

AIS Prevention Report 2024

Aquatic invasive species (AIS) can cause significant damage to fisheries, water-based infrastructure, hydropower generation, irrigation, and recreation. Preventing the introduction of AIS avoids expensive mitigation costs, preserves recreation opportunities, and protects fisheries habitat. AIS are primarily transported by watercraft and water based equipment and a network of inspection stations have been established to address AIS movement. Montana Fish Wildlife & Parks (FWP) along with tribes, conservation districts, counties, cities, and state and federal partners all coordinate closely together to manage watercraft inspection stations state-wide to ensure all boats are clean, drained, and dry.

New in 2024

- Coordinated with enforcement to improve boater compliance statewide.
- Conducted inspections at Fort Peck and Flathead Lake boat ramps looking for out of state boater compliance.
- ▶ Updated and improved data collection system including printers and text receipts at stations.
- Expanded quality control at inspection stations.
- Expanded partner involvement with management and operation of watercraft inspection stations.
- Helped inspect moored vessels at Pactola, South Dakota.



Picture: New On Demand systems 2024.

AlS are primarily transported on watercraft by "hitchhiking". Some AlS actively stick onto boats while others can become entangled on boat motors or trailers. Other AlS can be transported in standing water. Watercraft inspection addresses this issue by making sure all watercraft are cleaned, drained and dry, ensuring AlS are not being transported. Inspection stations also help educate boaters to clean their boats every time they leave the water to help protect the waters they enjoy from the impacts of AlS.

INTRODUCTION

Montana Fish Wildlife & Parks (FWP) is the lead agency in the state addressing aquatic invasive species (AIS) issues. FWP, Montana Department of Agriculture (MDA), Montana Department of Natural Resources and Conservation (DNRC), and Montana Department of Transportation (MDT) collectively are responsible for the implementation of the Montana AIS Management Plan. Roles and responsibilities for implementation of the plan are outlined through a memorandum of understanding (MOU) between agencies. The goal of the plan is to minimize the harmful impacts of AIS by limiting or preventing the spread of AIS. This goal is achieved through coordination and collaboration between partner agencies and stakeholder groups; prevention of new AIS introductions; early detection and monitoring of invasive aquatic plants, animals, and pathogens; control and eradication of new and established AIS populations; and outreach and education efforts. This report focuses on the prevention of new AIS introductions in the state. Prevention is primarily accomplished through watercraft inspection stations.

Montana FWP has been operating watercraft inspection stations since 2004. Watercraft and water-based equipment are the most common vector for the transport of AIS and are the focus for prevention efforts. Inspection stations inspect boats and equipment for aquatic organisms, standing water, and illegal bait and fish. Stations also educate the public about the importance of following Clean, Drain and Dry protocols and encourage boaters to do their part to protect the waters they enjoy from AIS.

Following the detection of dreissenid mussels in Tiber Reservoir in 2016, the program rapidly expanded. Additional stations were established, and program staffing levels were increased. The watercraft inspection season was extended as well as hours of operation. FWP also began contracting with partners to operate watercraft inspection stations, allowing for local management and oversight. In 2024, 12 inspection stations were contracted through partners around the state. In addition, Glacier National Park and Yellowstone National Park operate watercraft inspection stations within Park boundaries. The City of Whitefish, CSKT, the Blackfeet Nation, and the Swan Lakers also independently fund stations for inspecting boats.

2024 ACCOMPLISHMENTS

Accomplishments during the 2024 watercraft inspection season include:

- Over 130,000 watercraft inspections conducted by FWP and partners in Montana.
- 47 zebra and quagga mussel fouled vessels intercepted and over 800 vessels intercepted transporting aquatic weeds.
- BIG (Boater Information Gathering) projects at Fort Peck and Flathead Lake looking for boats that reach these waterbodies that didn't get inspected on route to these waterbodies.
- Continued strong partnerships to operate watercraft inspection stations state-wide including contracting with the Confederated Salish and Kootenai Tribes (Ravalli and Thompson Falls), the Blackfeet Nation (Browning), The Little Shell of the Chippewa Tribe, Missoula County (Clearwater Junction), Garfield Conservation District (Wibaux and Flowing Wells), McCone Conservation District (Nashua), Bighorn Conservation District (St. Xavier and Hardin), Beaverhead Conservation District (Dillon), Powder River Conservation District (Broadus), Flathead Conservation District, and Lincoln Conservation District (Eureka).
- Printing, emailing, and texting inspection receipts at stations.

- Coordinated with partners on other non-FWP funded stations including Glacier, Yellowstone National Park, and the City of Whitefish.
- Improved the WID mobile data application to improve data collection.
- Updated watercraft inspection training including revised curriculum, training manual, student workbook, and smaller classes.
- Extended season of operation at most stations (almost 9 months) with on call at Broadus and Nashua for the shoulder season during hunting.
- Targeted law enforcement to improve boater compliance at inspection stations.
- Continued to refine the quality control program and communication plan.

AREAS OF RESPONSIBILITY FOR 5 FWP PREVENTION PROGRAM SUPERVISORS

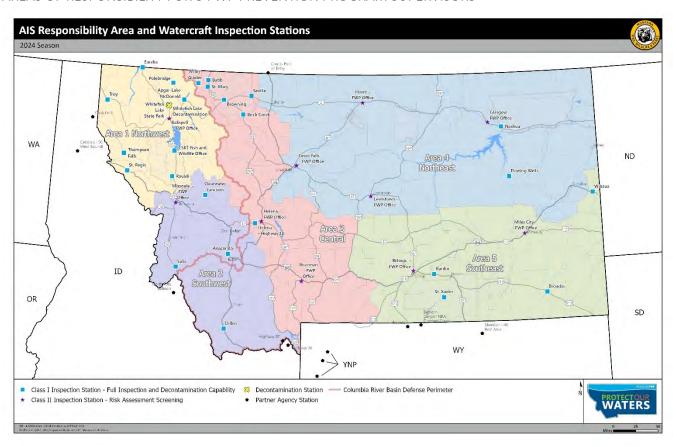


Figure 1. Geographic areas of responsibility for each of the five FWP watercraft inspection and decontamination station supervisors, 2024.

The AIS supervisors by their areas of responsibility are:

- > Tayler Templin area 1 northwest
- ➤ Jim Vojahosky area 2 southwest
- ➤ Andrew Rivers area 3 central
- ➤ Austin Jaynes area 4 northeast
- ➤ Paul Bramblett area 5 southeast

Supervisor duties include hiring, training, managing staff, logistics, partnerships, quality control, compliance, education and outreach, and maintenance. AIS Supervisors also serve as the AIS contact in their regions of operation.

WATERCRAFT INSPECTION STATION LOCATIONS

Watercraft inspection stations are established in locations to address watercraft that present the highest risk of transporting AIS. Stations are located on high traffic corridors entering the state, crossing west over the Continental Divide, and at other strategic locations to intercept high risk boat traffic.



Figure 2. 2024 FWP Seasonally permanent watercraft inspection stations.

WATERCRAFT INSPECTION STATION TOTALS

FWP and partners performed 130,771 watercraft inspections this season (Figure 3). Of that total, FWP inspected 35,876 and contracted partner stations inspected 93,226 watercraft. Other partners conducted the balance of those inspections including 4,630 from Glacier National Park, 976 from the Swan Lakers, and 1,669 from the City of Whitefish (Figure 4). Stations operated from March 9th to October 27th in 2024 with most stations operating between April and October (Table 1).

The 2024 season had inspection numbers similar to those observed in 2023. Inspections in 2020 set an all-time record for inspections in the state due to COVID and an increase in local recreation. Totals include inspections at FWP stations, contracted stations, other partners conducting inspections, and regional and area offices in the state.

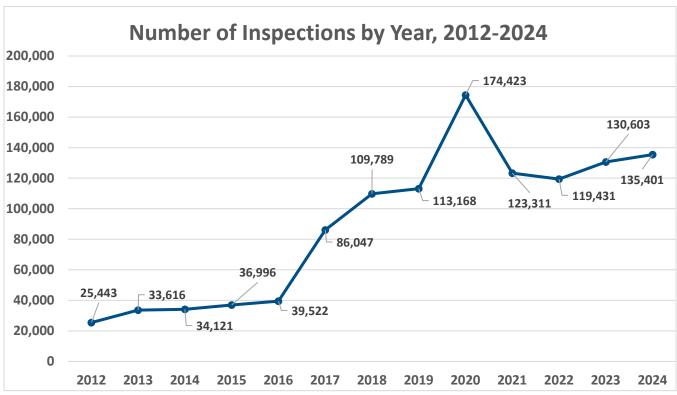


Figure 3. Number of Watercraft Inspections by Year.

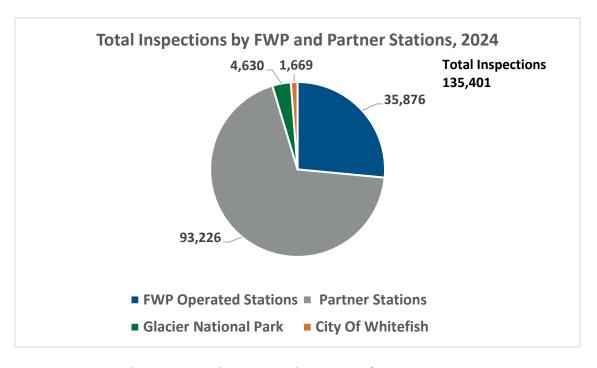


Figure 4. FWP and partner involvement with Watercraft inspections in 2024.

Table 1. Summary of FWP 2024 Watercraft Inspection Stations.

| Station | Zebra / Quagga Mussels | Animals Found | Vegetation | Standing Water | Dirty, Crusty, Slimy | Illegal Bait | Illegal Fish | Ballast Boats | Total Mitigations | Out-of- State | In-State | Total Inspections | |
|------------------------------------|------------------------------|------------------|------------|-------------------|----------------------------|-----------------|-----------------|------------------|----------------------|------------------|----------|----------------------|--|
| Border Stations | | | | | | | | | | | | | |
| Nashua (MCCD) | 0 | 1 | 13 | 238 | 7 | 0 | 0 | 1 | 260 | 1,303 | 1,196 | 2,499 | |
| St. Regis | 0 | 3 | 211 | 282 | 3 | 0 | 0 | 184 | 683 | 5,920 | 585 | 6,505 | |
| Dillon (BCCD) | 10 | 4 | 37 | 226 | 2 | 0 | 0 | 249 | 528 | 4,355 | 431 | 4,786 | |
| Eureka | 0 | 3 | 99 | 227 | 19 | 0 | 0 | 228 | 576 | 2,321 | 550 | 2,871 | |
| Hardin (BCCD) | 1 | 2 | 17 | 659 | 6 | 0 | 0 | 356 | 1,041 | 3,861 | 3,708 | 7,569 | |
| Troy | 0 | 1 | 25 | 56 | 0 | 0 | 2 | 59 | 143 | 2,819 | 3,817 | 6,636 | |
| Broadus (PRCD) | 2 | 4 | 5 | 102 | 0 | 0 | 0 | 3 | 116 | 1,524 | 134 | 1,658 | |
| Wibaux (GCCD) | 12 | 4 | 13 | 408 | 12 | 0 | 0 | 29 | 478 | 2,578 | 143 | 2,721 | |
| Continental Divide Stations | | | | | | | | | | | | | |
| Anaconda | 15 | 20 | 182 | 608 | 2 | 0 | 0 | 569 | 1,396 | 7,241 | 5,695 | 12,936 | |
| Browning (Blackfeet Nation) | 0 | 1 | 5 | 34 | 0 | 0 | 0 | 146 | 186 | 2,268 | 3,776 | 6,044 | |
| Clearwater Junction (MSLA County) | 0 | 2 | 70 | 414 | 2 | 0 | 0 | 593 | 1,081 | 9,945 | 22,116 | 32,061 | |
| Highway 12 Helena | 0 | 3 | 90 | 355 | 4 | 0 | 0 | 119 | 571 | 1,708 | 4,767 | 6,475 | |
| Sula | 0 | 0 | 4 | 27 | 0 | 0 | 0 | 6 | 37 | 1,819 | 637 | 2,456 | |
| Interior Stations | | | | | | | | | | | | | |
| St. Xavier (BCCD) | 0 | 0 | 1 | 72 | 0 | 0 | 0 | 245 | 318 | 1,692 | 4,108 | 5,800 | |
| Flowing Wells (GCCD) | 3 | 2 | 19 | 772 | 6 | 0 | 0 | 4 | 806 | 1,932 | 1,852 | 3,784 | |
| Ravalli (CSKT) | 0 | 0 | 6 | 131 | 0 | 0 | 0 | 552 | 689 | 7,024 | 10,658 | 17,682 | |
| Thompson Falls (CSKT) | 0 | 1 | 20 | 159 | 0 | 0 | 0 | 69 | 249 | 1,581 | 3,194 | 4,775 | |
| Swan Lakers | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 976 | |
| Whitefish Lake (City of Whitefish) | 0 | 0 | 6 | 122 | 2 | 0 | 0 | 216 | 346 | 121 | 1,548 | 1,669 | |
| Parks | | | | | | | | | | | | | |
| Tongue River State Park | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | |

| Station | Zebra / Quagga Mussels | Animals Found | Vegetation | Standing Water | Dirty, Crusty, Slimy | Illegal Bait | Illegal Fish | Ballast Boats | Total Mitigations | Out-of- State | In-State | Total Inspections |
|-----------------------|------------------------------|------------------|------------|-------------------|----------------------------|-----------------|-----------------|------------------|----------------------|------------------|----------|----------------------|
| Glacier National Park | 1 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 1 | n/a | n/a | 4,630 |
| Regional Offices | | | | | | | | | | | | |
| Regional Offices | 3 | 2 | 15 | 55 | 2 | 0 | 0 | 22 | 99 | 505 | 356 | 861 |
| Totals | 47 | 53 | 838 | 4,947 | 67 | 0 | 2 | 3,650 | 9,604 | 60,524 | 69,271 | 135,401 |

ORIGIN OF WATER USERS, RELATIVE RISK, AND BOATER MOVEMENT

The origin of watercraft and subsequent movement is valuable information that helps guide the placement of watercraft inspection stations. Boats traveling from eastern states tend to come from areas where zebra mussels, quagga mussels and invasive aquatic plants are prevalent, such as the Great Lakes region. Boats coming from southwestern states could be carrying quagga mussels from the lower Colorado River System. Boats that originate in-state also are at risk of transporting AIS and must be cleaned, drained and dry. Of the 135,401 watercraft that passed through inspection stations during the 2024 season, 69,271 were from Montana and 60,524 were from out of state. These values don't include the Swan Lakers (976), City of Whitefish (1,669) and Glacier National Park (4,630).

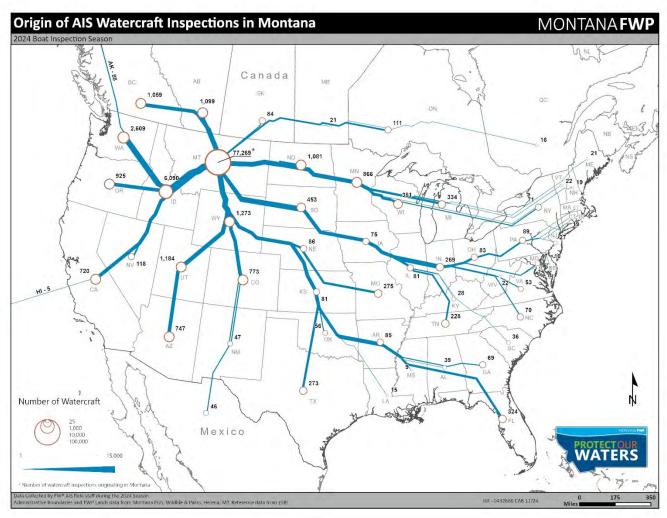


Figure 5. Origin of Montana inspected watercraft in 2024 by postal code.

This figure illustrates the great distances people will travel to recreate in Montana. It is important to the overall prevention strategy to ensure both out-of-state and in-state boaters always clean, drain and dry their watercraft.

IN-STATE AND OUT-OF STATE BOATS

Inspection stations at the state borders see a high numbers of out-of-state boats that present high risk of AIS transport and introduction. Used boats purchased from out-of state also present a significant risk of transporting AIS, particularly boats from midwestern states. In 2024, 21 of the 47 boats intercepted transporting zebra or quagga mussels were recently purchased.

Internal stations provide another level of protection for high risk boats that might miss an inspection at the border. Internal stations also help prevent movement of AIS between Montana waters. In-state boats can transport AIS including species such as Eurasian watermilfoil, New Zealand mudsnails, Corbicula, faucet snails, illegal bait/live fish, and pathogens between waterbodies.

AIS INTERCEPTED

Out of the 135,401 inspections during the 2024 field season, 9,604 boats had some type of issue identified (Table 1). Standing water (water in bilges, live wells, etc.) was the most common factor identified followed by ballast boats needing a decontamination, and vegetation. Standing water is a concern because it can carry mussel larvae, disease-causing pathogens, and plant fragments. Zebra or quagga mussels were found on 47 boats over the course of the season (Figures 6, 7, and 8). These vessels were decontaminated on-site and require a follow up inspection / decontamination before they were permitted to launch. Additional dry time was sometimes required to ensure no live mussels remain on the vessel.

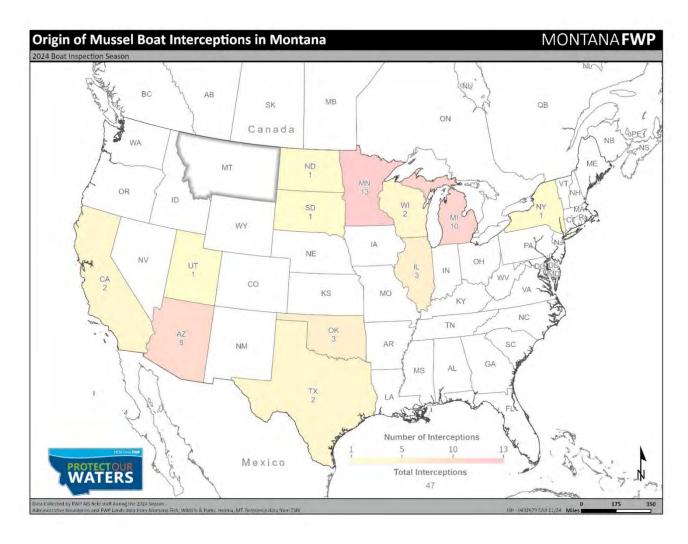


Figure 6. Origin of mussel fouled vessels intercepted at Montana watercraft inspection stations in 2024.

When a mussel-infested boat or piece of equipment is found, protocol mandates that staff from the FWP AIS management team are contacted and oversee decontamination. If the boat is complex (air conditioning unit, seas strainers, multiple internal compartments, complex plumbing, or ballast tanks), marine mechanics may be brought in to aid in the decontamination process. Boats must pass a second inspection before they can launch in Montana waters. Forty-seven mussel fouled vessel were intercepted in Montana in 2024 and 298 mussel fouled vessels were intercepted over the last eight years (Figure 7). The majority of mussel fouled vessels intercepted in Montana are from Midwest and Great Lakes states. Many of these vessels are used boats that are purchased out of state then transported to and through Montana. FWP is working with regional and national partners to better address this pathway to ensure boats are clean when they are transported to Montana.

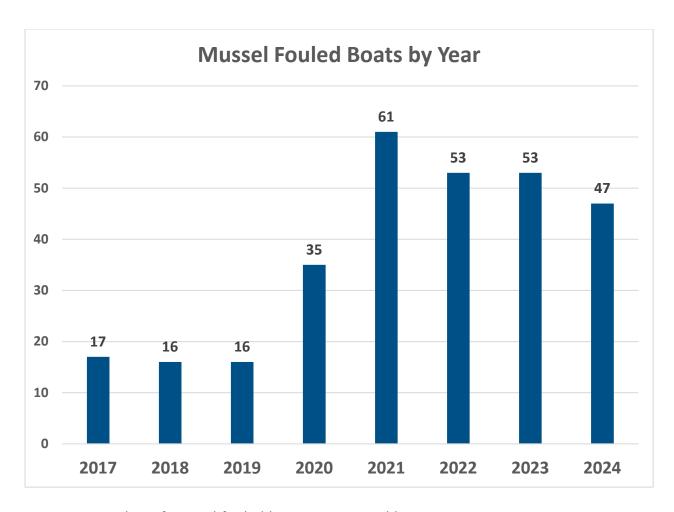


Figure 7: Number of mussel fouled boats intercepted by year.

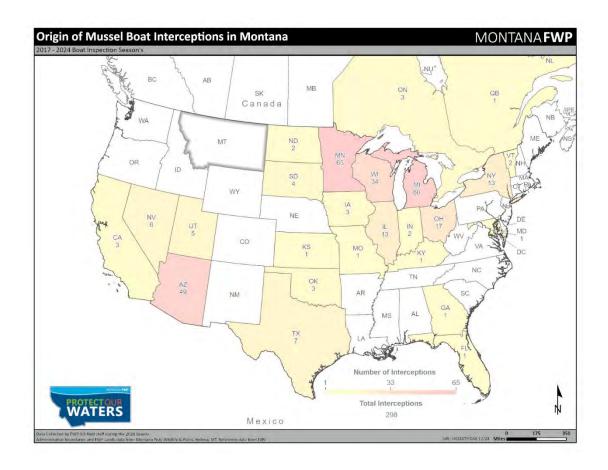


Figure 8: Mussel fouled vessel origin from 2017 to 2024.

BOATER INFORMATION GATHERING (BIG)

The BIG project started at Fort Peck Reservoir in 2022. In 2024, we added Flathead Lake to this project. The goal of the BIG project is to interview boaters when they get to these waterbodies to see if they were inspected prior to their arrival.

- 1.) Fort Peck At this reservoir out of state boaters were interviewed regarding inspection prior to arrival at the waterbody. If they were inspected, they were released to launch. If they weren't inspected, data was collected to see how they came into the state and why they weren't inspected. This information allows us to examine holes in the prevention net.
 - a. In 2024, the Little Shell of the Chippewa Tribe helped with the BIG project at Hell Creek access along with Garfield Conservation District for a total of 238 interviews.
 - i. The Little Shell of the Chippewa Tribe did 42 interviews and all boaters had received inspection prior to getting to the ramp.
 - ii. Garfield county interviewed 209 boaters and all but 6 had been inspected prior to getting to the boat ramp. Most of these boaters went by Nashua after hours or didn't stop at the station. This is 2.9% of boaters that didn't receive an inspection.

- 2.) Flathead Lake boaters at this lake were interviewed regarding inspection prior to arrival at the waterbody. There is a Flathead basin rule in effect associated with Flathead Lake. This rule requires boater to be inspected if they leave the basin and then intend to launch within the basin. This is added protection above State law requiring all watercraft to be inspected entering Montana or crossing the continental divide.
 - a. In 2024, 1,670 boaters were interviewed, and 31 boaters didn't get inspected entering the Flathead Basin. Most of these vessels had launched just outside the basin but still in Montana. There were a few from WA and ID, but the majority remained west of the continental divide in Montana. This is 1.8% of boaters that didn't receive an inspection returning or coming to Flathead Lake.

TABLE 1. FLATHEAD LAKE BIG PROJECT, 2024

| Flathead Lake BIG Project 2024 | | | | | |
|--------------------------------|-------------------------------------|--|--|--|--|
| Vessels not Inspected | Last Waterbody / Reason | | | | |
| 2 | New Boat | | | | |
| 1 | Troy after hours | | | | |
| 1 | Drive by St. Regis | | | | |
| 6 | Koocanusa | | | | |
| 6 | McGregor | | | | |
| 1 | Moses Lake, WA / Drive by St. Regis | | | | |
| 4 | Unknown, WA | | | | |
| 1 | Spotted Eagle Lake, MT | | | | |
| 1 | Two Medicine, MT | | | | |
| 1 | Lake Como, MT | | | | |
| 1 | Eureka after hours | | | | |
| 2 | Seeley Lake, MT | | | | |
| 1 | Salmon Lake, MT | | | | |
| 1 | Alberta | | | | |
| 1 | Thompson Falls after hours | | | | |
| 1 | Unknown, AZ | | | | |

LIVE FISH

It is illegal to transport live fish, including bait fish, into Montana without authorization from FWP, and it is unlawful to possess or transport live fish away from the body of water in which the fish were taken anywhere in the western and central fishing district. Live non-game fish may be used as bait in certain waters in the central and eastern fishing districts. These regulations exist to prevent the introduction of non-native fish into Montana's waters. Fish and the water they are transported in can also carry pathogens, weeds, snails, mussels, or other AIS. In 2024, inspectors found 2 cases of illegal live fish over the course of the season. Standard protocol for inspection staff is to call an FWP game warden when illegal live fish are found and follow their lead.

LIVE BAIT OTHER THAN FISH

Live animals such as mealworms, red worms, night crawlers, leeches, maggots, crayfish, reptiles, amphibians, and insects may be used as bait on all waters, but some live bait animals may not be imported into the state without authority from FWP. For example, anglers who use leeches in Montana must have purchased them within Montana or have a bill-of-sale from an FWP-approved out-of-state dealer. Leeches have the potential to transport pathogens and mussel larvae in the water that they are transported in. Watercraft station inspectors contact an FWP warden and confiscate leeches if the angler cannot prove out of state leeches were legally obtained. FWP and partner inspectors found zero cases of illegal leeches in 2024.



ST. REGIS WATERCRAFT INSPECTION STATION

ENFORCEMENT AND COMPLIANCE

Compliance at watercraft inspection stations is an ongoing challenge. To address this, FWP installs signage, flagging and lighted message boards to clearly indicate the inspection station and the mandatory need to stop. Despite this fact, boaters sometimes fail to stop at the station. FWP Wardens dedicate time to work at stations throughout the season to enforce compliance. When wardens aren't present, station staff are trained to call the Montana Highway Patrol dispatch 1-406-841-7022 or use text chains to contact enforcement if a boat fails to stop at the station. Enforcement officers from FWP, state police or local enforcement then attempt to follow up with that watercraft. FWP wardens issued 47 AIS related citations and 91 warnings for failure to stop at inspection stations and 7 citations and 42 warnings for non-residents not purchasing the vessel prevention pass in 2024. FWP wardens also stop boats on the water to ensure boaters have the proper safety equipment, check fishing licenses, vessel prevention pass, and verify boats have met mandatory inspection requirements for entering the

state or crossing west over the Continental Divide.

The AIS prevention program works closely with the law enforcement division to help direct them to the locations with the greatest compliance challenges. The enforcement division did a great job across the state. From 2017-2023 compliance has continued to improve and data from the enforcement division demonstrations this over this period. Since 2017 there have been 708 citations and 1,422 warnings issued to boaters who drive by stations, failure to buy vessel prevention pass, and transfer or possession of invasive species.

SUMMARY

The 2024 watercraft inspection season was highly successful. Even with ongoing challenges, a lot of inspections were conducted, compliance improved, a lot of mussel boats were intercepted, staff were kept safe, and many improvements were made. Overall, FWP recruited many outstanding people to serve in inspector positions across the state. Their professionalism and dedication to the AIS issue were instrumental in stations running smoothly, providing good customer service, and getting boaters on their way as quickly as possible. Many improvements have been put into place in 2024 and the program will continue to adjust and improve to make the program more effective and efficient.

Knowledge and awareness of the issues surrounding AIS continues to increase because of the outreach and education efforts across Montana. Many thanks to all our partners around the state. A special thanks to Missoula County Weed District, Confederated Salish and Kootenai Tribes, The Blackfeet Nation, Garfield County Conservation District, Beaverhead Conservation District, Glacier National Park, Whitefish Lake Institute, the City of Whitefish, McCone County Conservation District, Bighorn County Conservation District, Lincoln Conservation District, and Powder River Conservation District.