F water-the motor uses pumps which could be damaged by hotter water. Jet boats and jet skis will typically have a place to connect a garden hose to flush the cooling system. An adapter may be required, if you do not have the correct adapter, ask the boat owner if they have an adapter. Connect the low pressure hose attachment to the cooling system intake (**DO NOT START RUNNING WATER YET**), ask the boat owner to start the corresponding engine, once the engine is running immediately start running the water. Run until the water exiting the engine is 120^{o}F. **Turn off the water flow before shutting off the motor.** As soon as the water is off, have the owner give the engine two quick revs to no more than half throttle (to clear excess water) and then turn off the engine (should take no longer than 15 seconds after the water has been shut off).

Plant Decontamination

During standard, high risk, and exit inspections inspectors should remove all plant material. However, when plant material cannot be completely removed because it is caught between the trailer and the hull or wrapped around the propeller or transducer, it is necessary to perform plant decontaminations. Aquatic weeds such as Eurasian watermilfoil can establish new populations with only a small fragment of the parent plant; therefore it is imperative they are not transported to new locations. Requires the completion of the ***Watercraft Decontamination Form*** (page 19) along with both pages of the ***Supplemental Watercraft Decontamination Forms*** (pages 32 and 33).

Protocol:

- Plant decontaminations are conducted on localized areas (trailer, prop, transducer, pitot tube, etc.) and require using hot water (140°F) and high or low pressure for a minimum of 2 minutes on the areas where plant material is located.
- Sensitive areas such as carpeted bunks, transducer, and gimbal area of the motor require flushing with low pressure.
- If plant material is found on watercraft with ballasts tanks, the tanks should be flushed to eliminate fragments that may have been transported through the intakes. Follow *Standing Water Decontamination* protocol for all internal compartments.

Full Decontamination for Confirmed or Suspected AIS

It is necessary to perform a full decontamination of the watercraft when adult or juvenile mussels are identified on any part of the watercraft or if unidentified AIS (such as bumps on the hull) are detected. **Any watercraft found to contain mussels that are alive or of unknown viability must undergo a full decontamination and quarantine to allow desiccation time to kill any mussels missed during decontamination.**

A full decontamination is time consuming but absolutely necessary in these circumstances. It requires decontamination of all areas of the watercraft that may have come in contact with water including: all interior compartments including gear and equipment, water storage facilities, bilge, motor or engine, the entire exterior of the watercraft and trailer. This requires the completion of the ***Watercraft Decontamination Form*** (page 18) along with both pages of the ***Supplemental Watercraft Decontamination Forms*** (pages 32 and 33). Full decontaminations should move from the inside of the watercraft to the outside.

Protocol:

- Flush all through-hull fittings and discharge ports with hot water (120°F) and low pressure for a minimum of 2 minutes. Refer to *Standing Water Decontamination* protocol for instructions.
- Flush all internal compartments. Follow *Standing Water Decontamination* protocol for all internal compartments and bilge.
- All gear and equipment including but not limited to the anchor, rope, life vests, oars should be washed with hot water (140°F) and low pressure for a minimum of 2 minutes.
- When completing a full decontamination on a boat with ballast tanks, fill the ballast tank full with hot water (120°F) and drain completely. Proceed with *Standing Water Decontamination* protocol for internal compartments.
- Flush the motor or engine. Refer to *Motor Flush Decontamination* protocol for instructions on flushing the motor or engine.
- The entire exterior of the watercraft (and trailer) must be thoroughly washed with hot water (140°F) at high pressure (2500psi) for a minimum of 10 seconds. Use low pressure on sensitive areas such as the gimbal area of the motor, carpeted bunks, and any areas with loose wiring.

- Use the high pressure wand and the 40°(yellow) nozzle to spray the exterior of the watercraft. Work methodically from the front of the boat to the rear. Keep the wand at a distance of no more than 12" from the hull or trailer to maintain adequate temperature. Spray each area for a minimum of 10 seconds.
- Sensitive areas on the exterior of the watercraft such as the gimbal or carpeted bunks on the trailer should be thoroughly flushed (top, bottom and sides) with low pressure and hot water (140°F) for a minimum of 2 minutes.


High pressure wand


Low pressure hose attachment


Wand without high pressure nozzle

What options does the boater have when a watercraft decontamination unit is not available?

Watercraft decontamination stations will be placed at multiple locations throughout the state and at all WGFD Regional Offices. If zebra or quagga mussels are confirmed, inform operator that transporting the watercraft would be in violation of the AIS regulation. The boater can wait while you arrange for a decontamination unit to come to the site or they can be escorted by a qualified peace officer to the nearest decontamination site. If you need information to determine where the closest decontamination site or unit may be, contact the nearest WGFD regional office (Appendix F) or contact the AIS Coordinator at 307-745-5180 Ext. 256.

What if the boater will not allow a High Risk Inspection or Decontamination?

Attempt to get the owners support to inspect the watercraft and either decontaminate on site if you have a watercraft decontamination unit or take the watercraft to the closest decontamination site. If the owner is unwilling to cooperate, you may need the assistance of law enforcement. Avoid engaging with angry or hostile boaters. When in doubt call law enforcement for assistance. **Only qualified peace officers can order decontamination or impound a watercraft when an owner is not cooperative.**

A watercraft may be impounded if any one of the following apply:

1. The person transporting the conveyance refuses to allow an inspection of the conveyance to be conducted by an authorized inspector or peace officer.
2 . A peace officer or an authorized inspector finds that an AIS is present after conducting an inspection.
3. The person transporting the conveyance refuses to allow a decontamination of the conveyance when decontamination is ordered by a peace officer.
4. Upon finding a juvenile or adult mussel and subsequent decontamination, a peace officer determines a risk is still present and submits the watercraft to a quarantine period.

Any watercraft with mussels that are alive or of unknown viability requires decontamination **and** quarantine.
Only watercraft with obviously dead mussels is allowed to proceed **after** decontamination.
If in doubt about the viability of mussels found on a watercraft, quarantine is required.

State of Wyoming

Decontamination # _____ - _____ - _____
Location Code | Date (mmddyy) | Watercraft Registration #

SUPPLEMENTAL WATERCRAFT DECONTAMINATION FORM
AIS DOCUMENTATION (pg.1 of 2)

SPECIMEN COLLECTION AND REPORTING PROCEDURES

1. Photograph: Take 3 digital photo close-ups of AIS before sample is detached from the watercraft

Photos taken (take several if possible):

- ☐ Before decontamination
- ☐ During decontamination
- ☐ After decontamination

Photo #'s/notes

_____
_____
_____
_____

2. Describe the Finding

Write a description of the AIS discovery: who, when, where, and how it was found, if the suspected mussels (or other AIS) were attached to a surface or not, and all locations the watercraft has been in the last six months.

_____
_____
_____
_____
_____
_____
_____
_____
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_____
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_____
_____

Describe any existing damage to the watercraft:

_____
_____
_____
_____
_____
_____
_____
_____

3. Sample: Scrape off suspected AIS or mussels

Complete *Supplemental Form Suspected AIS Collection Form* (pg. 2)

Zebra and Quagga mussels visible – Estimate # of mussels: _____

4. Decontaminate watercraft completely

Use the *Watercraft Decontamination Form*

- Must obtain written permission (signature) from the watercraft owner/operator prior to performing the decontamination.
- Use the form to record findings and actions taken during the decontamination.

5. Email photos and forms to: ReportAIS@wyo.gov

State of Wyoming

Decontamination # _____ - _____ - _____
Location Code | Date (mmddyy) | Watercraft Registration #

SUPPLEMENTAL WATERCRAFT DECONTAMINATION FORM
AIS DOCUMENTATION (pg.2 of 2)

Specimen Collection and Shipping Instructions

1. Collect specimen carefully to obtain entire organism. Use clean, sterile tools to prevent contamination.

2. Place specimen in sample vials.

a. Only fill 50% of vial with ethanol to cover specimen and prevent leakage.

b. Use 70% reagent alcohol or ethanol, or make it up from 100% reagent alcohol diluted with deionized or distilled water. *Trace amounts of chlorine from tap water, or "dechlorinated" tap water can completely destroy sample DNA.*

c. Do **not** use formaldehyde.

4. Write the date and location directly on sample vials with alcohol resistant permanent sharpie marker.

5. Place sample vials in Ziploc bags.

6. Place Ziploc bag and the completed form (complete form with alcohol resistant permanent sharpie marker) below in bubble mailer or padded box.

7. FedEx (ASAP-within 48 hours) to: WGFD, AIS Program Coordinator,
528 S. Adams, Laramie, WY 82070

8. Email ReportAIS@wyo.gov to notify WGFD that the sample is being shipped

9. If you have questions, call 307-745-5180 Ext. 256

10. Remember to disinfect all collection tools by storing them in acidic acid or vinegar solution.

↓ *Remove bottom half of page and include in mailer with vials being shipped to WGFD for analysis.*

SUSPECTED AIS COLLECTION FORM FOR WATERCRAFT INSPECTION STATIONS

Collector's Name: _____

Collection Location: _____

Phone: _____ Email: _____

Date of Collection: _____ Time of Collection: _____

REASON FOR COLLECTION (check all that apply)

- ☐ Visual ID of AIS
- ☐ Suspected AIS
- ☐ Plants
- ☐ Unidentifiable Organic Material

LOCATION OF SUSPECTED AIS PRIOR TO COLLECTION

- ☐ Watercraft Hull
- ☐ Motor
- ☐ Live-well
- ☐ Anchor
- ☐ Bilge
- ☐ Watercraft Interior
- ☐ In Lake/Reservoir
- ☐ Other: _____

Date Mailed: _____

↓ *Do Not Write Below Line:* ***For Lab Use Only***

Date Received at WGFD: _____ Date Identified: _____

Specimen ID: _____ Further Analysis Needed: _____

Lab Personnel:

☐ Coordinator Contacted with Results

What are recommended quarantine times for mussel encrusted watercraft?

The 100th Meridian Initiative has developed a **Quarantine Estimator for Zebra-Mussel Contaminated Boats** that estimates recommended drying times based on average humidity and temperature zones in the 48 contiguous United States. To use this tool, go to their website: http://100thmeridian.org/emersion.asp.

This quarantine calculator should be used to determine the length of quarantine required for any watercraft found to be encrusted with live mussels. The quarantine calculator is based on averages; therefore, quarantine may also be increased or decreased if information suggests seasonal changes for a specific area.

Dry time based on the quarantine calculator should be used as a baseline determination.
Contact the AIS program office to determine if the dry time should be increased or decreased.
Email ReportAIS@wyo.gov or call 307-745-5180 Ext. 256

What other Aquatic Invasive Species is Wyoming concerned about?

The state is concerned about numerous AIS that may pose a significant threat to the aquatic resources or water infrastructure of the state. It is illegal to possess or transport these species in Wyoming. Water users can help prevent the spread of all AIS by making sure their equipment is Drain, Clean, and Dry. Aquatic invasive species of concern in Wyoming include the following:

Common Name	*Scientific Name*
Animals	
Zebra mussel	*Dreissena polymorpha*
Quagga mussel	*Dreissena rostriformis*
Rusty crayfish	*Orconectes rusticus*
Bighead carp	*Hypophthalmichthys nobilis*
Silver carp	*Mylopharyngodon piceus*
Black carp	*Mylopharyngodon piceus*
Snakehead	*Channa or Parachanna genus*
Brook stickleback	*Culaea inconstans*
New Zealand mudsnail	*Potamopyrgus antipodarum*
Asian clam	*Corbicula fluminea*
Plants	
Hydrilla	*Hydrilla verticillata*
Eurasian watermilfoil	*Myriopyllum spicatum*
Curly pondweed	*Potamogeton crispus*

Rusty crayfish

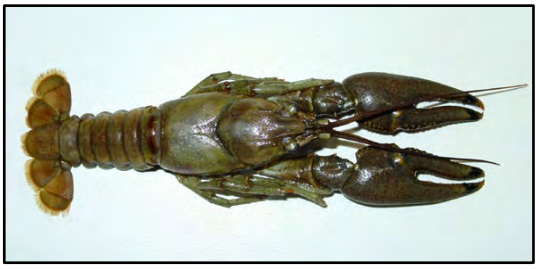


Photo by USGS.

Rusty crayfish are native to the Ohio, Tennessee, and Cumberland drainages in eastern United States. The species has been introduced into 14 other states, most likely by baitfish introductions. Rusty crayfish have the potential to outcompete native crayfish and established populations can destroy plant bed abundance and diversity. Rusty crayfish are currently present in Wyoming in a North Platte River tributary drainage where they had been illegally stocked. Attempts to eradicate the species in 2006 and 2007 were proven unsuccessful when the species was found below the original treatment area in 2012. A further control effort was made in 2013 and its success is undetermined. No other populations have been found in Wyoming.

Asian Carp: Bighead, Silver, Black

Photos by USGS, bighead carp (top left); Department of Fisheries and Allied Aquacultures, Auburn University, silver carp (top right); Rob Cosgriff, Illinois Natural History Survey, black carp (bottom); USFWS.

Bighead carp are native to China and were intentionally introduced in 1972 in Arkansas in an attempt to improve water quality and increase fish production in culture ponds. The species now occurs in at least 24 states and is naturally reproducing. Bighead carp may deplete zooplankton populations and therefore compete with native fishes. Silver carp are native to Southeast Asia and east Russia and were intentionally introduced into the United States in 1973 for phytoplankton control and as food fish. The species now occurs in at least 18 states and is naturally reproducing. The negative impacts of introduced silver carp are the same as those for bighead carp. Black carp are native to Asia and east Russia and were unintentionally introduced in the early 1970s as a stowaway with intentionally introduced grass carp. The species was then intentionally introduced in the early 1980s as a food fish and for biological control of yellow grub. Black carp now occur in at least 5 states. Black carp may reduce populations of native mussels and snails through predation and negatively affect the aquatic ecosystem.

Snakehead

Photo of Northern Snakehead by Wikipedia.

Species from the genus *Channa* or *Parachanna* are referred to as snakeheads. Snakeheads are native to southern and eastern Asia and parts of Africa. They have historically been sold in the U.S. as food in Asian markets and also as pets, and were released via these sources. Snakehead have now been introduced into waters in Arkansas, California, Florida, Delaware, Hawaii, Illinois, Maine, Maryland, Massachusettes, North Carolina, New Jersey, New York, Pennsylvania, Rhode Island and Virginia. They are able to adapt to a variety of habitats and can live for long periods of time (up to four days) out of water. Snakehead feed primarily on other fish, but also consume insects, plants, crustaceans, reptiles and even small birds and mammals. There are no known natural predators of snakehead in the U.S. Once this species becomes established it is very difficult to eradicate.

Brook stickleback

Photo by Konrad P. Schmid, USGS.

The brook stickleback is native to central North America. It has been introduced into 16 states outside of its native range primarily as a result of baitfish introductions. Brook stickleback have been found in several drainages throughout Wyoming including the Beaver, Badwater, Big Horn Lake, Cache La Poudre, Laramie, Medicine Bow, North Platte and Shoshone drainages. Brook stickleback have been shown to compete with and negatively affect other fish species and waterfowl. Studies show that waterfowl may be negatively impacted by brook stickleback due to their affect on zooplankton biomass and abundance. Brook stickleback are known to forage for other fishes eggs which may negatively impact fish populations and result in reduced fishing opportunities.

New Zealand Mudsnail

Photo by Dan Gustafson, Montana State University.

The New Zealand mudsnail is native to mainland New Zealand and adjacent small islands. It was probably introduced into the United States through transoceanic ships or transported with live game fish. The species was first discovered in the Snake River, Idaho in 1987 and has since spread to Oregon, Montana, California, Arizona, Washington, Wyoming, Colorado, and Lake Ontario, Lake Erie, and Lake Superior. The mudsnail is parthenogenic (female clones) and densities have been recorded over 300,000 per square meter. It is transported by fish and birds, natural downstream dispersal, upstream through rheotactic behavior, and by humans on fishing gear. Impacts of introduction include outcompeting native species and altering water chemistry. Currently, populations in Wyoming occur in Yellowstone National Park (Madison, Firehole, Gibbon, Gardner rivers, Nez Perce Creek), Grand Teton National Park (Polecat Creek and the Snake River), Lake Cameahwait (Bass Lake), and in the Bighorn and Shoshone rivers.

Asian clam

Photo by Noel Burkhead, USGS

The Asian clam is native to Asia, Africa, the Mediterranean, and Australia and is believed to have been introduced intentionally as food or incidentally imported with the Pacific oyster. It was initially discovered in 1938 in the Columbia River and now occurs in 38 states. Asian clams are spread through bait bucket introductions, accidental introductions with aquaculture species, illegal introductions for food, and through water currents. Much like zebra and quagga mussels, the Asian clam can clog pipes at power generation and water supply facilities, causing millions of dollars in damage. Asian clam have been confirmed in the Laramie River, and in the North Platte River below Guernsey Reservoir in Wyoming.

Hydrilla

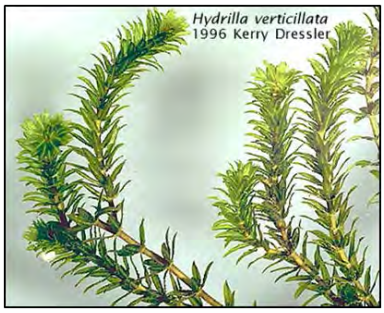


Photo by Kerry Dressler

Hydrilla is native to Asia and was introduced into the United States in the early 1950's for use in aquariums. The species spread into open water through discarded fragments or by planting in canals. Since its initial introduction, hydrilla has spread to 27 states, most likely transported on trailered watercraft. Hydrilla displaces native vegetation, alters physical and chemical properties in lakes, reduces fish foraging efficiency, obstructs boating, fishing, and swimming, and impedes water delivery.

Eurasian watermilfoil

Photo by USGS

Eurasian watermilfoil is native to Europe, Asia, and northern Africa and may have been intentionally introduced into the United States. It was first documented in Washington D.C. in 1942, and now occurs in 45 states and Canada. The species is spread on trailered watercraft and fragments can spread naturally downstream; one stem or leaf fragment can start a new colony. Eurasian watermilfoil is an aggressive plant, displacing native plants leading to reduced diversity. Dense beds form canopies and reduce light penetration, invertebrate abundance, fish forage space, and fish predation efficiency. In addition, it degrades water quality and reduces oxygen levels. Dense beds can also hamper recreation by restricting swimming, fishing, and boating.

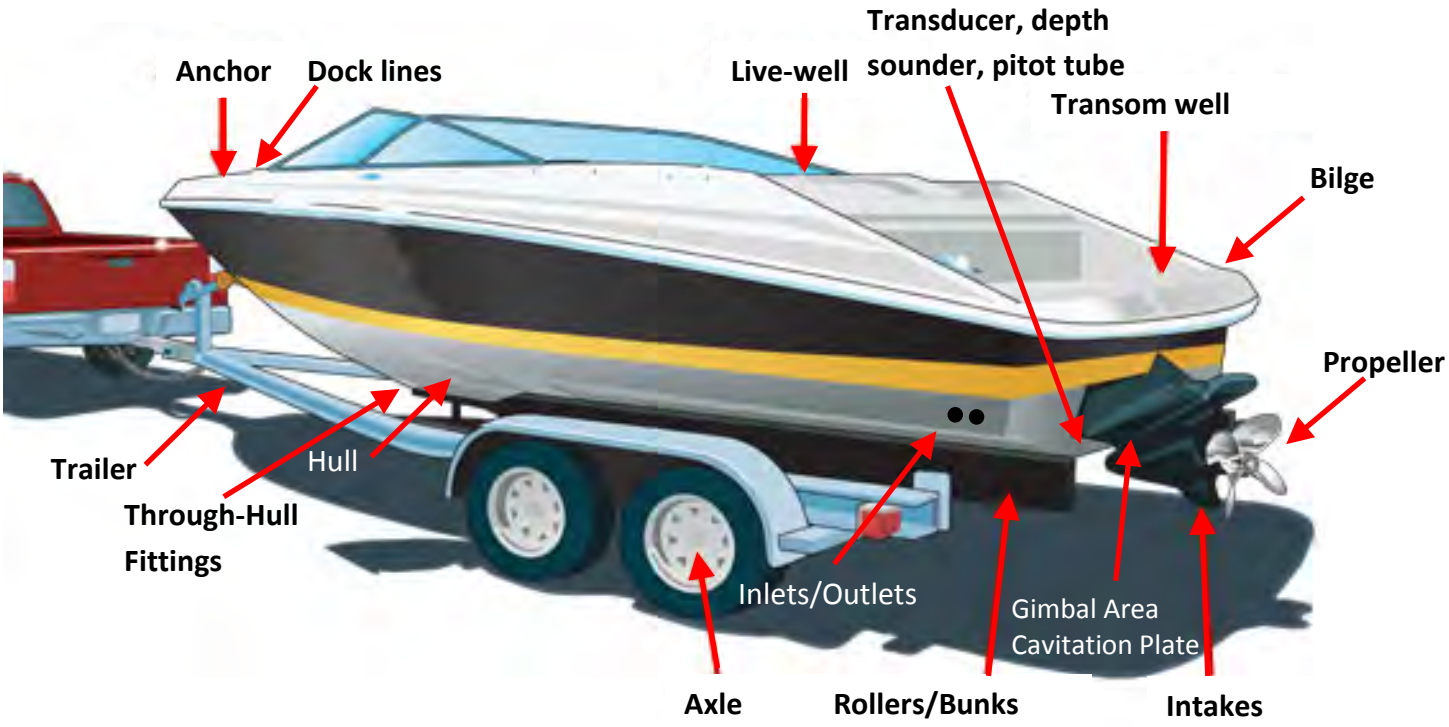
Curly pondweed

Photo by Vic Ramey, University of Florida

Curly pondweed is native to Eurasia, Africa and Australia and was introduced into the United States in the mid 1800's. It is now found in almost every state in the continental U.S. aside from Maine and South Carolina. Curly pondweed reproduces by seed which can be easily transferred in mud or water. It has been introduced into new areas by accidental introductions and as an ornamental plant. Curly pondweed competes with native plants reducing plant diversity and forms dense mats that impact water-based recreation. Curly pondweed has limited distribution in Wyoming. It was first found in Lake DeSmet in 2011. In 2012, it was discovered in the North Platte River between Seminoe Reservoir and Pathfinder Reservoir (an area referred to as the "Miracle Mile") and in New Fork Lake. In 2013 it was discovered in Boysen and Keyhole reservoirs and in the Shoshone River in 2014.

Appendix A: Special Considerations when conducting inspections on various watercraft.

Diagram of a **Standard Watercraft** detailing areas to check during watercraft inspection.
Photo modified from Wisconsin DNR.



Special Considerations for inspecting a Standard Watercraft:

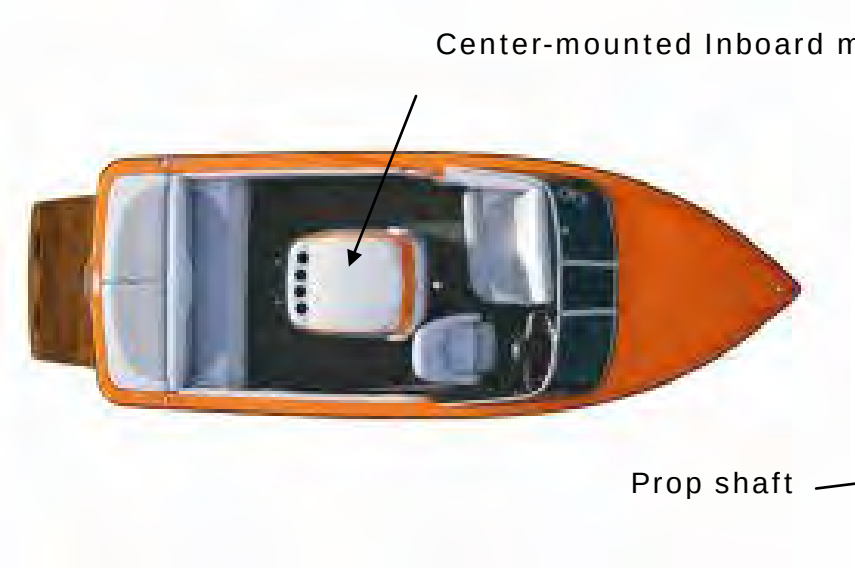
Standard Watercraft may be an Inboard/Outboard ("I/O"; as shown in the photo above) or an Outboard Watercraft.

1. Live-well with a recirculation pump. In order to properly decontaminate the live-well, hot water of [1]120°F or less must be run through the live-well and recirculation pump.

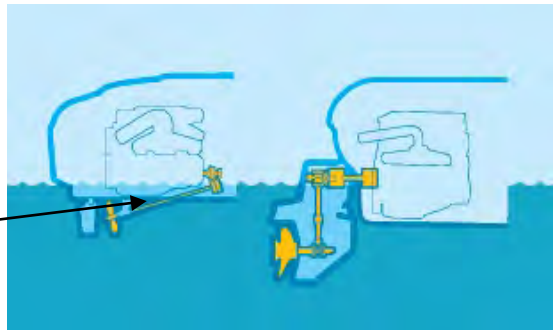
Ballast tanks hold large amounts of water which assists with increasing the wake of a boat and are most common on "wakeboard" boats. Ballast tanks may be permanently installed in the interior of the watercraft or they may exist as external sacks of water. In both styles, water will need to be drained. Ballast tanks which are permanently installed in the interior of the watercraft are filled via intakes on the bottom of the boat. Water is pumped from the lake into the ballast tank. Ballast tanks can hold as much as 500 gallons of water and presents a serious risk if the tank was last filled at an infested body of water. To decontaminate internal ballast tanks, hot water of no greater than [1]120°F must be flushed through the intake and into the ballast tank and drained. Additionally, it is difficult to drain internal ballast tanks completely, decontaminate if ballasts are unable to be completely drained. External water sacks should be drained and can easily be decontaminated by filling the tank with hot water and draining. It is also good to leave these types of sacks out in the sun during transport or storage, as sun can heat any residual water inside the sack and eliminate any risks of AIS (veliger) survival.

[1] 120°F is the highest temperature that should be used during decontamination on any compartment that has a pump assembly. Certain pumps, including SHURflo pumps, will be damaged if temperatures higher than 120°F are used. If there is a pump assembly, proceed with caution and do not use temperatures higher than 120°F.

Diagram of an **Inboard Watercraft** detailing areas to check during watercraft inspection.
Photo modified from Waterskis.com



Inboard vs Inboard Outboard

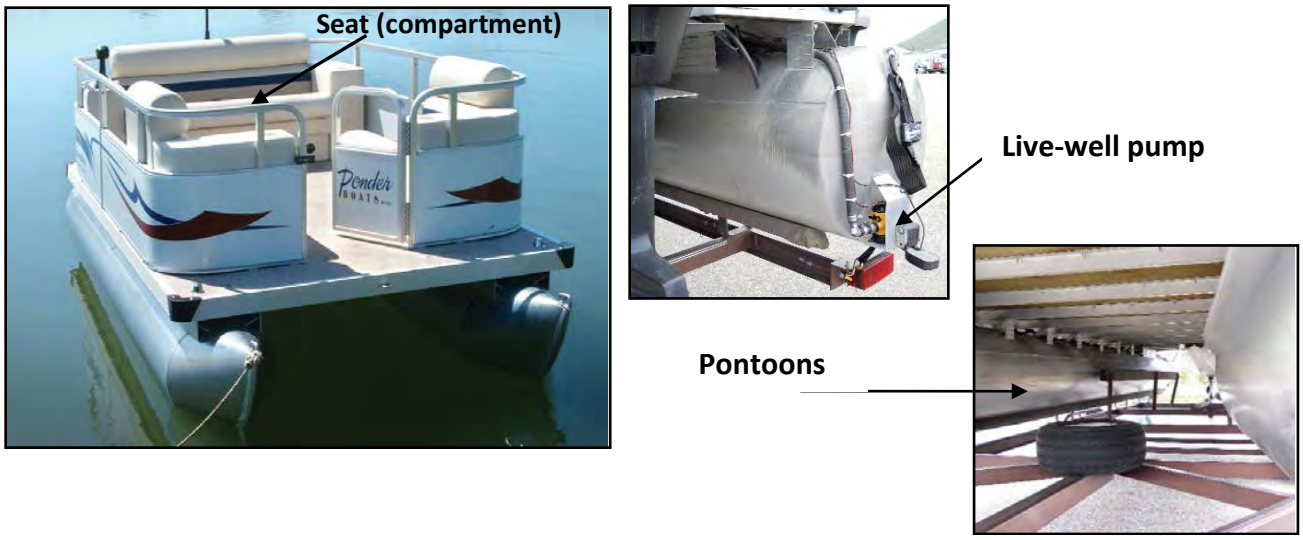


Special Considerations for inspecting an Inboard Watercraft:

1. Inboard "V-Drive" watercraft (as shown in the image above) have a rear-mounted or center-mounted inboard motor and standard prop shafts. Additionally, inboard watercraft retrieve water for cooling via intakes on the bottom of the watercraft. In order to inspect the engine compartment, you will need to climb into the boat and access the engine compartment from there.
2. On a center-mounted inboard motor there are two bilge plugs. One bilge plug empties the water from the engine compartment in the center of the boat and must be removed from inside the engine compartment; the second bilge plug drains water from the rear of the watercraft (similar to bilge plugs on standard watercrafts). Both plugs will need to be removed to properly drain an inboard watercraft.
3. Inboard watercraft pulls water into their cooling system via intakes on the bottom of the watercraft. To decontaminate inboard watercraft, hot water must be flushed through the intake and into the motor.

These two photos are of a Malibu watercraft with inboard motor and ballasts. Notice the multiple intakes on the bottom of the hull. *Photos by CDOW.*

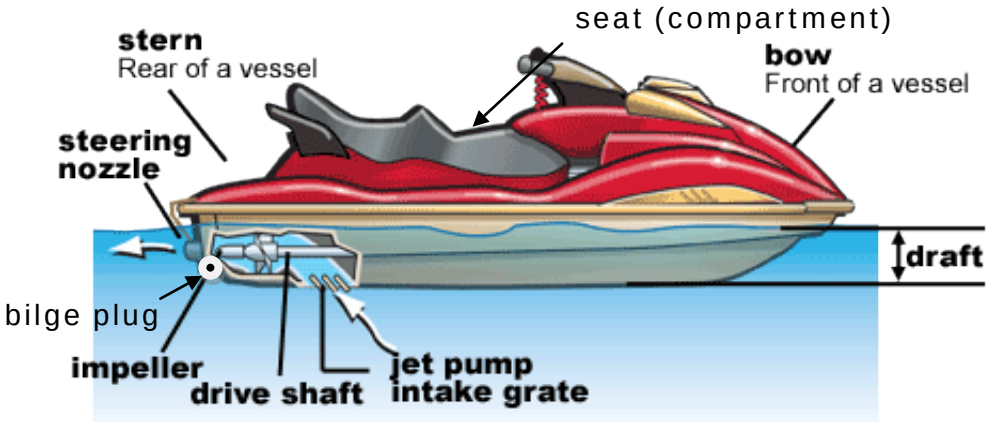
Diagram of a **Pontoon** detailing areas to check during watercraft inspection.
Photos by CDOW.



Special Considerations for inspecting a Pontoon:

1. Pontoons can be very simple or complex.
2. Check pontoons for water by knocking on them, feeling for temperature change or by listening for water movement within the pontoons.
3. Check the rear of each pontoon to determine if a live well pump exists. Check in the interior of the pontoon for internal compartments.
4. Pontoons typically sit for long periods of time on the water and contain multiple areas for mussel attachment on the underside of the watercraft. Be sure to check thoroughly!
5. Pontoons have an outboard motor which is usually lowered even during transport.

Diagram of **Jet Ski (PWC)** detailing areas to check during watercraft inspection.
Photo modified from Boat-Ed.com Used by permission. Copyright (c) 2011 Boat-Ed

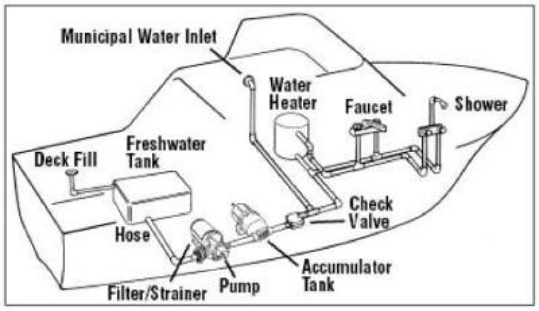


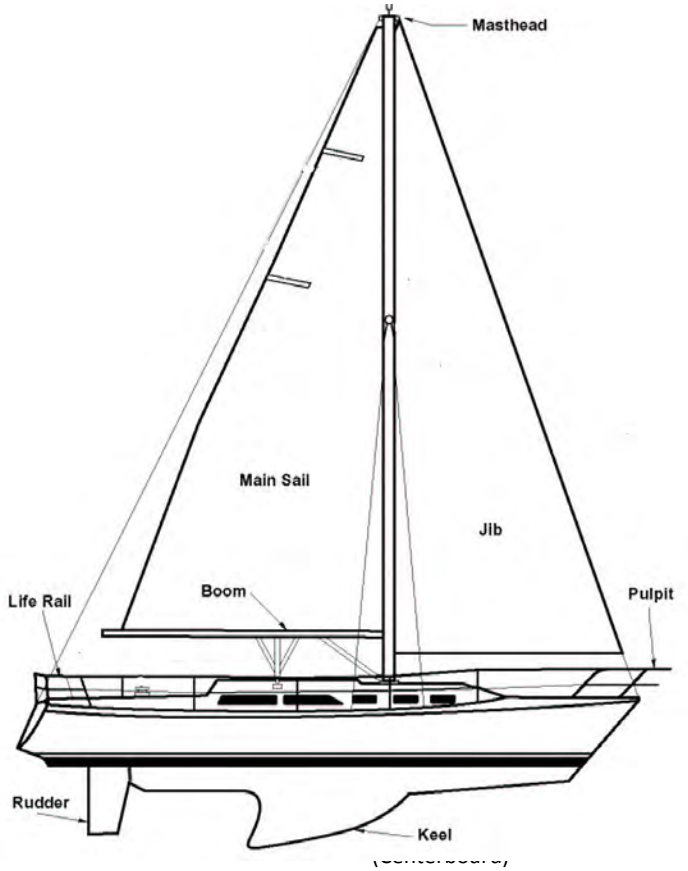
Special Considerations for inspecting a Jet Ski (PWC):

1. Lift seat and inspect interior compartment for standing water.
2. Check the bow of the watercraft as there may be a compartment that may hold standing water.
3. Check foot recesses for water and drain using sponge or hand pump.
4. The motor of the jet ski pulls water into the engine via a large intake on the bottom of the watercraft (see image above). Have the operator start the jet ski and run for no more than 30 seconds to blow out any residual water from inside the motor.

Diagram of **Sailboat/Houseboat**

Photo modified from American Boating Education, LLC

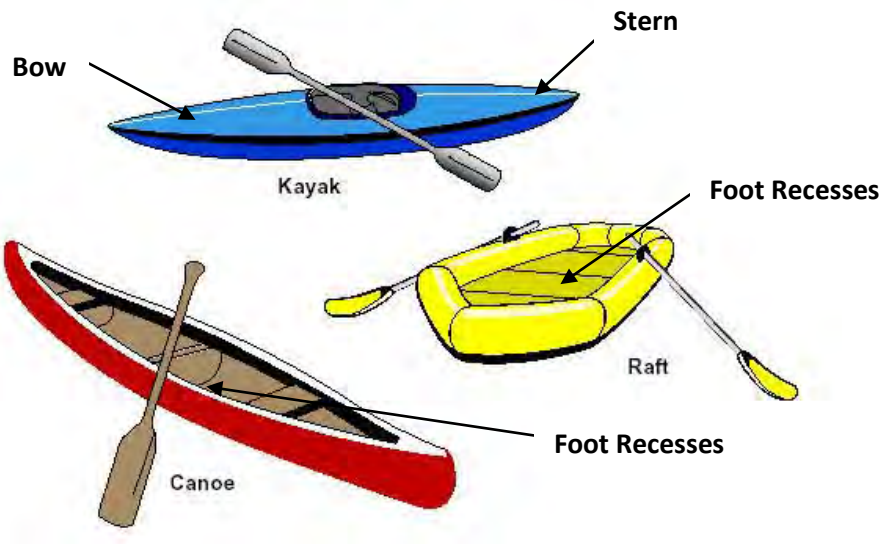




<u>Special Considerations when inspecting a Sailboat or Houseboat:</u>

1. Exterior inspection of a sailboat or houseboat should focus on the areas of the watercraft that come in contact with lake water. These areas may include the deck and all areas below waterline.
2. Some sailboats have centerboards, or retractable keels. Use a flashlight to inspect the centerboard and the centerboard box (holding compartment for the keel). If AIS are detected the sailboat will need to be quarantined to ensure proper drying of the centerboard and centerboard box.
3. Interior Inspection: Sailboats and Houseboats are complex watercraft because they have multiple interior compartments, large bilges and multiple through hull fittings. However, many sailboats and other complex watercraft like houseboats are “closed systems” meaning outside water is not used to support the internal system. Closed systems may include head (toilet), galley (kitchen), etc. If the watercraft has a closed system, inspectors should focus on areas of the watercraft that need to use or store lake water. On a sailboat, these internal compartments or systems may include the raw water system, motor and bilge. In addition the through hull fittings that transport lake water to the system need to be identified and drained. If the sailboat is an open system, inspectors should determine all areas of the watercraft that come in contact with lake water, including all through hull fittings, pumps, compartments, etc. If the watercraft needs to be decontaminated, the entire system will need to be flushed. If the watercraft requires decontamination, sailboats and houseboats with open systems may need to be quarantined to ensure proper drying as many areas may be difficult or impossible to decontaminate.
4. Inspectors should be aware of sailboats with water ballast keels. These types of keels are common on trailered sailboats. Water ballast keels pump water into a holding tank to help stabilize the watercraft. When trailering, the water is drained out and the watercraft is much lighter for transport. Water is typically pumped into the ballast via a transom valve which can be seen on the hull of the watercraft. If there is any suspicion of a water ballast keel, all effort should be made to identify the holding compartment and drain it thoroughly. Photo to the left is the discharge port on a sailboat, during inspection something like this would indicate water ballast.

Diagram of **non-motorized** watercraft detailing areas to check during watercraft inspection.
Photo modified from American Boating Education, LLC



<u>Special Considerations when inspecting a non-motorized watercraft:</u>

1. Recommend traveling with kayak/canoe upside down if possible, which allows for thorough draining.
2. Inflatable watercraft should be dry before deflating. During inspection, if inflatable watercraft is deflated, open it up to inspect that it is dry.
3. In river kayaks where the bow and stern are enclosed by the frame, it is important to check for any standing water.

Appendix B: Map of high risk states (yellow and red) and list of high risk waters.

ARIZONA
Colorado River
Imperial Res. (AZ & CA)
Lake Havasu (AZ & CA)
Lake Mead (AZ & NV)
Lake Mohave (AZ & NV)
Lake Pleasant
Lake Powell (AZ & UT)
Martinez Lake
Mittry Lake
Topock Marsh

CALIFORNIA
Anaheim Lake
Black Gold golf course pond (Yorba Linda)
Coachella Canal
Colorado River
Copper Basin Reservoir
Dixon Lake
El Capitan Reservoir
Imperial Reservoir (AZ & CA)
Irvine Lake
Kraemer Basin Reservoir
Lake Cahuilla
Lake Forest 1
Lake Forest Keys (Lake Forest 2)
Lake Havasu (AZ & CA)
Lake Jennings
Lake Matthews

CALIFORNIA (cont.)
Lake Miramar
Lower Otay Lake
Lake Piru
Lake Poway
Lake Ramona
Lake Skinner
Murray Reservoir
Olivenhain Reservoir
Piru Creek
Rattlesnake Reservoir
Ridgemark golf course (Hollister)
San Justo Reservoir
San Vicente Reservoir
Shadow Lake Estates
Sweetwater Reservoir
Walnut Canyon Reservoir

COLORADO
Pueblo Reservoir

NEBRASKA
Lewis and Clark Lake
Offutt Base Lake
Zorinsky Reservoir

NEVADA
Colorado River
Lake Mead
Lake Mohave (AZ & NV)

NORTH DAKOTA
Red River

SOUTH DAKOTA
Angostura Reservoir
Lewis and Clark Lake

TEXAS
Lake Belton
Lake Bridgeport
Lake Lavon
Lake Ray Roberts
Lake Texoma
Lake Waco
Lewisville Lake

UTAH
Lake Powell (UT & AZ)
Deer Creek Reservoir

CANADA
Lake Winnipeg (Manitoba)

Appendix C: List of location codes for use in completing inspection and decontamination forms.

LOCATION NAME	CODE
Border Locations	
Alpine Port of Entry	ALP
Anvil Draw Road	AVD
Cheyenne I-25 Port of Entry	C25
Cheyenne I-80 Port of Entry	C80
North Cody	CYB
Evanston I-80 Port of Entry	E80
Frannie Port of Entry	FRN
Sheridan I-90 Port of Entry	H90
Kemmerer Port of Entry	KEM
Laramie Port of Entry	LEB
Lusk Port of Entry	LSK
Sundance I-90 Rest Area	S90
Thayne Rest Area	THN
Torrington POE	TOR
Wapiti	WPI
Regional WGFD Office	
Casper Regional Office	CRO
Cheyenne Headquarters	HQO
Cody Regional Office	CYO
Green River Regional Office	GRO
Jackson Regional Office	JNO
Lander Regional Office	LRO
Laramie Regional Office	LEO
Pinedale Regional Office	PEO
Sheridan Regional Office	SNO
Private Locations	
Casper Region Private	CRP
Cody Region Private	CYP
Green River Region Private	GRP
Jackson Region Private	JNP
Lander Region Private	LRP
Laramie Region Private	LEP
Other Private	OTP
Pinedale Region Private	PEP
Sheridan Region Private	SNP

LOCATION NAME	CODE
Water Locations	
Alcova Reservoir	ACR
Beartooth Lake	BTL
Beck Lake	BKL
Big Horn Lake	BHL
Big Sandy Reservoir	BSR
Bighorn River	BHR
Boulder Lake	BDL
Boysen Reservoir	BYR
Buckboard Marina-FGR	BBM
Buffalo Bill Reservoir	BBR
Buffalo Fork River	BFR
Burnt Lake	BNL
Crystal Reservoir	CYR
Deaver Reservoir	DVR
East Newton Lake	ENL
Firehole Boat Ramp-FGR	FRH
Flaming Gorge Reservoir-Other	FGR
Fontenelle Reservoir	FNR
Fremont Lake	FML
Gelatt Lake	GEL
Glendo Reservoir	GLR
Granite Creek	GRC
Granite Reservoir	GRR
Grayrocks Reservoir	GYR
Green River	GRV
Greys River	GYS
Guernsey Reservoir	GUR
Halfmoon Lake	HML
Hams Fork River	HFR
Harrington Reservoir	HRR
Hawk Springs Reservoir	HWS
High Savery Reservoir	HSR
Hoback River	HBR
Hog Park Reservoir	HPR
Island Lake	ISL
Jackson Lake	JKL
Jenny Lake	JNY
Jim Bridger Pond	JBP
Keyhole Reservoir	KHR
Lake DeSmet	LDM

LOCATION NAME	CODE
Water Locations	
Lake Hattie	HAT
Lake Owen	LOW
Laramie River	LRR
Lower Green River Lake	LGR
Lower New Fork Lake	LNF
Lower Shoshone River	LSR
Lower Slide Lake	LSL
Meadowlark Lake	MWL
Meeks Cabin Reservoir	MCR
Middle Piney Lake	MPL
Naughton Plant Pond	NPP
North Cottonwood Creek	NCC
North Crow Reservoir	NCR
North Platte River	NPR
Northfork Shoshone River	NFS
Ocean Lake	OCL
Other	OTR
Palisades Reservoir	PSR
Pathfinder Reservoir	PFR
Pilot Butte Reservoir	PBR
Polecat Creek	PCC
Rob Roy Reservoir	RRR
Saratoga Lake	STL
Seminoe Reservoir	SMR
Snake River Jackson	SKJ
Snake River Palisades	SKP
Soda Lake	SOL
String Lake	STR
Sulphur Creek Reservoir	SCR
Upper New Fork Lake	UNF
Upper Snake River	SKU
Upper Sunshine Reservoir	USR
Viva Naughton Reservoir	VNR
Wardell Reservoir	WDR
West Newton Lake	WNL
Wheatland #1 Reservoir	WLR
Wheatland #3 Reservoir	WR3
Willow Lake	WLL
Woodruff Narrows Reservoir	WNR

Appendix D: Glossary of Terms

Aft – a direction towards the back of the boat.

Anchor – a device used to hold a boat in place.

Ballast tank - a compartment within a boat that holds water; often used in wakeboard boats to increase wake.

Bilge – bottom, inside of the hull.

Bilge plug - a threaded or rubber plug that stops up the drainage hole of a boat near the keel and can be removed when the boat is out of the water to drain out bilge water.

Bilge pump – an electric or manual pump used to remove water from a boat.

Bow – front of the boat.

Cavitation plate - a flat metal fitting mounted horizontally above the propeller of an outboard motor or outdrive, which helps direct the flow of water into the propeller and reduces cavitation.

Centerboard - a heavy retractable fin extending through the bottom of a small sailboat to provide stability; a movable keel.

Centerboard box - a narrow box inside the hull into which the centerboard retracts.

Clean – absent of visible AIS or attached vegetation, dirt, debris or surface deposits including mussel shells or residue on the watercraft, trailer, outdrive, or equipment that could mask the presence of attached mussels.

Drain – to the extent practical, all water drained from any live-well, storage compartment, bilge area, engine compartment, deck, ballast tank, water storage and delivery systems, cooler or other water storage area on the watercraft, trailer, engine, or equipment.

Dry – no visible sign of standing water, or in the case of equipment, wetness on or in the watercraft, trailer, engine, or equipment.

Forward – a direction toward the bow.

Gimbal area – the area of attachment for an outboard motor.

High risk water – a water classified as infested, positive, or suspect for zebra or quagga mussels.

High risk state – any state with at least one high risk water.

Houseboat – a boat that has been designed or modified to be used primarily as a human dwelling. Some houseboats are not motorized, because they are usually *moored*, kept stationary at a fixed point and often tethered to land to provide utilities. However, many are capable of operation under their own power.

Hull – the physical structure of the outside of a boat.

Inboard motor/engine- engine and transmission are inside the boat and a separate drive shaft passes through the hull. A propeller is attached to the end of the drive shaft. An independent rudder is used for steering.

Inboard/Outboard motor/engine – an engine that combines the traits of both an inboard and an outboard engine. May be referred to as an "I/O".

Infested water body - A water body that has an established (recruiting or reproducing) population of mussels.

Intakes - a through-hole fitting mounted below the waterline in a boat to draw water inboard for engine cooling or flushing.

Live-well – a compartment in a boat used to hold water for fish.

Lower unit – the bottom portion of the motor area including the propeller.

Keel – bottom most center of the hull.

Motor well - an opening in a boat's hull into which an outboard motor is lowered so that its propeller can be submerged.

Operator – the person who has command and control of the boat's steering, propulsion, or direction.

Outboard motor/engine – a self-contained propulsion system.

Owner – the person whose name appears on the title or official documentation of a boat.

Pitot tube – a device that picks up water as a boat is moving and converts the water pressure that builds inside to miles per hour on the speedometer gauge.

Port – left side of the boat when facing the bow (front).

Positive water body - water with a confirmed positive testing result of veliger mussels in a two or more consecutive sampling events.

Propeller – a rotating wheel having several angled and twisted blades that draw water from ahead and push it behind. The propeller is the means of propulsion and maneuvering.

Propeller guard – a device that fits over the propeller for protection.

Propeller shaft – a shaft that transmits power from an engine to a propeller.

Rollers/bunks – area of the trailer that the boat sits on.

Rudder – a device that assists in steering.

Starboard – right side of the boat when facing the bow (front).

Stern – back of the boat.

Suspect water body – water with a confirmed positive testing result of veliger mussels in a single sampling event.

Through hull fitting – a water-tight opening in the hull of the boat; generally used to allow water to flow into the engine for cooling.

Transducer/depth sounder – a device used for depth-sounding or for finding fish.

Transom – vertical surface area of the stern.

Trim tabs – panels used to stabilize and balance the boat.

Undetected/Negative water - sampling/testing is ongoing and nothing has been detected, or nothing has been detected within the time frames for de-listing.

V-Drive - rear-mounted inboard motor with a standard prop shaft.

Water ballast keel – most often associated with trailered sailboats. This type of ballast assists with weight distribution during trailering versus operating. A valve is opened and water is fed into a tank into the bottom of the hull. The ballast makes the boat stable and self righting while operating. When the boat is floated back onto its trailer, the valve is opened so the water can drain out providing a much lighter transport. Some designs make it is possible to empty the tank while the boat is in the water if the boat is powering forward at 6mph or more.

Water Sport toy - a sailboard, float tube, kite board or any aid to swimming or fishing that is not designed primarily for navigation.

Watercraft - any contrivance used or designed primarily for navigation on the water that is designed to be propelled by paddles, oars, sails or motors, except for sailboards, float tubes, kite boards or any aid to swimming or fishing that is not designed primarily for navigation. Amphibious vehicles designed for travel over land and water with propeller or jet propulsion systems shall be considered watercraft for the purpose of this regulation.

Wake – the moving waves, track or path that a boat leaves behind it when moving across the water.

Appendix E: List of Wyoming Game and Fish Department AIS contacts.

AIS Coordinator: Beth Bear, 307-745-5180 Ext. 256 or 307-399-6553

AIS Hotline: 1-877-WGFD-AIS (877-943-3247)

WGFD Regional Offices:
Casper Region: 307-473-3400
Cody Region: 307-527-7125 or Greg Mayton: 307-254-3554
Green River Region: 307-875-3223 or Wes Gordon: 307-708-0561
Jackson Region: 307-733-2321
Laramie Region: 307-745-4046 or Travis Kinsell: 307-287-1691
Lander Region: 307-332-2688
Pinedale Region: 307-367-7353
Sheridan Region: 307-672-7418 or Gregor Downey: 307-683-7715

Law Enforcement:
If law enforcement is not present or near, call SALECS to find the nearest warden or other peace officer.
SALECS (1-800-442-2767)

Appendix F: Watercraft Inspection and Decontamination Certification Guidelines
Revised 01/22/2015

Course Outline

The watercraft inspection and decontamination course is designed to train individuals in how to inspect and decontaminate watercraft and equipment that may be transporting aquatic invasive species (AIS). The training also includes information on basic biology, impacts, transport vectors and distribution of AIS. The Wyoming Game and Fish Department (WGFD) has created and maintains a training manual, *State of Wyoming Aquatic Invasive Species Watercraft Inspection and Decontamination Manual*, that is used as the primary educational tool and standard for inspectors. The training and manual are based on the protocols and standards developed by the Pacific State Marine Fisheries Commission and complies with the "Recommended Uniform Minimum Protocols and Standards for Watercraft Interception Programs for Dreissenid Mussels in the Western US".

Certification will be rewarded to participants who successfully pass an exam upon completion of the training course. Individuals who successfully pass the training course are considered an Authorized Inspector by the WGFD*. All certification information will be maintained by the WGFD and stored on the agency's internal database. A list of certified inspection locations will be updated regularly and posted on the agency's website.

Instructors

Course instructors must be approved by the WGFD as a Trainer. Trainers are authorized to provide trainings to certify others as Inspectors.

Certification Requirements

- Minimum of 6 hours classroom and hands-on instruction.
- All participants must pass an exam with a score of 80% or higher. If less than 80% on the first exam, participants can re-take the exam within one month. After one month or after two failed attempts, participants will be required to retake the training course.
- Minimum age for certification is 17 or high school graduate.
- The certification is valid for one year from the date of issue. Each participant will receive a certification ID card stating the date of issue.
- Certifications can be renewed for up to three years by taking an online recertification exam (applies to certifications after 2011). Participants must pass the online recertification exam with a score of 80%. Any individual with a score of less than 80% on the online exam will be required to retake the training course.
- The AIS program may require attendance at training courses (for those individuals with online renewal) if there are significant changes to the standards and protocols of the WGFD.
- Authorized Inspectors will be subject to anonymous quality control checks.
- The AIS program reserves the right to revoke an individual's certification if it is determined the individual is <u>not</u> conducting inspections or decontaminations in accordance with the procedures outlined in the *State of Wyoming Aquatic invasive Species Watercraft Inspection and Decontamination Manual*. In instances where the certification is removed as a result of deliberate misconduct, re-certification will not be allowed for up to five years. In all other cases, individuals will have the opportunity to attend a training course the following year.

Certified Inspection Location
A certified inspection location is a location or address where a Department authorized inspector may be available to conduct an inspection. An inspection is valid only when performed by a certified aquatic invasive species inspector.

Authorized inspector
An authorized inspector means an authorized aquatic invasive species inspector who has a valid certification from an aquatic invasive species training course that meets the requirements established by the Wyoming Game and Fish Department to certify inspectors for aquatic invasive species inspections and decontaminations.

*The WGFD may recognize authorized inspectors certified in states outside Wyoming provided their certification meets requirements established by the WGFD.

Liability
Only employees and volunteers of the Wyoming Game and Fish Department are covered under the State of Wyoming's liability insurance. Private individuals would be covered under their own liability insurance. In order to decrease the likelihood of potential damage to watercraft and liability concerns, authorized inspectors not employed by the WGFD can request that decontamination of watercraft be conducted by WGFD employed inspectors.

Appendix G: Wyoming State Statute on AIS; Title 23, Chapter 4, Section 201-206.

ARTICLE 2 - AQUATIC INVASIVE SPECIES

23-4-201. Definitions.

(a) As used in this article:

(i) "Aquatic invasive species" means exotic or non-native aquatic organisms that have been determined by the commission to pose a significant threat to the aquatic resources, water supplies or water infrastructure of the state;

(ii) "Conveyance" means a motor vehicle, boat, watercraft, raft, vessel, trailer or any associated equipment or containers, including but not limited to live wells, ballast tanks, bilge areas and water hauling equipment that may contain or carry an aquatic invasive species;

(iii) "Decontaminate" means to wash, drain, dry or chemically, thermally or otherwise treat a conveyance in accordance with rules promulgated by the commission in order to remove or destroy an aquatic invasive species;

(iv) "Equipment" means an article, tool, implement or device capable of containing or transporting water or aquatic invasive species;

(v) "Inspect" means to examine a conveyance pursuant to procedures established by the commission in order to determine whether an aquatic invasive species is present, and includes examining, draining or treating water in the conveyance;

(vi) "Water sport toy" means a sailboard, float tube, kite board or any aid to swimming or fishing that is not designed primarily for navigation.

23-4-202. Prohibition on aquatic invasive species; mandatory conveyance checks; reporting.

(a) No person shall:

(i) Launch any conveyance into the waters of this state without first complying with aquatic invasive species prevention requirements established by commission rule;

(ii) Possess, import, export, ship, transport or cause to be possessed, imported, exported, shipped or transported an aquatic invasive species in this state, except as authorized by the commission;

(iii) Introduce an aquatic invasive species into any waters of the state; or

(iv) Refuse to comply with the inspection requirements or any order issued under this article.

(b) A person who knows that an unreported aquatic invasive species is present at a specific location in this state shall immediately report that knowledge and all pertinent information to the commission or a peace officer.

23-4-203. Enforcement.

(a) In order to prevent, control, contain, monitor and whenever possible eradicate aquatic invasive species from the waters of this state, the commission and the department of state parks and cultural resources shall promulgate rules and regulations to administer and enforce the provisions of this article and to establish, operate and maintain aquatic invasive species check stations in order to inspect conveyances.

(b) Every conveyance shall stop at authorized mandatory aquatic invasive species check stations in accordance with rules established by the commission and the department of state parks and cultural resources. Upon probable cause that an aquatic invasive species may be present, a peace officer may:

(i) Require the owner of a conveyance to decontaminate the conveyance; or

(ii) Decontaminate or impound and quarantine the conveyance as provided in this section.

(c) The commission, in consultation with the department of state parks and cultural resources, may restrict watercraft usage on waters of the state as provided in W.S. 41-13-211(b) upon a finding that a specific body of water is threatened with the imminent introduction of an aquatic invasive species or an aquatic invasive species has been introduced to the specific body of water.

(d) Any peace officer is authorized to stop and inspect for the presence of aquatic invasive species or for proof of required inspection any conveyance:

(i) Immediately prior to a boat, vessel or watercraft being launched into waters of the state;

(ii) Prior to departing from the waters of this state or a boat, vessel or watercraft staging area;

(iii) That is visibly transporting any aquatic plant material; or

(iv) Upon a reasonable suspicion that an aquatic invasive species may be present.

(e) A peace officer may order the decontamination of a conveyance upon a determination that an aquatic invasive species is present after conducting an inspection as provided in this section.

(f) A peace officer may impound and quarantine a conveyance if:

(i) The peace officer finds that an aquatic invasive species is present after conducting an inspection authorized by this section;

(ii) The person transporting the conveyance refuses to submit to an inspection authorized by this section; or

(iii) The person transporting the conveyance refuses to comply with an order authorized by this section to decontaminate the conveyance.

(g) An impoundment and quarantine of a conveyance may continue for the reasonable period necessary to inspect and decontaminate the conveyance and to ensure that the aquatic invasive species has been completely eradicated from the conveyance or is no longer living.

(h) As provided in this subsection, every conveyance entering the state by land shall be inspected by an authorized aquatic invasive species inspector in accordance with rules established by the commission prior to contacting or entering the waters of this state. The commission shall promulgate rules establishing the dates when such inspections are required and qualifications for authorized inspectors.

(j) The commission, in coordination with the department of transportation, the department of state parks and cultural resources and the department of agriculture, is authorized to establish and inspect conveyances at mandatory aquatic invasive species check stations at ports of entry, other department of transportation facilities located near the borders of this state that meet established state and national safety and commerce requirements for the traveling public or other appropriate facilities.

23-4-204. Rulemaking authority; fees.

(a) The commission and the department of state parks and cultural resources shall promulgate rules to administer and enforce the provisions of this article.

(b) The commission and the department of state parks and cultural resources shall establish and collect fees in accordance with the following:

(i) An annual fee shall be collected by the commission or the department of state parks and cultural resources for every watercraft before the watercraft enters the waters of the state. Payment of the fees shall be evidenced by a sticker placed on the bow of the watercraft and no person shall operate nor shall the owner permit the operation of any watercraft on the waters of the state without payment of the fees provided in this section and display of the sticker on the bow of the watercraft. For purposes of this paragraph, "watercraft" means any contrivance used or designed primarily for navigation on water but does not include personal flotation devices or water sport toys;

(ii) Fees shall be established by commission rule or regulation promulgated in accordance with the Wyoming Administrative Procedure Act;

(iii) Fees shall be established in an amount to ensure that, to the extent practicable, the total revenue generated from the fees collected approximates, but does not exceed, the direct and indirect costs of administering the regulatory provisions required under this article.

(c) The department of state parks and cultural resources may collect fees and shall transfer those fees collected to the commission for deposit in the account created pursuant to W.S. 23-1-501(g).

23-4-205. Penalties.

(a) Any person who violates the provisions of this article or any order under this article is guilty of a high misdemeanor punishable as provided in W.S. 23-6-202(a)(ii).

(b) In addition to any other criminal penalty provided in this section any person who violates any provision of this article, may be assessed civil penalties in an amount not to exceed the costs incurred by the commission and the department of state parks and cultural resources in enforcing the provisions of this article but shall not include costs associated with the eradication of an aquatic invasive species introduced into the waters of this state. The commission or the department of state parks and cultural resources may bring a civil action in any court of competent jurisdiction for civil penalties or injunctive relief.

23-4-206. Reciprocal aquatic invasive species program agreements with adjoining states authorized; water subject to agreements; implementing orders.

(a) The commission is authorized to enter into reciprocal agreements with corresponding state officials of adjoining states for purposes of providing for the recognition of aquatic invasive species programs at least as restrictive as those in Wyoming, for boating by residents of this state and adjoining states upon artificial impoundments of water forming the boundary between this state and adjoining states. The agreements may include provisions by which each state shall honor the aquatic invasive species program fees of the other state. Watercraft operators from the other state shall display proof of payment of the appropriate aquatic invasive species program fee from the other state and any additional reciprocity fee to the state of Wyoming set by mutual agreement of the states.

(b) It is the primary purpose of this section to provide a method whereby the boating opportunities afforded upon artificial impoundments of water forming the boundary between this state and adjoining states may be mutually enjoyed by the residents of Wyoming and the residents of adjoining states.

(c) The commission is authorized to establish orders as provided in this act to implement any agreements under this section.

Appendix H: Wyoming Game and Fish Commission AIS Regulation; Chapter 62.

WYOMING GAME AND FISH COMMISSION CHAPTER 62
REGULATION FOR AQUATIC INVASIVE SPECIES

Section 1. Authority. These regulations are promulgated by authority of W.S. §23-1-102, W.S. §23-4-201 through W.S. §23-4-205.

Section 2. Definitions. Definitions shall be as set forth in Title 23, Wyoming Statutes, Commission regulations, and the Commission also adopts the following definitions:

(a) "Aquatic invasive species" is defined in W.S. §23-4-201(a)(i). Aquatic invasive species include some species known to be present in Wyoming and species with a high potential to invade, survive and reproduce.

(i) Aquatic invasive species include:

(A) All members of the genus *Dreissena*, including, but not limited to, zebra mussel *D. polymorpha* and quagga mussel *D. rostriformis*;

(B) New Zealand mudsnail - *Potamopyrgus antipodarum*; (C) Asian clam - *Corbicula fluminea*;

(D) Rusty crayfish - *Orconectes rusticus*;

(E) Brook stickleback - *Culaea inconstans*;

(F) All members of the genus *Hypophthalmichthys*, including, but not limited to, bighead carp *H. nobilis*, silver carp *H. molitrix*, and largescale silver carp *H. harmandi*;

(G) Black carp - *Mylopharyngodon piceus*;

(H) All members of the genera *Channa* and *Parachanna* in the family Channidae (snakeheads);

(I) Hydrilla - *Hydrilla verticillata;*

(J) Eurasian watermilfoil - *Myriophyllum spicatum*; and,

(K) Curly pondweed – Potamogeton crispus.

(b) "Authorized inspector" means an authorized aquatic invasive species inspector who has a valid certification from an aquatic invasive species inspection training course that meets the requirements established by the Wyoming Game and Fish Department (Department) to certify inspectors for aquatic invasive species inspections and decontaminations.

(c) "Certified inspection location" means a location or an address where a Department authorized inspector may be available to conduct an inspection.

(d) "High risk infested water" means a water in any state or province known or suspected to contain Dreissenid mussels. A list of all high risk infested waters will be available on the Department website.

(e) "Interstate water" means Big Horn Lake downstream from the causeway (Highway 14A) in Bighorn County, Flaming Gorge Reservoir in Sweetwater County, and Palisades Reservoir and the Snake River (South

Fork Snake River) between the Greys River in Lincoln County and the Heise Bridge crossing in Bonneville County, Idaho.

(f) "Mandatory aquatic invasive species check station" means a location established by the Department at ports of entry, other department of transportation facilities located near the borders of this state that meet established state and national safety and commerce requirements for the traveling public or other appropriate facilities where stopping is mandatory and an authorized inspector may conduct an inspection.

(g) "Seal" means a locking device affixed to a conveyance that has been inspected or decontaminated.

(h) "Valid seal receipt" means a written document issued by an authorized inspector in conjunction with a seal that contains a number matching the number on the seal and information regarding the conveyance.

(i) "Watercraft" is defined in Chapter 22, Watercraft Regulation.

(j) "Water of the state" means all waters under the jurisdiction of the state of Wyoming.

Section 3. Inspection.

(a) Compliance with aquatic invasive species inspection requirements is an express condition of allowing a conveyance to contact or enter any water of the state.

(i) Any person who refuses to permit inspection of their conveyance or refuses to complete any required removal and disposal of aquatic invasive species shall be prohibited from allowing the conveyance to contact or enter any water of the state.

(ii) If a person refuses to allow inspection of a conveyance or to complete any required removal and disposal of aquatic invasive species prior to departure from any water of the state known to contain an aquatic invasive species, the conveyance is subject to impoundment until an aquatic invasive species inspection and decontamination is completed.

(b) Authorized inspectors may inspect any conveyance. Authorized inspectors shall perform decontaminations at the direction of a peace officer or with the voluntary consent of the person transporting the conveyance.

(c) Inspections shall be conducted by:

(i) any peace officer; or,

(ii) any authorized inspector.

(d) Inspections shall be conducted in accordance with Department procedures at:

(i) a mandatory aquatic invasive species check station; or,

(ii) a certified inspection location; or,

(iii) another location where an authorized inspector is available to conduct an inspection.

(e) Any person transporting a conveyance that within the past thirty (30) days HAS BEEN in contact with a high risk infested water in any state or province, shall have the conveyance inspected by an authorized inspector prior to contacting or entering any water of the state.

(f) Any person transporting a conveyance into the state by land from March 1 through November 30, that HAS NOT BEEN in contact with a high risk infested water within the past thirty (30) days, shall have the conveyance inspected by an authorized inspector prior to contacting or entering any water of the state, unless exempted by (i) below.

(i) Any person transporting a watercraft who did not encounter a mandatory aquatic invasive species check station prior to reaching a water of the state may launch without inspection if the watercraft bears a properly affixed seal applied by an authorized inspector and is accompanied by a valid seal receipt during transit. The person transporting the watercraft may remove the seal immediately prior to launching on the destination water and must retain the seal and valid seal receipt while on the water.

(g) Any person transporting a conveyance into the state by land from December 1 through the last day of February that has not been in contact with a high risk infested water within the past thirty (30) days and did not encounter a mandatory aquatic invasive species check station prior to reaching a water of the state, is exempted from mandatory inspection.

(h) All conveyances are subject to inspection in accordance with Department procedures upon encountering a mandatory aquatic invasive species check station.

(i) Authorized inspectors shall determine if there is reason to believe that aquatic invasive species are present by interviewing the person transporting the conveyance or using visual and tactile inspection methods. As part of all inspections, all compartments, equipment, and containers that may hold water, including, but not limited to, live wells, ballast and bilge areas shall be completely drained as directed by authorized inspectors.

(j) A conveyance suspected to contain an aquatic invasive species shall be decontaminated using Department approved procedures before said conveyance shall be allowed to contact or enter any water of the state.

(k) Any person operating a conveyance may be ordered to remove the conveyance from any water of the state or any conveyance staging area by any peace officer if there is reason to believe the conveyance may contain aquatic invasive species or was not properly inspected prior to contacting or entering the water. Once removed from the water, the conveyance shall be subject to inspection and decontamination for the removal and disposal of aquatic invasive species.

(l) Any authorized inspector who, through the course of an inspection, determines that aquatic invasive species are present shall document the inspection, including but not limited to the type and number of aquatic invasive species suspected or detected and identification of the conveyance, including license plate numbers and watercraft registration number, if available. The authorized inspector shall advise the operator that the conveyance shall be required to be decontaminated according to Department procedures as soon as possible. Only peace officers have the authority to order decontamination, impoundment, or quarantine of a conveyance.

(m) Once a conveyance is inspected or decontaminated, a seal may be affixed to the conveyance by a peace officer or authorized inspector. A copy of the completed valid seal receipt shall accompany all seals. Seals shall be affixed to a conveyance in accordance with Department procedures. A seal, once properly affixed to a conveyance and when accompanied by the valid seal receipt, certifies a proper inspection or

decontamination procedure. The person transporting a conveyance sealed by an authorized inspector may remove the seal at their discretion. The Department may recognize a properly affixed seal applied by an authorized inspector from a state or province with a Department approved aquatic invasive species program if the seal is accompanied by a valid seal receipt. It shall be a violation of this regulation for any person to attempt to reattach any seal once it is removed from a conveyance.

Section 4. Decontamination.

(a) The Department shall only recognize decontamination methods described in this Section as proper Department procedures. All decontaminations shall be completed following all applicable laws, disposal methods, recommended safety precautions, safety equipment, and Department approved procedures.

(b) Decontamination shall be achieved by removal of the conveyance from any water body and eliminating the water from all compartments, equipment, and containers that may hold water, including but not limited to live wells, ballast tanks and bilges for a length of time as determined by the Department not to exceed thirty (30) days.

(c) If decontamination is not achieved by removal of the conveyance from any water body for at least thirty (30) days, the following requirements apply:

(i) Decontamination of water compartments, equipment or containers in a conveyance to address the potential presence of an aquatic invasive species shall be accomplished by rinsing and flushing with water of at least 120 degrees Fahrenheit.

(ii) Decontamination of the exterior of a conveyance shall be accomplished by removing or destroying all aquatic invasive species, mud, plants, and organisms. The entire exterior of the conveyance and all intakes shall be thoroughly washed with water of at least 140 degrees Fahrenheit. A high pressure (minimum of 2500 psi) water wash or scrubbing will be used as necessary.

(iii) All compartments, equipment and containers that hold water including, but not limited to live wells, ballast and bilge areas, shall be flushed with water of at least 120 degrees Fahrenheit but not at high pressure. If a bilge pump is present, it shall be operated until the bilge appears to be empty. The lower unit of the engine shall be thoroughly flushed with water of at least 140 degrees Fahrenheit.

(iv) After decontamination an authorized inspector or peace officer shall re-inspect the conveyance to ensure complete decontamination has occurred prior to the release of the conveyance.

(v) Proof of decontamination shall consist of a properly affixed seal and valid seal receipt or a copy of the Department decontamination form if no seal was applied.

Section 5. Impoundment and Quarantine.

(a) A peace officer may impound and quarantine a conveyance as provided in W.S. §23-4-203.

(b) If the person in charge of the conveyance is not the registered owner, the registered owner shall be notified by mail, return receipt requested, within ten days of the location of the impounded conveyance. Such notification shall also include contact information for the peace officer ordering the impoundment. If the registered owner is present when the conveyance is ordered impounded, then the same information shall be provided to the registered owner at the time the impound order is issued.

(c) All impounded conveyances shall be held at the risk and expense of the owner. A conveyance held under impound for non-compliance with this regulation shall only be released after a peace officer is satisfied by inspection or quarantine that the conveyance is no longer a threat to the aquatic resources, water supplies, and water infrastructure of the state.

(d) Duration of conveyance quarantine shall be determined by the Department, shall be sufficient to allow decontamination, and shall not exceed thirty (30) days.

(e) An impounded conveyance shall not be released until a Department impound release form is signed and executed by a peace officer. It is the responsibility of the owner to coordinate with the Department for the release of the conveyance.

Section 6. Mandatory Reporting of Aquatic Invasive Species.

(a) Identification of an aquatic invasive species through sampling and monitoring procedures at a location where that species has not been known to exist shall be reported immediately to the Department.

(b) Any person who knows that an unreported aquatic invasive species is present at a specific location in Wyoming shall report the aquatic invasive species presence within forty-eight (48) hours to the Commission, the Department, or any peace officer. An aquatic invasive species report shall include the date and time of the detection of the aquatic invasive species, the exact location of sighting (water body and specific location on the water body), the suspected species, and the name and contact information of the reporter. Samples collected of suspected aquatic invasive species shall be submitted to the Department within forty-eight (48) hours.

Section 7. Aquatic Invasive Species Check Stations.

(a) All mandatory aquatic invasive species check stations shall be signed.

(b) Check stations shall be operated in accordance with Department procedures.

(c) Lists of mandatory aquatic invasive species check stations and certified inspection locations shall be provided on the Department website.

Section 8. Aquatic Invasive Species Program Decal.

(a) An aquatic invasive species program fee may be assessed as part of the Department's motorized watercraft registration fee. A current, properly affixed motorized watercraft registration decal shall be proof of payment of this fee.

(b) All owners or operators of motorized watercraft registered outside of Wyoming, any owners or operators of Wyoming registered watercraft that have not paid the aquatic invasive species program fee as part of their watercraft registration fee and all owners or operators of non-motorized watercraft shall purchase and display an Aquatic Invasive Species Program Decal valid for the current calendar year on their watercraft prior to contacting or entering any water of the state.

For the purpose of this Section, all non-motorized inflatable watercraft ten (10) feet in length or less are exempt from this decal provision.

(c) Aquatic Invasive Species Program Decals shall not be limited in number and shall be sold through the Electronic Licensing System (ELS), designated license selling agents, and authorized personnel. The price of the decal shall be ten dollars ($10) for motorized watercraft registered in Wyoming and thirty dollars ($30) for motorized watercraft registered outside of Wyoming. The price of the decal shall be five dollars ($5) for non-motorized watercraft owned by a Wyoming resident and fifteen dollars ($15) for non-motorized watercraft owned by a nonresident.

(i) Owners or operators of motorized watercraft required to purchase an Aquatic Invasive Species Program Decal shall display the decal on the starboard (right) side of the bow six (6) inches left of and directly in line with the watercraft registration decal. Non-motorized watercraft owners or operators shall display the decal on the bow in such a manner that the decal shall be visible when the watercraft is underway. Only the Aquatic Invasive Species Program Decal which is currently valid shall be displayed.

(ii) In the case of rental watercraft, it shall be the responsibility of the rental watercraft owner to ensure that a valid Aquatic Invasive Species Program Decal is properly displayed on the watercraft.

NOTES: