

Oregon's Aquatic Invasive Species Prevention Program



2011 Program Report



Prepared by:

Martyne J Reesman – Oregon Department of Fish & Wildlife

Rick Boatner – Oregon Department of Fish & Wildlife

Glenn Dolphin – Oregon Marine Board

February 2011

Table of Contents

Executive Summary	1
Program Background	1
Program Goal	2
Agency Roles	3
Oregon Department of Fish and Wildlife	3
Oregon State Marine Board	3
Public Presentations and Events	3
Watercraft Inspection Trainings	4
Level 1 – Watercraft Inspection Training	4
Level 2 – Watercraft Inspection Training	4
ODFW Watercraft Inspection Team Activity	5
Roadside Inspection Sites	5
Other Inspection Sites	5
Summary of Inspections	6
Decontamination Equipment	8
Oregon State Marine Board	9
Aquatic Invasive Species Prevention Permit	9
Education and Outreach	9
Permanent Signage.....	9
Watercraft Inspection Station Signage.....	10
Law Enforcement Activities	10
Program Financial Statement.....	11
Funded Program Accomplishments.....	11
Program Staffing.....	11
Oregon Department of Fish and Wildlife Watercraft Inspection program	11
Oregon State Marine Board Education and Outreach.....	11
Program changes for 2012	12
Acknowledgements.....	12
Program Statutes and Rules	12

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 “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 invasive species. During 2011; ODFW had four Watercraft Inspection Teams (Central Point, Clackamas, La Grande and Madras); two technicians per team; conducted 3,614 watercraft inspections; 78 watercraft decontaminations, 5 of which were for quagga or zebra mussels. The ODFW and OSMB participated in 18 public events (e.g. Blackbird Trout Derby, Chief Joseph Days, Oregon State Fair, Pacific Northwest Sportsman’s Show, Portland Boat Show, Race to the River and Youth Outdoor Day at EE Wilson and Ladd Marsh) and sponsored 29 trainings or presentations for fishing groups, agency staff, concerned citizens and school groups; 589 Oregonians have attended watercraft inspection training since 2009.

To implement the AIS Prevention Program a new user fee (AIS Prevention Permit, \$5) on watercraft was established. Revenue generated from AIS Prevention Permit sales were \$939,282 in 2011. The AIS Prevention Program funds three full-time positions (one ODFW Invasive Species coordinator, one OSMB AIS coordinator and one ODFW AIS technician) and nine seasonal or part-time positions (eight ODFW AIS technicians and one OSMB accounting technician). State, county and local law enforcement issued 641 warnings and 200 citations related to AIS violations.

Program Background

In 2001, to respond to the growing threat of invasive species to the state, the Oregon Invasive Species Council (Council) was created by the Oregon State Legislature. The mission of the Council is to conduct a coordinated and comprehensive effort to keep invasive species out of Oregon and to eliminate, reduce, or mitigate the impacts of invasive species that are already established. In 2001, Portland State University (PSU) developed an Oregon Aquatic Nuisance Species Management Plan, which was the first step to outline activities in the state that address the impacts of AIS.

By 2007, an extremely destructive fresh water invasive species called the quagga mussel (*Dreissena bugensis*), was detected in Lake Mead, Nevada. As a result of this infestation many western states implemented programs to protect water bodies against the spread of this highly destructive species. Most of these efforts focused on establishing recreational watercraft inspection stations and implementing early detection and rapid response strategies.

The Council requested that the ODFW, OSMB, the Oregon Department of Agriculture (ODA), and PSU jointly lead the development of a state plan to address the growing threat and spread of the quagga mussel. As a result, the 2009 Oregon Legislature approved an AIS Prevention

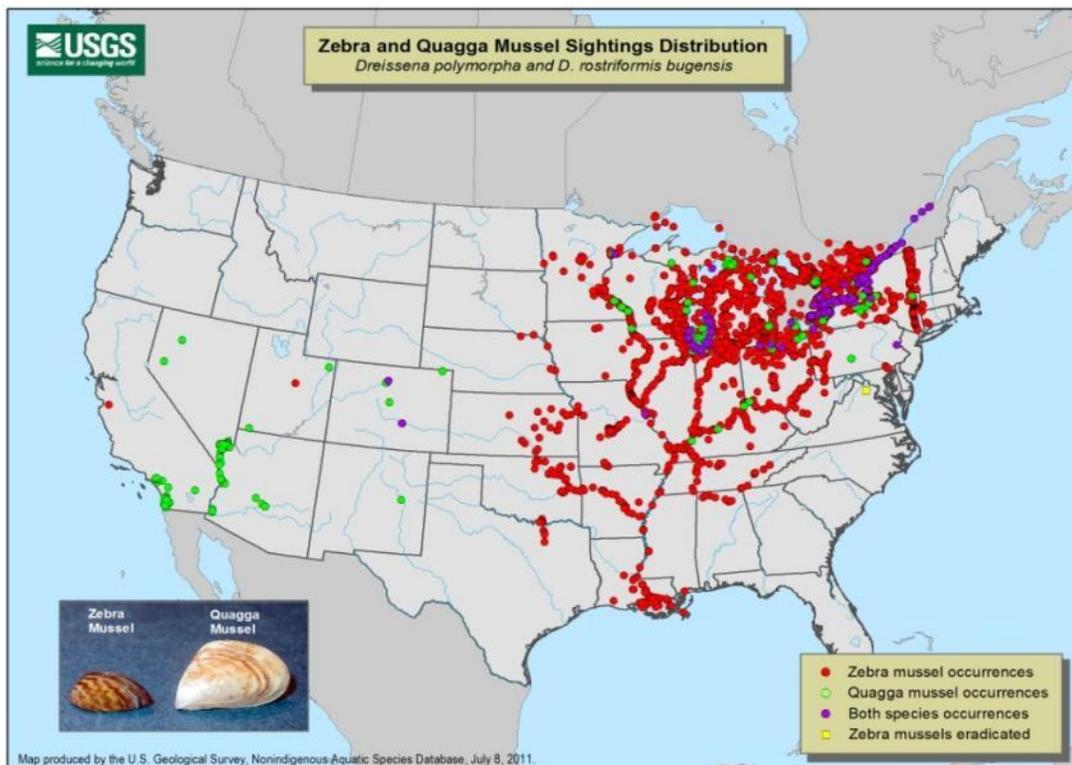
Program modeled after a similar program in Idaho. To implement the AIS Prevention Program a new user fee on watercraft (both motorized and non-motorized) was established. This new dedicated program would fund mobile watercraft inspection teams, public education and outreach efforts and implement other related activities to protect Oregon against AIS.

Two program changes were proposed to the 2011 Oregon Legislature in the form of House Bill's 3399 and 3121. House Bill 3399 requires all persons transporting watercraft submit to an AIS watercraft inspection if an inspection station is observed and open. House Bill 3121 lowered the fines associated with not carrying an AIS Prevention Permit aboard a watercraft when on Oregon waters (\$30 for non-motorized and \$50 for motorized watercraft). Both consequently were approved and signed into law by the Governor.

Program Goal

The goal of the AIS Prevention Program is: *“To protect Oregon against the introduction and spread of AIS”*. Quagga and zebra mussels (*Dreissena polymorpha*) (Figure 1), along with hydrilla (*Hydrilla verticillata*) and Asian carp (Bighead and Silver) (*Aristichthys nobilis* and *Hypophthalmichthys molitrix*) are among the top species of concern to keep out of the state. Species like Eurasian watermilfoil (*Myriophyllum spicatum*) and New Zealand mudsnails (*Potamopyrgus antipodarum*) already contaminate some Oregon waterbodies and need to be contained at current locations.

Figure 1. Zebra and quagga mussel national distribution map, July 2011.



Agency Roles

Oregon Department of Fish and Wildlife

The ODFW has the primary responsibility to operate the watercraft inspection stations. Watercraft inspection stations are staffed by trained ODFW employees that have the necessary skills and equipment to inspect and decontaminate watercraft. Each technician has completed the 100th Meridian Initiative Level 1 – Watercraft Inspection Training. Technicians were divided into four teams (two people/team) stationed in Central Point, Clackamas, La Grande and Madras. The Central Point watercraft inspection team started inspections on May 11th, and the remaining three teams began July 7th. Inspection stations were typically open Wednesday through Saturday.

The invasive species coordinator and AIS technician are stationed in Salem. Both positions have a variety of duties; working closely with the Watercraft Inspection Teams; developing and disseminating invasive species educational material (fact sheets, brochures, risk assessments and PowerPoint presentations) and participating in AIS education and outreach events.

Oregon State Marine Board

The OSMB 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 the Marine Board to accomplish.

Operators of motorized watercraft (regardless of length) and non-motorized watercraft 10 feet in length or longer, are required to purchase and carry an AIS Prevention Permit. Oregon registered watercraft owners pay a \$5 surcharge every two years when they pay their biennial registration. Non-resident motorized watercraft operators are required to purchase a \$20 annual permit. 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. These 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. These permits purchased by non-resident boaters (motorized) are also transferable to use within their respective category.

Public Presentations and Events

Education and outreach is a key component of the AIS Prevention Program. This is achieved by providing printed materials and interacting with the public at inspection stations, attending boating events, teaching watercraft inspection and invasive species workshops, or attending public meetings to speak about the program. In 2011, OSMB and ODFW were invited to give AIS presentations to a variety of groups (including public schools, government agencies, fishing

groups, outdoor enthusiasts, etc) throughout the state. Additionally, OSMB and ODFW’s presence was requested at 18 public events (e.g. Blackbird Trout Derby, Chief Joseph Days, Columbia Slough Regatta, ODFW’s sponsored Youth Outdoor Day at EE Wilson and Ladd Marsh, Oregon State Fair, Pacific Northwest Sportsman’s Show, Portland Boat Show, Race to the River, and WATER!). These contacts provided face-to-face opportunities to explain the program and its environmental benefits.

Watercraft Inspection Trainings

Level 1 – 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. The “Level 1 Watercraft Inspection Training” is a 3.5 hour class teaching students about the biology and behavior of AIS of concern to Oregon (and those already present in the state), the specifics of the AIS permit program and how to perform a watercraft inspection. Students are certified to perform watercraft inspections upon completion of this course. This Level 1 course has been taught annually over the last four years. In 2011 over 200 individuals received this training (Table 1). Additionally, ODFW, OSMB, and PSU have been using existing resources to train and educate people about AIS.

Level 2 – Watercraft Inspection Training

To teach a Level 1 Watercraft Inspection Training course all training instructors have completed a “Level 2 Watercraft Inspection Training” class held at Lake Mead, Nevada. The Level 2 training is an advanced watercraft inspection and decontamination course. The two-day course provides hands-on training; students learn how to recognize watercraft contaminated with quagga 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 Lake Mead because it is infested with quagga mussels. This gives students the ability to see first-hand the destructive nature of quagga mussels.

Table 1. Summary of Level 1 Watercraft Inspection Trainings provided by the Oregon State Marine Board and Oregon Department of Fish and Wildlife, 2009 - 2011.

<u>Year</u>	<u>Number of Trainings</u>	<u>Number of Students</u>
2009	9	149
2010	11	233
2011	9	207
Total	29	589

ODFW Watercraft Inspection Team Activity

Roadside Inspection Sites

Watercraft inspection teams conducted 1,466 roadside inspections (Table 2) at: Baker Valley Rest Area, Chemult Rest Area, Interstate 5 Port of Entry at Ashland, and Interstate 5 at Wilsonville Rest Area. Additional roadside inspections occurred at Highway 58/Century Drive (near Bend, OR), Highway 101 Port of Entry at Brookings, LaPine Sheriff's Station and Interstate 5 at Santiam Rest Area.

To determine compliance rates, AIS technicians recorded the number of watercraft that failed to stop at an inspection station. On days when observations were possible, 539 watercraft inspections were performed with 533 watercraft by-passing inspection sites (50% compliance rate is up from the 23% observed in 2010). In August 2011, House Bill 3399 (mandatory watercraft inspections) was passed increasing compliance rates from ~42% to ~72% at the Interstate 5 Port of Entry inspection station near Ashland.

Table 2. Number of watercraft inspections and roadside station locations operated by the Oregon Department of Fish and Wildlife in 2011.

<u>Location</u>	<u>Number</u>	<u>County</u>
Baker Valley Rest Area	285	Baker
Chemult Rest Area	247	Klamath
Highway 58/Century Drive	11	Klamath
Highway 101 Port of Entry, Brookings	9	Curry
Interstate 5 Port of Entry, Ashland	653	Jackson
La Pine Sheriff's station	12	Deschutes
Santiam Rest Area	35	Marion
Wilsonville Rest Area	214	Clackamas
Total	1,466	

Other Inspection Sites

In addition to established inspection stations, Watercraft Inspection Teams completed 2,148 watercraft inspections at 28 boat ramps associated with 23 waterbodies (Table 3) throughout Oregon. Additionally, teams inspected watercraft at Bend's "Race for the River" event and the "Columbia Slough Regatta". Twelve inspections were also conducted at the request of watercraft owners at their personal residence or at a designated location.

Table 3. Number of watercraft inspections and location operated by the Oregon Department of Fish and Wildlife in 2011.

<u>Location</u>	<u>Number of inspections</u>	<u>County</u>
Brownlee Reservoir	26	Baker
Clackamas River, Clackamette Park	9	Clackamas
Columbia River, Chinook Landing	228	Multnomah
Columbia River, Umatilla Marina	18	Umatilla
Columbia Slough Regatta, Portland	29	Multnomah
Crane Prairie Reservoir	16	Deschutes
Detroit Lake	225	Linn
Diamond Lake	101	Douglas
Emigrant Lake	77	Jackson
Haystack Reservoir	5	Jefferson
Henry Hagg Lake	162	Washington
Howard Prairie Lake	65	Jackson
Hyatt Reservoir	18	Jackson
John Day River, Le Page Park	13	Sherman
Lake Billy Chinook	433	Jefferson
Lake Simtus	8	Jefferson
Lost Creek Lake	222	Jackson
McKay Reservoir	7	Umatilla
Owner Requested Inspection	12	Various
Paulina Lake	9	Deschutes
Prineville Reservoir	103	Crook
Race for the River, Bend	21	Deschutes
Rogue River	6	Jackson
Thief Valley Reservoir	8	Baker
Wallowa Lake	179	Wallowa
Willamette River, Cathedral Park	26	Multnomah
Willamette River, Scappoose Bay	83	Columbia
Willamette River, Willamette Park	39	Multnomah
Total	2,148	

Summary of Inspections

Oregon Department of Fish and Wildlife completed 3,614 watercraft inspections, 77% were Oregon watercraft, 8% Washington, 8% California, 3% Idaho and the remaining 4% included 24 other states and British Columbia. Watercrafts from 26 different states were inspected, 6 of which had quagga or zebra mussels attached (Table 4). Seventy-eight decontaminations were performed:

- Five vessels were decontaminated by ODFW staff (hot water/high pressure), due to contamination by quagga or zebra mussels.
 - Two boats were intercepted at the Interstate 5 Port of Entry at Ashland

- One boat was intercepted at the Baker Valley Rest Area
- The two remaining boats were intercepted-in Hood River and Umatilla-via notification from the Idaho Department of Agriculture
- One vessel, a 60’ sailboat, contaminated with zebra mussels was referred to Washington Department Fish and Wildlife for decontamination, due to the large size of the vessel.
- Seventy-three “simple” decontaminations occurred; removal of Eurasian watermilfoil and other plant material accounted for 76% of the “simple” decontaminations.

Table 4. Number of watercraft inspected by state of origin and invasive mussel presence by the Oregon Department of Fish and Wildlife, 2011.

State or Province	Number of watercraft inspections	Zebra or quagga mussels present in home state.
Alaska	1	none
Arizona	24	quagga
British Columbia	6	none
California	302	both
Colorado	9	both
Florida	1	none
Georgia	1	zebra
Hawaii	3	none
Idaho	112	none
Massachusetts	2	zebra
Michigan	3	both
Missouri	2	both
Montana	6	none
Nevada	27	quagga
New Mexico	4	zebra
North Dakota	3	zebra
New York	1	both
Oklahoma	1	zebra
Oregon	2,789	none
Tennessee	1	zebra
Texas	6	zebra
Unknown	5	unknown
Utah	7	both
Virginia	1	none
Washington	293	none
Wisconsin	2	both
Wyoming	2	none
Total	3,614	

Decontamination Equipment

Six self-contained mobile decontamination units are operated by trained ODFW staff. Each unit contains a water heater (capable of temperatures > 140°F), generator and a pressure washer (3,000psi). The decontamination units meet or exceed the standards for watercraft decontamination of quagga and zebra mussels according to the 100th Meridian Initiative. Five of the six decontamination trailers have a 180 gallon water tank and the sixth trailer has two 250 gallon water tanks. Additionally, each trailer contains a catch basin tarp (10'x 26'x 2'' with round foam walls) which collects water during a watercraft decontamination and a siphon pump to recapture the water for proper disinfection and disposal.



Bethany Parker (pictured above), ODFW AIS Technician, is decontaminating a Nevada boat due to quagga mussel infestation, Baker Valley Inspection Station (July 27, 2011). Pictured below are ODFW's decontamination units.

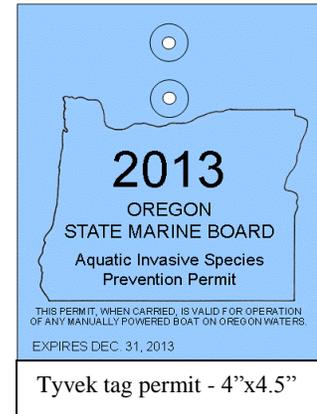


Oregon State Marine Board

Aquatic Invasive Species Prevention Permit

Aquatic Invasives Species Prevention Permits can be purchased from retailers that sell Oregon hunting or fishing licenses, including the internet. The majority of retailers have a \$2 surcharge, added to price of the permit. Permit fees are variable; Oregon residents and all non-motorized watercraft permit fees are \$5; non-resident motorized watercraft permits cost \$20. 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.

In 2011, OSMB began selling Tyvek permits through the mail and at the OSMB office in Salem (\$5 for one year or \$10 for two years). Additionally, boaters can purchase the Tyvek permits from an approved retailer (e.g. Astoria Scuba and Kayak, Peak Sports, REI, etc) with the \$2 agent fee added.



Education and Outreach

Outreach to the boating public remains a high priority for the program. Printed materials including brochures, posters, rack cards, and boat ramp signs were distributed throughout Oregon. Furthermore, partnerships with other natural resource agencies were established to ensure when staff (i.e. park rangers, river rangers, biologists, researchers, etc.) is interacting with the public they not only have an understanding of AIS issues, but they have educational materials to distribute. Additionally, to keep the public informed OSMB and ODFW wrote nine press releases. Moreover, there were 26 AIS Prevention Program articles written in 14 different Oregon newspapers.

Permanent Signage

In a continuing partnership with Oregon Department of Transportation (ODOT), OSMB coordinates the installation of informational signs on highways at border locations. These signs inform the public of the requirement to purchase an AIS Prevention Permit. A total of 20 locations were identified for installation statewide. During 2010, ten of these signs were installed; in 2011 four signs were installed with the remaining six to be installed before June 2012.



Watercraft Inspection Station Signage



Roadside inspection sites were identified by three 48”x48” orange reflective diamond shape signs with 6-8 inch lettering. Signs were placed along the highway in succession at 2,640ft (.5 mi), 1,500ft (.28 mi.) and 1000ft (.18 mi.) before an off-ramp. The first sign read “Boat Inspection Ahead”, second “Inspection Required for All Watercraft” (white reflective rectangle with black lettering 5’ x 4’), third “Boat Inspection Next Right” and fourth “Boat Inspection” with a directional arrow pointing to the inspection station. The signs were designed and displayed in accordance with ODOT protocols.

Law Enforcement Activities

One of the main avenues to interact with boaters when they are recreating is through the contacts made by law enforcement (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 also answer questions and explain program details. 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 2011, OSMB continued to encourage law enforcement officers to focus on education and issue warnings to boaters that didn’t have an AIS Prevention Permit rather than give citations. The officers have full discretion whether or not to issue a citation, which is based on case by case circumstances. In 2011, a total of 641 warnings were given, 419 were given to operators of non-motorized watercraft. Two hundred citations were issued, 100 were issued to operators of (non-resident) motorized watercraft. Reports from officers in the field have indicated that permit compliance has risen in 2011 as compared to 2010 but it is believed that there are still a fair number of boaters that have not purchased the AIS Prevention Permit. Therefore, increased compliance checks will occur in 2012. With the new requirement that all persons transporting watercraft must stop at inspection stations law enforcement officers will be contracted to perform enforcement days at inspection stations. These enforcement activities will be focused near Oregon’s southern entry points.

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. The OSMB administers this fund and distributes monies to ODFW and law enforcement agencies under intergovernmental agreements and contracts for services.

In 2011, revenue increased to \$939,282 from \$831,499 in 2010; however within the user groups “non-motorized” and “non-resident motorized”, permit sales were lower than anticipated. The OSMB worked with law enforcement partners to establish a consistent message regarding the AIS Prevention Permit requirement, with the hope that increased awareness will lead to higher AIS Prevention Permit sales in 2012.

Funded Program Accomplishments

Program Staffing

- Oregon Department of Fish and Wildlife – One Invasive Species coordinator, eight seasonal AIS technicians and one year-round technician.
- Oregon State Marine Board – One AIS coordinator, one half-time accounting technician.

Oregon Department of Fish and Wildlife Watercraft Inspection program

- Purchased one additional decontamination unit for the South Coast with funds from Portland State University Center for Lakes and Reservoirs.
- Purchased new highway signs for mandatory inspections.
- Equipped inspectors with field and office supplies.
- Conducted 3,614 watercraft inspections statewide from 26 different states.

Oregon State Marine Board Education and Outreach

- Purchased 150 boat ramp signs for state-wide distribution.
- Designed and purchased table top display for public events.
- Designed and printed 2,000 “Oregon Park Ranger AIS Informational Guides” for distribution to state and federal recreational field staff.
- Designed and printed 25,500 AIS Tyvek Tag permits for public sale.
- Funded the installation of four highway informational signs.
- Purchased advertisement of AIS Program in Portland Boat Show materials.

Program changes for 2012

The 2012 watercraft inspections will change slightly, ODFW will relocate two of the watercraft inspection teams (Clackamas and Madras to Klamath Falls and Burns) to better protect Oregon's southern and eastern borders.

Acknowledgements

The Oregon Department of Fish and Wildlife would like to thank our seasonal AIS technicians: Sam Dodenhoff, Leah Hough, Hayden Howell III, Wil Morris, Bethany Parker, Dirk Patterson, Chris Rennaker, Mike Schmeiske and Holly Stanton. Also, thanks to Tim Bailey, Tom Murtagh, Tom Nelson and Dan Vandyke of ODFW, for taking on the task of supervising our seasonal staff. Additional thanks to ODOT and Oregon Travel Information Council for granting us permission to use their rest areas as inspection sites. We would like to especially thank Eric Rickerson and Art Martin of ODFW, for providing guidance and support throughout 2011. And finally, an extra thank you to Dan Vandyke ODFW Rogue District Fish Biologist for his many contributions.

The Oregon State Marine Board would like to thank the members of the 2011 Legislative Committees for their support in granting mandatory watercraft stopping authority at AIS check stations. A special thank you to Representative Bob Jensen for leading the effort and Department of Justice Attorney Jas Adams for his invaluable legal advice during and after the Legislative Session. In addition, thank you to the Oregon Invasive Species Council and all its members for their support during 2011.

Program Statutes and Rules

The following are the OSMB program statutes and rules:

830.560 – Launching boat with AIS prohibited

830.565 – Boat permit required

830.570 – Board to issue permit; fees

830.575 – Fees for permit

830.580 – Rules; contracting services

830.585 – AIS Prevention Fund

830.587 – Definitions

830.589 – Watercraft check stations

830.594 – Report of prevention efforts

830.998 – Penalty for failing to stop at an aquatic invasive species check station

830.999 – Penalty for transporting aquatic invasive species; exceptions; use of moneys; rules

250-010-0650 – AIS Prevention Permit – Rules

250-010-0660 – Watercraft Inspection Stations - Rules

The following are the ODFW program rules:

635-059-0000 – Purpose and General Information

635-059-0010 – AIS Reporting Information

635-059-0050 – Allowable Blind Material for boats