

# Oregon's Aquatic Invasive Species Prevention Program

## 2015 Program Report



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## Executive Summary

In 2009, the Oregon Legislature passed House Bill 2220 which created an Aquatic Invasive Species (AIS) Prevention Program and established a new user fee to boaters which is paid by the purchase of an “Aquatic Invasive Species Prevention Permit.” The AIS Prevention Program is co-managed by the Oregon Department of Fish and Wildlife (ODFW) and Oregon State Marine Board (OSMB). The primary objective is to keep Oregon’s waters free of new aquatic invasive species.

During 2015, ODFW stationed Watercraft Inspection Teams (WITs) along the highways in Ashland, Brookings, Lakeview, Midland and Ontario. The five WITs all together conducted 12,672 watercraft inspections and 281 watercraft decontaminations, including 12 for quagga or zebra mussels (*Dreissena rostriformis bugensis*, *D. polymorpha*). Overall, 72% of vehicles towing watercraft stopped at the inspection stations, an increase of 3% from 2014. Oregon Department of Fish and Wildlife and OSMB also participated in public events and sponsored 37 trainings or presentations for fishing groups, agency staff, concerned citizens and school groups. Since 2009, over 1,000 Oregonians have attended watercraft inspection training classes.

In 2015, revenue generated from AIS Prevention Permit totaled \$796,753. The AIS Prevention Program funded three full-time positions (one OSMB AIS coordinator and two ODFW AIS technicians), and 14 seasonal or part-time funded positions (12 ODFW AIS technicians, ODFW Invasive Species Coordinator and OSMB accounting technician). These funds also supported law enforcement activities such as checking that boaters are carrying the AIS Prevention Permit and enforcing mandatory stops at the five watercraft inspection stations. State, county and local law enforcement agents issued 810 warnings and 356 citations related to failure to purchase/carry an AIS Prevention Permit and 2 warnings and 39 citations for failure to stop at a watercraft inspection station.

## Background

In 2001, to respond to the growing threat of invasive species to the state, the Oregon Invasive Species Council (OISC) was created by the Oregon State Legislature. The OISC recommended that ODFW, OSMB, Oregon Department of Agriculture (ODA), and Portland State University (PSU) jointly lead the development of a state plan to address the growing threat of quagga mussels, which were discovered in Lake Mead, Nevada in 2007. As a result, the 2009 Oregon Legislature approved an AIS Prevention Program. A new user fee (AIS Prevention Permit) on most watercraft was established to implement the AIS Prevention Program. Funds generated from the AIS Prevention Permit are used for: ODFW and OSMB permanent staff; watercraft inspectors and supplies, outreach and education and other AIS related activities. Watercraft inspections began in spring of 2010 and in 2011, with the passage of House Bill 3399, roadside watercraft inspections became mandatory. For more AIS Prevention Program information refer to: [www.odfw.com](http://www.odfw.com) or [www.oregon.gov/OSMB](http://www.oregon.gov/OSMB).

Quagga and zebra mussels, along with hydrilla (*Hydrilla verticillata*) and Asian carp (bighead and silver) (*Hypophthalmichthys nobilis* and *H. molitrix*) are among the top species of concern to keep out of Oregon. Quagga and zebra mussels and aquatic vegetation can be easily translocated by trailered watercraft. Quagga and zebra mussel populations have spread rapidly in United States (Figure 1) due their adaptability and lack of natural predators. Species like Eurasian

watermilfoil (*Myriophyllum spicatum*) and New Zealand mudsnails (*Potamopyrgus antipodarum*) already contaminate some Oregon waterbodies. For more information about these and other aquatic invasive species please visit: [USGS Non-Indigenous Aquatic Species](https://www.usgs.gov/nonindigenous-aquatic-species).

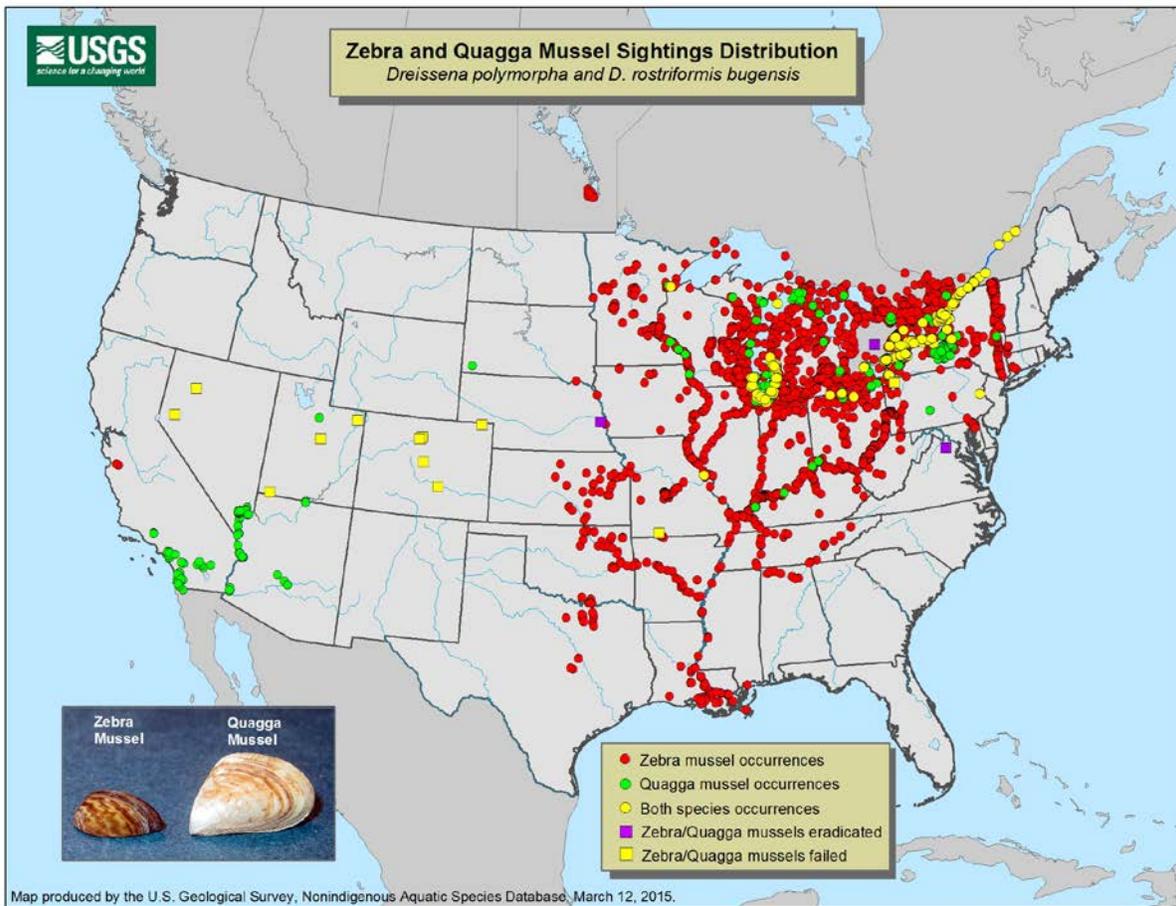


FIGURE 1. Current zebra and quagga mussel distribution map (U.S. Geological Survey Nonindigenous Species Database March 12, 2015).

## Program Goal

The goal of the AIS Prevention Program is: “To protect Oregon against the introduction of new AIS and limit the spread of existing AIS.” One way this is accomplished is through watercraft inspection stations and working closely with educational institutions, private citizens and law enforcement to curtail unlawful introductions of invasive species.

## Agency Roles

### Oregon Department of Fish and Wildlife

Oregon Department of Fish and Wildlife has the primary responsibility of operating watercraft inspection stations. Watercraft inspection stations are staffed by trained ODFW employees who have completed the 100<sup>th</sup> Meridian Initiative Level 1 – Watercraft Inspection Training and an in-

house Level II Decontamination Training. Twelve technicians were divided between five stations (TABLE 1).

TABLE 1. Description of watercraft inspection station locations, number of watercraft inspectors and days and dates of operation, all stations operated by the Oregon Department of Fish and Wildlife, 2015.

Station	Location Description	Number of Inspectors	Opening Date	Number of Days/Week
Ashland	I-5, Port-of-Entry	4	3/2/15	5 <sup>a</sup>
Brookings	Highway 101, Port-of-Entry	2	5/11/15	5
Lakeview	Highway 395, California/Oregon border	1	7/29/15	5
Midland	Highway 97, Midland Rest Area	2	5/11/15	5 <sup>b</sup>
Ontario	I-84, Ontario Rest Area	4	3/11/15	7

<sup>a</sup> Ashland station opened 7 days/week 4/16/15

<sup>b</sup> Midland station opened 7 days/week 7/26/15

The Invasive Species Coordinator and AIS Senior Technician are stationed in Salem. Both positions have a variety of duties, including:

- Training Watercraft Inspection Teams on procedures and protocols (watercraft inspection and decontamination, data collection and entry and interpersonal communications)
- Providing AIS training opportunities to other agencies staff, school and fishing groups, volunteers and concerned citizens
- Developing and disseminating invasive species educational material (fact sheets, brochures, risk assessments, etc.)
- Providing assistance during eradication efforts
- Conducting watercraft inspections and decontaminations
- Responding to public inquiries and sightings
- Surveying and collecting aquatic invasive species
- Staffing booths at public events
- Serving as members of:
  - [Malheur Aquatic Health Workgroup](#), [100th Meridian Columbia River Basin Team](#), [Oregon Invasive Species Council](#) , [Western Regional Panel](#), [Ballast Water Task Force](#), [Building a Consensus in the West](#)

### Oregon State Marine Board

Oregon State Marine Board has the lead role to implement the AIS Permit Program for all watercraft. This permit program is the funding mechanism that supports all of the activities outlined in this annual report. All permit revenues are deposited into the AIS Prevention Fund. Education and Outreach efforts along with coordination with law enforcement agencies are among the top priorities for OSMB to accomplish.

### Public Presentations and Events

Education and outreach is a key component of the AIS Prevention Program. The OSMB and ODFW provide printed materials and interact with the public at inspection stations, teach *Level I – Watercraft Inspection* and invasive species awareness classes, and attend public meetings and

special events to talk about the program. These contacts provided face-to-face opportunities to explain the program and its environmental benefits. In 2015, ODFW and OSMB provided information about the AIS Prevention Program to a variety of Oregonians, including:

- Canyonville Fish Release and Education days
- Chapman Hill, Hedrick, Mapleton, Reedsport, Ruch, Siuslaw, and Thurston schools
- Silverton Outdoor School
- Mt Hood Community College
- Portland Boat Show
- Central Oregon and Pacific Northwest Sportsman's shows
- Portland Seaport Celebration
- Oregon State Fair and Malheur County Fair
- Fall Fishing Expo
- Emerald Point Senior Center
- Longview Hills Fishing Club
- Bureau of Land Management, Oregon State Police, other ODFW programs, US Forest Service
- American Fisheries Society and Oregon Ocean Paddling Society annual meetings
- Marine Law Enforcement Training Academy
- Oregon Clean Marina Workshop

## **Watercraft Inspection Courses**

### ***Level I – Watercraft Inspection Training***

Since 2009, ODFW, OSMB and PSU have been collaborating to offer a special training course to the public and government agencies upon request. *Level I – Watercraft Inspection Training* is a half day class based on the 100<sup>th</sup> Meridian Initiative curriculum. The Level I instructors teach basic AIS biology and behavior and Oregon laws and regulations associated with the AIS Prevention Program. Upon completion of this course students are certified to perform watercraft inspections. In 2015, over 100 individuals received this training. All ODFW and OSMB Level I instructors have completed the 100<sup>th</sup> Meridian Initiative *Level 2 – Watercraft Inspection Training*.

### ***Level II – Watercraft Inspection Training***

The Level II training is an advanced watercraft inspection and decontamination course. The two-day course provides hands-on training where students learn to recognize watercraft contaminated with invasive mussels, how to operate a decontamination unit with water heated in excess of 140° F and the proper method for decontaminating watercraft. Training occurs at lakes Mead and Powell due to their infestation with quagga mussels, which provides students the opportunity to see first-hand the destructive nature and environmental consequences of quagga mussels. For more information regarding this class please visit the Western AIS website: <http://www.westernais.org/upcoming-classes> .

## Oregon Department of Fish Wildlife Watercraft Inspection Team Activity

### Summary of Inspections

In 2015, ODFW completed 12,953 watercraft inspections. The majority (99%) of inspections occurred at roadside inspection stations. Watercraft inspected included boats from nearly every US state, Mexico, Alberta, British Columbia, Manitoba, Ontario, Saskatchewan and New Zealand (ODFW, unpublished data). In addition to established inspection stations, AIS Salem staff completed three special inspections at alternative sites.



FIGURE 2. Oregon Department of Fish and Wildlife aquatic invasive species technicians performing an inspection at the Ashland watercraft inspection station, July 2015.

In 2011, House Bill 3399 was passed requiring all persons transporting watercraft to stop at a posted AIS watercraft inspection station. However, watercraft inspection compliance continues to be a concern due to failure to stop at watercraft inspection stations. To determine watercraft inspection compliance, AIS technicians recorded the number of watercraft that failed to stop at an inspection station versus the number of inspections. Data collected: time of day, watercraft type (motorized or non-motorized) and number of watercraft. The statewide compliance rate was 72%, which is a 3% increase from 2014, Brookings had the lowest compliance rate at 59% and Lakeview had the highest 76% (TABLE 2).

TABLE 2. Number of watercraft inspections (both clean and contaminated) and boater inspection compliance rate, Oregon Department of Fish and Wildlife 2015.

Watercraft inspection station	Number of clean inspections	Number of contaminated inspections	Compliance rate (%)
Ashland	5,051	110	75
Brookings	945	37	59
Lakeview	100	0	76
Midland	963	3	72
Ontario	5,612	129	75
Salem	1	2	N/A

### Summary of Decontaminations

Two hundred and eighty-one of the 12,953 watercraft inspected were contaminated with aquatic invasive species; 207 with aquatic vegetation, 33 with marine organisms and 29 with other

freshwater organisms. The remaining 12 watercraft were contaminated with either quagga or zebra mussels originating from Arizona, Louisiana, Michigan, Nevada, Ohio, Ontario, Pennsylvania, Utah and Wisconsin. The presence of zebra or quagga mussels required hot water high pressure decontamination, which was performed on site.



FIGURE 3. Oregon Department of Fish and Wildlife Ontario watercraft inspection station preparing to perform a decontamination for quagga mussels, boat had been in Lake Havasu, AZ and was destined for the upper Columbia River, April 30<sup>th</sup> 2015.

## Oregon State Marine Board

### Aquatic Invasive Species Prevention Permit

Operators of motorized watercraft (both residents and non-residents) along with non-motorized watercraft are required to purchase and carry an AIS Prevention Permit when on Oregon waters. Oregon registered motorized watercraft owners (regardless of length) pay a \$5 surcharge every two years when they renew their biennial registration. Current registration decals serve as proof of payment into the AIS Prevention Program. Non-motorized watercraft 10 feet in length or longer are required to purchase a permit and carry it onboard while boating (\$5 per year). Non-motorized permits are transferable between watercraft within this category and out-of-state visitors using non-motorized watercraft pay the same permit fee as Oregon residents. Out-of-State motorized watercraft owners are the third category of boats required to purchase a permit (\$20 annually). These permits purchased by non-resident boaters (motorized) are also transferable to use within their respective category. Additionally, businesses that rent watercraft (liveries) or river guides using non-motorized watercraft are offered permits at a discounted price through the OSMB; price varies with the number of watercraft owned.

Aquatic Invasive Species Prevention Permits can be purchased from OSMB and ODFW offices, retailers selling hunting/fishing licenses and approved boating retailers. Tyvek<sup>®</sup> and out-of-state permits are available for purchase at OSMB Headquarters, internet and approved retailers (\$5 for one year or \$10 for two years). A list of retailers can be found here:

<http://www.oregon.gov/OSMB/boater-info/Pages/Aquatic-Invasive-Species-Program-Frequently-Asked-Questions.aspx>

## Education and Outreach

Outreach to the boating public remains a high priority for the AIS Prevention Program. Printed materials including brochures, posters and rack cards have been distributed throughout Oregon. Partnerships continue with other natural resource agencies to ensure when staff members (i.e. park rangers, river rangers, biologists, researchers) are interacting with the public they not only have an understanding of AIS issues, but they have educational materials to distribute. In an effort to keep the public informed, OSMB and ODFW wrote three press releases. Additionally, five radio interviews were conducted by ODFW.

## Law Enforcement Activities

One of the main avenues to interact with boaters when they are recreating is through the contacts made by law enforcement officers (County Marine Patrol Deputies and the Oregon State Police Fish and Wildlife Troopers). When these officers speak to boaters out on the water or at boat access sites, they are able to enforce boating laws and act in an education and outreach capacity. They commonly answer questions and explain the AIS program details on a daily basis. The OSMB provides yearly trainings to these officers and program updates as they occur so they have the most up-to-date information to share with boaters. During 2015 officers documented contacts with 47,781 boaters.

Oregon State Marine Board continues to encourage law enforcement officers to focus on education and issue warnings to boaters that don't have an AIS Prevention Permit rather than issuing citations. These efforts resulted in a total of 810 warnings given along with 356 citations in 2015. Reports from officers in the field have indicated that while permit compliance has generally risen each year since the program started, it is believed that there are still a fair number of boaters that have not purchased the required permits. Therefore, compliance checks will continue to be a priority again during 2016.

## Aquatic Invasive Species Research Projects

To further the goal of the AIS Program it's important to monitor Oregon waterbodies for the presence or absence of invasive species and also to support university led research to better understand the AIS dynamics within the environment. In 2015 this was accomplished by working with PSU Center for Lakes and Reservoirs to support two projects. The first is water monitoring efforts for zebra and quagga mussels in high risk Oregon waterbodies. The second program is the continued implementation of the Oregon Lake Watch Program. The Lake Watch Program is one that enlists volunteers to "adopt" a lake and monitor it a couple times per year for the presence/absence of targeted AIS. PSU offers technical field training for the volunteers and provides them with all the necessary field equipment. Additionally, PSU collects and manages the data that is submitted to track locations where AIS of concern are found.

## Coastal Tunicate Management Project

In 2015, the effort was continued to monitor the invasive colonial tunicate (*Didemnum vexillum*) at its two known populations in Oregon: one in Charleston marina and the other in Winchester Bay in an area commonly referred to as the "Triangle." Scientific divers completed survey work in 2015 at both locations and found that the populations are remaining static overall at the triangle locations and have decreased within the Charleston marina. In 2015, an underwater suction dredge was purchased that will be used during 2016 at the triangle location to start the

process of removing the tunicates from where they are growing. Funding for these efforts came from both the AIS Fund and the Oregon Invasive Species Council's Control Account.

### Program Financial Statement

The funds collected from the sale of permits are deposited directly into the AIS Prevention Program Fund established in the State Treasury, which is separate and distinct from the General Fund. These funds can only be used for activities directly related to the program that are outlined within this report. Oregon State Marine Board administers this fund and distributes monies to ODFW, law enforcement agencies and other partners via intergovernmental agreements and contracts for services.

During the 2015 fiscal year (July 2014-June 2015) the revenue collected from permit sales was \$796,753; a slight increase from 2014 fiscal year. The breakdown of permits sold in the three boat permit categories is as follows: 77,766 permits were purchased by Oregon motorboat owners, 4,979 permits purchased by Out-of-State motorboat owners, 52,271 permits were purchased by non-motorized boat owners (this number includes both 1 and 2 year permits) and 2,300 permits purchased by Oregon liveries and guides. Currently the program is operating at its maximum activity level based on annual revenues. There is a desire by many of the program partners to expand prevention efforts (i.e. operate inspection stations for more months during the year and for longer hours), but that would require additional revenue coming into the program.

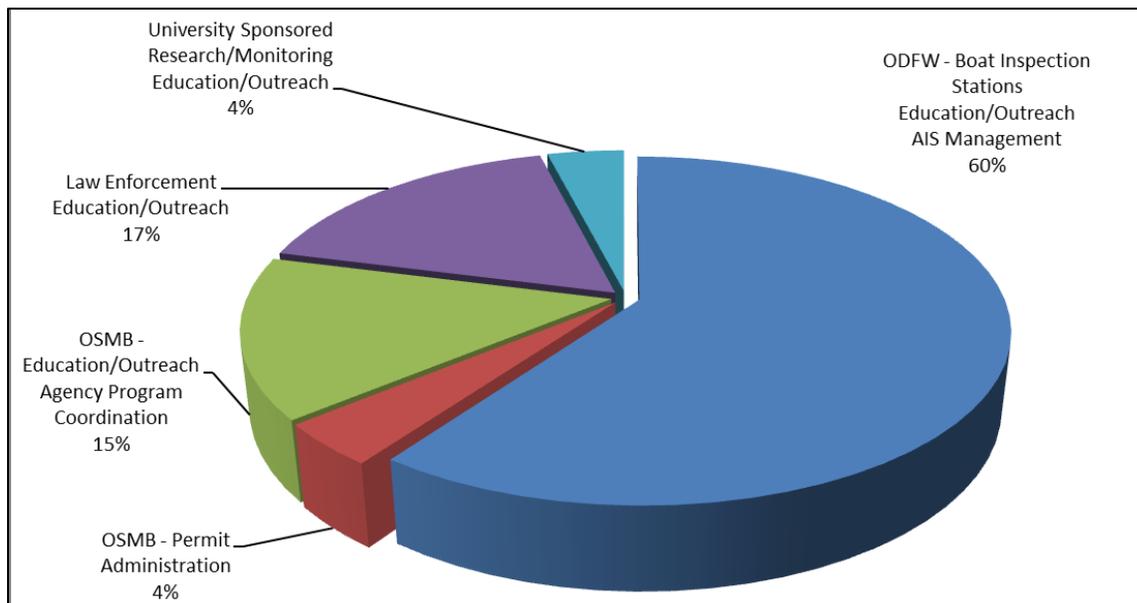


FIGURE 4. Allocation of Aquatic Invasive Species Prevention Program funds for fiscal year 2015, Oregon State Marine Board (OSMB) and Oregon Department of Fish & Wildlife (ODFW).

### Program changes for 2016

As more funds and positions become available ODFW will continue to explore the placement of a new inspection station located near Basque on Oregon Highway 95.

## **Acknowledgements**

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The Oregon State Marine Board would like to thank the OISC and its members for their continued support and guidance for implementing this AIS Prevention Program.

## **Program Statutes and Rules**

OSMB and ODFW program statutes and rules related to the AIS Prevention Program can be found here:

[OSMB ORS 830.560 & 830.999](#)

[OSMB OARs 250-010-0650 thru 250-010-0660](#)

[ODFW OARs relating to invasive species](#)