

Aquatic Invasive Species Funding Advisory Committee

Report & Recommendations

April 13, 2016





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VIA EMAIL ONLY

Dear Chairman Tweit and Council Members:

Attached please find the final report of the Aquatic Invasive Species Funding Advisory Committee. The Committee deliberated for about five months and provides a complete report including consensus recommendations on an overall approach to AIS program funding, use of the general fund, user fees, and public/private partnerships. The Committee did not reach consensus on shipping vessels participation in AIS program funding and a range of perspectives on that issue is discussed in the report.

On behalf of the Committee, thank you for the opportunity to deliberate and offer recommendations on this very important topic. Committee members are available to answer questions or provide additional information at your discretion.

Respectfully,

A handwritten signature in black ink that reads "Elizabeth McManus". The signature is written in a cursive, flowing style.

Elizabeth McManus
Committee Facilitator

Aquatic Invasive Species Funding Advisory Committee

My signature acknowledges my participation in the AIS FACT process and my agreement that the consensus recommendations and text on non-consensus items accurately reflects the work of the Committee. With respect to recommendations, consensus was defined by the AIS FACT as a recommendation that all participants can “live with,” even though it might not be their first—or even preferred—choice.



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Acknowledgements

The Committee acknowledges and thanks project staff for their support of this work. Raquel Crosier (RCO/WISC), Allen Pleus (WDFW), and Bill Tweit (WDFW). Facilitation and report writing services were provided by Elizabeth McManus (Ross Strategic).

Aquatic Invasive Species Funding Advisory Committee

Report & Recommendations

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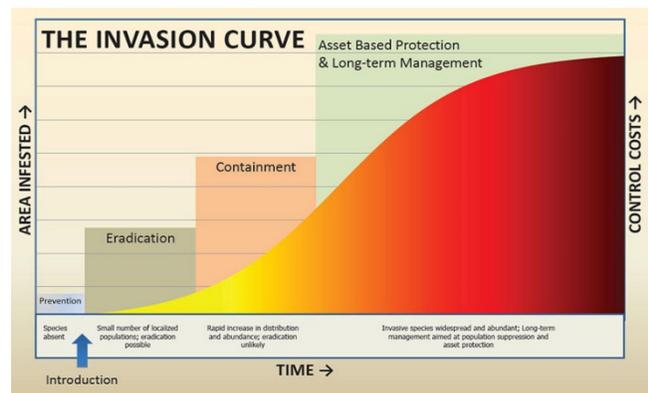
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Background

Aquatic invasive species (AIS) are a serious threat to Washington State's economy, native species and landscape. In the United States, approximately \$138 billion dollars is spent annually on non-native invasive species, of which \$7.3 billion is spent on invasive aquatic weeds, mussels, clams, and fish. Quagga and zebra mussels are the most expensive and devastating AIS to invade the United States, costing an estimated \$5 billion annually in prevention and control efforts. The Northwest is the last region in the United States that remains mussel-free. The projected cost of controlling a Zebra/Quagga mussel infestation in the Pacific Northwest if they were to become established here, for example, is \$500 million annually. The Pacific Northwest Economic Region has produced a number of reports on the current and potential future economic harm from invasive species in the northwest, for example: [Economic Impacts of Invasive Species in the Pacific Northwest Economic Region \(PENWER, January 2012\)](#) and [Advancing A Regional Defense Against Dreissenids in the Pacific Northwest \(PENWER, August 2015\)](#).

While we know that prevention is prudent and much cheaper than control, Washington's AIS program prevention, enforcement, and ballast water efforts remain significantly underfunded; with only \$760,000 in stable program funding available in fiscal year 2014, the lowest it has been since 2007. Compared to the twelve other states with AIS programs, Washington's current program ranks near the bottom, only Alaska's program is smaller. Lack of a healthy state prevention program in Washington has caused at least one local jurisdiction to initiate their own AIS program and fees – raising the potential for a patchwork of programs and boating fees within the State. These patchwork approaches can quickly proliferate, California has approximately 80 separate local AIS management fees. Washington currently has only one local AIS management program with a fee: the Lake Whatcom Management Program (administered by the City of Bellingham, Whatcom County, Lake Whatcom Water and Sewer District) charges up to \$50/year to use Lake Whatcom and Lake Samish. A comparison of the state AIS program funding levels is in Attachment 1.



AIS Cost Curve

The 2015 Legislature directed that part of the aquatic lands enhancement (ALEA) account be used to develop recommendations for future funding for the State AIS program. Recommendations must be provided to the Governor and Legislature by June 1, 2016. To fulfill this direction, WDFW, in partnership with the Washington Invasive Species Council (WISC) convened the AIS Funding Advisory Committee ("Committee") to consider potential funding mechanisms and make recommendations.

The Washington Invasive Species Council and WDFW identified potential Committee members by reaching out to individuals in the aquatic invasive species community including commercial and recreational boaters, ports, environmental interests, and other stakeholders, as well as local and tribal governments. Potential members were invited by the Invasive Species Council and WDFW. The

committee met five times between September 2015 and February 2016. The agreed upon Committee charter is in Attachment 2.

The Committee agreed that only recommendations on which they reached consensus would be forwarded to the Legislature. Consensus was defined as a recommendation that all participants can “live with,” even though it might not be their first—or even preferred—choice. In the event consensus was not reached on key issues, the Committee agreed that the range of perspectives expressed by participants would be described in their report.

The Committee used program funding need estimates prepared by WDFW. WDFW estimates a total funding need of approximately \$5.2 million/year to fund the full range of activities under the AIS program; prevention (\$1.85M), enforcement (\$1.25M), ballast water management (\$1.1M), and a new local management grant (\$1M). The Committee was not asked to evaluate the content of WDFW’s AIS program; it therefore did not engage in a detailed discussion of, nor reach any conclusions on, program scope and content, or the size of the program funding need and, absent discussion on program scope, takes no position on the state estimate because, in accordance with their Charter, they did not review it. The Committee felt strongly that in implementing AIS prevention, enforcement, ballast water, and local management grant activities every effort should be made to ensure efficiency and leverage state resources for greatest benefit. Additional information on WDFW’s estimates of program funding need are in Attachment 3.

Principles

The Committee started its work by developing a number of principles to guide our deliberations over potential funding options. No single principle represented an absolute “go or no go” decision for any individual funding mechanism. Rather funding mechanisms that better conformed to the principles overall were more likely to move forward in Committee deliberations than those which did not. See, below, the committee’s eight guiding principles.

- **Specific.** Specific in terms of amount, timing (e.g., duration), activities to fund, and performance measures. Performance based. Scalable around need and effectiveness.
- **Transparent.** Providing a clear nexus (or “line of sight”) between the funding source and the risk/activity/funding need. Distributed so one entity doesn’t bear a disproportionate burden.
- **Efficient.** Not duplicating Federal work, leveraging existing programs and work as much as possible. Favorable benefit-cost profile.
- **Stable, reliable.** Not swinging dramatically in amount over time.
- **Sufficient.** Adequate to fund the program need; not single species focused.
- **Equitable.** Costs are shared between potential “vectors” or risks, program beneficiaries, and the public. Recognizes current program funding sources/contributors.
- **Minimizes adverse consequences.** Doesn’t shift economic activity (e.g., to other ports); doesn’t deter access to recreation.
- **Implementable.** Easy to administer and easy to comply with. Uniform across jurisdictions.

Recommendations

The Committee began with an extensive list of program funding options and approaches prepared by WDFW. They added to and refined this list, and eliminated from further consideration the majority of the options. The committee then began to focus on the remaining options and developed their consensus recommendations.

The Committee makes four consensus recommendations. As described earlier in this report, consensus is defined as a recommendation that all participants can “live with,” even though it might not be their first—or even preferred—choice. The committee also deliberated, but did not reach consensus on shipping vessels’ participation in AIS funding, which is described in Section 4.

1. Shared Investment. State funding for AIS programs should be made up of a combination of state general funds; fee-based “user” funding; and private/public partnerships. Users in this case are comprised of sectors that may form pathways which pose a higher risk of introduction or spread of AIS. Public/private partnerships in this Report are focused on entities that are particular beneficiaries of AIS program activities and an AIS-free aquatic environment. Federal funding for AIS programs also is critical and every effort should be made to expand and leverage Federal funding to supplement state efforts.

2. General Fund. In recognition of the benefits to all Washington residents that accrue from having an environment relatively free from aquatic invasive species, the costs that would be incurred in the event of a zebra/quagga mussel infestation, and the wide variety of vectors that could contribute to the spread of aquatic invasive species, funding for AIS programs should have a strong General Fund component. The Committee agreed that the general fund should account for at least half of total AIS funding (\$2.6M/ year using WDFW’s current estimate of program funding need). Beyond that agreement, Committee members were mixed on the exact proportion of AIS funding that should be made up of General Fund. Some Committee members supported a substantial General Fund goal, up to 100 percent of the program. Other Committee members were not comfortable relying on General Fund funding to the exclusion of funding from user groups, particularly given previous attempts for funding for AIS programs from the General Fund. The Committee specifically discussed and endorsed using revenue from the current electric Public Utility Tax as part of General Fund funding for AIS programs, because of the benefits of an AIS-free environment to electric utility generators and the impact on electric utility rates that would occur if AIS were to foul utility infrastructure.

3. Fee-based, User Funding. Fee-based, user funding should draw on sectors that present a risk of AIS introduction or transmission, and those sectors that benefit most from healthy, AIS-free aquatic environments: recreational boaters, small boaters and the paddle sport community, commercial watercraft, large shipping vessels, out-of-state boaters who use Washington waters, commercial transporters of watercraft, seaplane owners, and the pet/aquarium trade. The AIS FACT agreed that broad participation in fee-based, user funding would enhance the success of the program. Recreational boaters are the only group that currently participates in funding for the state AIS program through fees, contributing over \$5 million to date, plus additional effort and resources through public/private partnerships, and they expect to continue (see below). As other individual sectors seek ways to avoid fees on their particular sector while supporting fees on other user groups, overall support for fee-based

funding declines. Some members feel that unless all major identified user groups contribute to this program no additional user fees should be implemented. In all instances any interaction with user groups through fees should be used as an opportunity for education and outreach on the risks and potential transmittal methods of AIS and actions users can take to minimize AIS transmission risk. In structuring new user fee programs care should be taken to ensure that program implementation adheres to the principle of efficiency with a favorable benefit-cost profile, so that the administrative burden of collecting the funding doesn't exceed the revenue realized.

3a. Recreational registered watercraft. Recreational registered watercraft already participate in AIS funding and expect to continue to do so. Recreational registered watercraft are watercraft over 16ft in length or smaller watercraft with motors of at least 10hp. Owners of these watercraft are required to register their watercraft annually in Washington State through the Department of Licensing. The cost of registration includes a \$2 per watercraft/per year AIS prevention and enforcement fee, which generates approximately \$.5M in AIS funding per year. Recreational boaters are the only organization paying funds directly into the AIS operating budget program through an ongoing \$2 portion of annual registration fees. In addition to paying approximately \$500,000 a year into the AIS funding, recreational boaters took a significant step in agreeing to both extend this annual payment and to make it permanent through elimination of a sunset date. There was broad recognition that recreational boaters already are paying a significant share into the current AIS program. This fee should continue to fund AIS programs.

3b. Small watercraft. Small watercraft include all non-registered boats that are less than 16ft, watercraft with motors less than 10hp or with no motors including the paddle sport community. Small watercraft have the potential to introduce and spread invasive species which might attach to the hull, be entrained in trapped water in the vessel, or transported by small watercraft users wading and launching boats in the shallows; more importantly, small watercraft users benefit from an AIS-free environment through, among other things, access to a wide variety of salt and freshwater bodies that would likely be closed if AIS infestation were to occur (e.g., as in the closure of Capitol Lake in Olympia due to New Zealand mud snail infestation). Any fees for small watercraft should be commensurate with AIS funding participation (fees) from registered boaters and should not exceed the small watercraft fees in place in Oregon and Idaho, which are \$5.00 and \$7.00 per year respectively. Participation of the small watercraft community in AIS funding could be accomplished through a variety of mechanisms, such as: (a) registering small watercraft so they participate in the \$2 per vessel/per year fee just as recreational boaters do; (b) establishing a permit or sticker system for small watercraft similar to those established in Oregon, Idaho, and several other states; (c) establishing a surcharge/fee on small watercraft equipment purchases such as the boats and paddles, waterproof boots/waders, wetsuits, and the like; or (d) a combination of these mechanisms. Currently these watercraft are not registered in Washington State, and there appears to be little, if any, support from the paddle sports community for registration at this time; the infrastructure associated with establishing a fee collection system also is not insignificant. The paddle sport community is a large part of the small watercraft user group. They are currently engaged in an effort being led by State Parks to explore various mechanisms to participate in funding for state programs that are of interest to

them. Development of the details around the paddle sport community's participation in AIS funding should be coordinated with the State Parks-led effort to ensure that any new program to collect fees from this sector meets a comprehensive set of their needs and interests and is not limited to only AIS funding. Provisions should be made to ensure fairness for individuals or groups (such as boat clubs or commercial enterprises or businesses) that have multiple small watercraft.

3c. Commercial watercraft and seaplanes. Commercial watercraft and commercial and recreational seaplanes that are exempt from the current \$2 per vessel/per year recreational watercraft registration fee have the potential to introduce or spread AIS in the same ways as other watercraft and vessels. The number of commercial watercraft and seaplanes is small, therefore, developing a separate participation mechanism only for them likely would be disproportionately costly. Their participation should instead be accomplished by leveraging an existing program – such as existing annual excise and property tax requirements – or by combining them with another user group such as small watercraft. Some commercial watercraft meet the definition of “small watercraft” and care should be taken not to impose duplicative fees on them.

3d. Out-of-state watercraft. Watercraft registered in another state that use Washington waters have the potential to introduce or spread AIS. Participation of out-of-state watercraft in AIS funding should be accomplished through a permit/sticker program. Fees for out-of-state watercraft should be comparable to the \$20 and \$22 fees already in place in Oregon and Idaho respectively. Establishment of this fee program should include authority for WDFW to enter into reciprocity agreements with neighboring states where such agreements are determined to be in the best interest of Washington State residents.

3e. Commercial transporters of watercraft. Commercial transporters of watercraft have the potential to introduce or spread AIS, and benefit from an AIS-free environment. The number of commercial watercraft transportation events is very small; therefore, developing a separate participation mechanism only for them would be disproportionately costly. Their participation in AIS funding should be accomplished by combining an AIS program fee with an existing program that reaches them (e.g., through the state patrol) or by combining their participation with that of another user group such as the non-resident watercraft.

3f. Pet and Aquarium Trade. Release of exotic aquatic animals has created AIS outbreaks in Washington. Participation of sellers of aquatic pets, such as fish and amphibians, and related supplies in AIS funding could be modeled after the Tire Retailer Fee by establishing a reasonable fee on the sale of aquatic pets and aquariums to be collected at the point of sale and forwarded to a dedicated AIS program account. Outreach to representatives of the pet and aquarium industry should help inform establishment of the best fee mechanism and amounts.

4. Private/Public Partnerships. Wherever practical and of mutual interest and benefit, partnerships should be used to implement AIS program activities and supplement state general funds and user fees. Ideally, partnerships would have sufficient durability and predictability to implement the contemplated

partnership activities reliably. The groups mentioned in the recommendations below (irrigation districts, shellfish growers, and non-Federal hydropower, at the sector level, acknowledge and intend to move forward with WDFW to develop clear and mutually beneficial partnerships.

4a. Irrigation districts. Irrigation districts are key beneficiaries of an AIS-free environment and have expressed some interest in a partnership approach if a state program is not sufficient. WDFW and RCO should enter into a process with irrigation districts with the goal of developing a partnership where districts take responsibility for AIS monitoring in their jurisdictions if the state program is not funded at a level adequate to protect irrigation facilities. This process will involve creating a shared understanding of the risks of AIS in irrigation infrastructure, and agreement on monitoring and analysis methods and protocols. Districts also might participate in AIS funding through other means, such contributing funding to support a local AIS prevention grant program.

4b. Education, Outreach, and Local AIS Grants. In addition to the broad public benefit provided by AIS programs, a number of entities particularly benefit from an AIS-free environment, including the shellfish industry and the non-federal hydropower system¹, and could improve AIS outcomes through public/private partnerships for education and outreach, local AIS grants, or other beneficial activities that reduce the likelihood of AIS introduction or spread in Washington. WDFW and RCO should enter into a process with these entities with the goal of developing, by December 31, 2016, a partnership program to encourage and enable entities to meaningfully contribute to AIS prevention education and outreach and/or contributing to a local AIS prevention grant program.

Additional Committee Observations and Discussion – Shipping Vessels

Ultimately, the Committee did not reach consensus on shipping vessels participation in AIS program funding. Shipping vessels are vessels of three hundred gross tons or more, United States and foreign, carrying, or capable of carrying, ballast water into the coastal waters of the state after operating outside of the coastal waters of the state. Like other watercraft, shipping vessels have the potential to introduce or spread AIS; in this case though ballast water and biofouling (where AIS attach to the hulls of vessels). Six states have AIS-related fees for shipping vessels. In the West, fees are based on qualified vessel arrivals and are \$88 in Oregon and \$850 in California. In the Great Lakes shipping vessels participate in state AIS funding through permits and annual fees which range from a \$75 application fee and \$150 annual permit fee in Michigan to a \$1,200 application fee and \$385 annual permit fee in Wisconsin.

Shipping vessels are subject to both state and federal US Coast Guard and Environmental Protection Agency ballast water and biofouling requirements. Committee members representing shipping vessels and ports believe that the federal regulatory transition to a new technology-based ballast water

¹ The Federal Hydropower System also is a particularly beneficiary of an AIS-free environment. Federal hydropower operators make investments in AIS detection and prevention to the Bonneville Power Administration; these investments are critical and should continue. Non-federal hydropower operators make investments in AIS detection and prevention as required by their operating licenses issued by the Federal Energy Regulatory Commission. Both of these federal and non-federal hydropower system investments are critical and should continue.

management system will greatly reduce or eliminate the need for a state program. In the Committee charter, members agreed to assume that the state ballast water program would be needed for at least five years to assess whether the technology and the transition to federal ballast water management adequately protects state aquatic environmental and aquatic-based economic resources.

Most Committee members believed that shipping vessels should participate in AIS funding along with other watercraft. Committee members representing shipping vessels and ports did not agree that they should participate in AIS funding citing the following. (1) Many shipping vessels do not discharge ballast water in Washington waters and therefore present minimal risk of AIS introduction or transfer. (2) Federal ballast water requirements represent a significant financial burden on shipping vessels and, as they are more fully implemented, will address ballast water concerns minimizing the need for a state ballast water program. Shipping vessels and ports believe a state ballast water program largely duplicates federal efforts and therefore are not in support of increased funding for the state program; they further believe that if state fees for shipping vessels are put in place even temporarily to bridge between the current program status and full implementation of federal ballast water requirements, there is little hope such fees will be adjusted downward or sunset as Federal ballast water programs come to fruition. (3) Fees imposed by Washington State on shipping vessels could damage the competitiveness of Washington ports.

Committee members who believed shipping vessels should participate in AIS funding noted the following. (1) In the context of a broadly shared resource – marine and freshwater ecosystems -- it seems unfair to single out shipping vessels as the only user groups whose participation in AIS funding is not contemplated, especially given the size of the vessels compared, for example to a recreational boat or a small watercraft. (2) A user group's risk of AIS introduction or transfer is not the only factor that should govern whether or how they participate in AIS funding, all users of the marine and freshwater environments benefit in different ways from keeping these environments free of AIS; risk has not been a determining factor in the participation of other user groups, for example, many recreational boats stay in only one area of Washington waters and therefore present minimal risk of AIS introduction or transfer however they participate in AIS funding because as users of the aquatic environment they benefit from keeping these waters open and AIS free and want to ensure the AIS issue is well addressed. (3) Federal ballast water programs are not yet fully implemented, their ability to protect state resources is unclear, and in their current form they do not adequately address biofouling, considered by scientists to be an as great or greater AIS risk as ballast water, and where all shipping vessels present an AIS risk.

Attachment 1: Comparison of State AIS Program Funding Levels

Summary of 2014 AIS Budgets

FINAL Feb. 23, 2016

Table 1. States with aquatic invasive species (AIS) watercraft fees by AIS program type, annual fee amount and annual number of participating watercraft (units), and by watercraft type (motorized and non-motorized) and resident or non-resident categories. Arranged by state in alphabetical order.

State/Local (Year started)	AIS Program Type (Sticker or Permit)	Motorized				Non-Motorized			
		Resident		Non-Resident		Resident		Non-Resident	
		Fee	Units	Fee	Units	Fee	Units	Fee	Units
California (2014)	AIS Sticker	\$8	176K	N/A	-	N/A	-	N/A	-
Idaho (2009)	Reg & AIS Sticker	\$10	87K	\$22	13.5K	\$7	24K	\$7	(Incl. in resident)
Maine (2002)	AIS Sticker	\$10	93K	\$20	10K	N/A	-	N/A	-
Minnesota (1992)	Reg Sticker	\$1.67	273K	N/A	-	(Incl. in resident motorized)		N/A	-
Nevada (2013)	Reg & AIS Sticker	\$10	40K	\$20	2K	\$5	4.2K	\$10	0.6K
Oregon (2010)	Reg & AIS Permit	\$2.50	69.3K	\$20	4.7K	\$5	29K	\$5	10K
Washington (2006)	Reg Sticker	\$2	245K	N/A	(Est. 20K comb R/NR)	N/A	(Est. 50K)	N/A	(Est. 20K comb R/NR)
Wyoming (2010)	Reg & AIS Sticker	\$10	20K	\$30	10K	\$5	6.9K	\$15	5.3K
Lake Whatcom (WA) (2013)	AIS Sticker	\$50	2K	\$50	.37K	\$10	2.4K	\$10	(comb R/NR)
Lake Tahoe (CA/NV) (2010)	AIS Sticker/ Seal	\$30-121	(new)	\$30-121	(comb R/NR)	N/A	-	N/A	-
Truckee Reg. (CA)(2014)	AIS Permit	\$20-40	(unk)	\$20-40	(comb R/NR)	N/A	-	N/A	-

Table 1 Notes:

- AIS Program Type -
 - “Reg Sticker” means payment of AIS fee for resident registered watercraft is verified by having valid state watercraft registration sticker/decals
 - “AIS Sticker” means the state issues a separate AIS sticker/decals that must be readily visible on the watercraft in addition to any valid state registration sticker/decals

- “AIS Permit” means the state issues a document that does not have to be displayed on the exterior of the watercraft, but does have to be in possession by someone on the watercraft
- Fees are all per year (split if fee covers multiple years)
- Fees/Units are number of boaters/watercraft that participated in program based on 2014 data unless otherwise noted
- The terms “motorized” and “non-motorized” are standardized and reflect a state’s minimum length and/or motor power criteria for registration purposes (e.g. in WA, a sailboat over 16 ft without a motor is classified as “motorized” – requires annual registration - and a skiff less than 16ft with a motor less than 10 hp would be classified as “non-motorized” – registration not required)
- States vary on watercraft definitions for each category and generally have multiple sub-funding options.
- Canadian provinces do not have watercraft fees as registration is federal and free.

Table 2. U.S. State/Canadian Province 2014 Aquatic Invasive Species Program Annual Budgets – arranged highest to lowest by 2014 budget.

State/ Province/ Local (Year started)	2014 AIS Budget (\$millions)	2014 Boat Regist. (Total)	2014 Pop. (Humans)	Funding sources
Minnesota (1991)	\$ 8.85	809K	5.5M	State general fund (41%); Watercraft fees (22%); Trust fund (10%); NR fishing lic fee (9%); Federal (8%)
California (2000)	\$ 5.92	729K	39.1M	Watercraft registration diversion (48%); AIS Watercraft fees (48%); General fund (4%); Federal (<1%)
Wisconsin (2003)	\$ 4.50	627K	5.8M	Gas tax diversion (100%)
Colorado (2008)	\$ 4.00	88K	5.5M	State Severance tax diversion (100%)
Michigan (1996)	\$ 3.50	789K	9.9M	State (76%); Federal (24%)
Alberta (2013)	\$ 2.10	166K	4.1M	Province (93%); Stakeholder contributions (7%)
Utah (2007)	\$ 1.90	67K	3.0M	State (71%); Federal (18%); Other grants (11%)
Wyoming (2010)	\$ 1.35	27K	0.6M	State (63%); Watercraft fees (33%); Federal (4%)
Idaho (2001)	\$ 1.25	86K	1.7M	Watercraft fees (100%)
Lake Tahoe (2008)	\$ 1.20	N/A	N/A	Federal (47%); AIS Watercraft fees (46%); State-Nevada (7%)
Montana (2004)	\$ 1.14	47K	1.0M	State (84%); General license diversion – fish/ hunt, ATV, etc. (16%); Federal (2%); other grants (3%)
Brit. Columbia (2008)	\$ 1.10	unk	4.6M	BC Power/Columbia Basin Trust grants (45%); Province (37%); Provincial partners/In-kind (18%)
Oregon (2010)	\$ 0.81	163K	4.0M	Watercraft fees (100%)
Hawaii (2005)	\$ 0.78	12K	1.4M	Ship grounding settlement trust fund (100%)

State/ Province/ Local (Year started)	2014 AIS Budget (\$millions)	2014 Boat Regist. (Total)	2014 Pop. (Humans)	Funding sources
Nevada (2011)	\$ 0.60	44K	2.9M	Federal (65%); Watercraft fees (35%)
Washington (1998)	\$ 0.42	230K	7.2M	Watercraft fees (100%)
Lake Whatcom (2013)	\$ 0.35	N/A	0.2M (County)	Watercraft fees (35%); City of Bellingham (26%); Whatcom Co. (26%); Lk Whatcom Water/Sewer Dist. (13%)
Alaska (2002)	\$ 0.21	70K	0.7M	Federal (81%); State (19%)

Table 2 Notes:

- “AIS Budget” primarily for aquatic invasive animal species – not including shipping (ballast water/biofouling) pathways
- State 2014 watercraft registration data: [USCG 2014 Recreational Boating Statistics report](#)
- Population data: <https://www.census.gov/popest/data/state/totals/2014/> ;
<http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo02a-eng.htm>

Table 3. U.S. State/Canadian Province 2014 Ballast Water/Biofouling Program Annual Budgets - arranged highest to lowest by 2014 budget.

State/Province (Year started)	2014 Budget (\$millions)	2014 Arrivals (Vessels)	2014 Discharge Vol (Metric Tons)	Funding sources
California (2000)	\$ 4.75	9,263	14.7M	Shipping fee (100%)
Wisconsin (2010)	\$ 0.35	944	12.8M	Shipping fee (100%)
Washington (2000)	\$ 0.34	4,047	16.8M	State (85%); Watercraft fee (7.3%); Federal (7.3%)
Oregon (2001)	\$ 0.22	1,044	6.3M	Shipping fee (50%); State (50%)
Minnesota (2008)	\$ 0.13	761	15.8M	Shipping fee (85%); State (15%)
Hawaii (2000)	\$ 0.11	1,025	0.6M	State (100%)
Michigan (2002)	\$ 0.04	2,912	15.8M	Shipping fee (82%); State (18%)
Alaska (N/A)	\$ 0	2,403	12.9M	N/A (USCG/EPA only – mandatory USCG started in 2004; EPA in 2008)
British Columbia (N/A)	\$ 0	3,430	(pending later 2016)	N/A (Federal only – mandatory started in 2006)

Table 3 Notes:

- Arrivals/Discharge: data from USCG National Ballast Information Clearinghouse (NBIC)
 - <http://invasions.si.edu/nbic/search.html>
 - NBIC data used for comparison purposes – WA 2014 arrival/discharge data similar, but recorded 4003/17.2 m³ respectively

Table 4. Comparison of 2014 AIS Program budgets by select state and prevention, enforcement, and ballast water/ biofouling program activities – arranged highest to lowest by total 2014 budget.

State	AIS Prevention (\$millions)	AIS Enforcement (\$millions)	AIS Grant Program (\$millions)	Ballast Water/ Biofouling (\$millions)	Total 2014 Budget (\$millions)
California	\$ 3.19	\$ 0.04	\$ 2.69	\$ 4.75	\$10.67
Minnesota	\$ 5.95	\$ 2.24	\$ 0.66	\$ 0.13	\$ 8.98
Wisconsin	\$ 0.50	-	\$ 4.00	\$ 0.35	\$ 4.85
Colorado	\$ 3.40	\$ 0.30	\$ 0.30	-	\$ 4.00
Michigan	\$1.30	\$ 0.17	\$ 2.00	\$ 0.04	\$ 3.51
Alberta	\$ 1.40	\$ 0.63	-	-	\$ 2.10
Utah	\$ 1.50	\$ 0.40	-	-	\$ 1.90
Wyoming	\$ 1.35	-	-	-	\$ 1.35
Oregon	\$ 0.57	\$ 0.11	\$ 0.14	\$ 0.22	\$ 1.30
Idaho	\$ 0.50	-	\$ 0.75	-	\$ 1.25
Montana	\$ 1.05	\$ 0.09	-	-	\$ 1.14
British Columbia	\$ 1.10	-	-	-	\$ 1.10
Hawaii	\$ 0.78	-	-	\$ 0.11	\$ 0.89
Washington	\$ 0.25	\$ 0.17	-	\$ 0.34	\$ 0.76
Alaska	\$ 0.21	-	-	-	\$ 0.21

Table 4 Notes:

- AIS Enforcement budgets are funds targeted specifically to “badge and gun” officers to support compliance with AIS regulations
- AIS Grant programs are funds targeted specifically for enhancement of AIS
- “-“ means no AIS-specific budget for that category

All Tables State/Province Data Sources & Notes

Alaska: Tammy Davis (AK Dept of Fish and Wildlife)

- <http://www.adfg.alaska.gov/index.cfm?adfg=invasive.main>
- <http://doa.alaska.gov/dmv/research/boat14.htm>
- No AIS watercraft fee, enforcement, grant, ballast water, or biofouling programs
- Received additional \$500K 1x state funds in 2014 for invasive tunicate work
- State funds decreasing annually as price for oil drops; 2015 reduced from \$39K to \$8.8K
- 0% of AIS prevention and grant budgets goes to AIS plant management other than transported on watercraft.

Alberta (Canada): Kate Wilson (Alberta Environment & Parks) – amounts in Canadian dollars

- <http://esrd.alberta.ca/recreation-public-use/invasive-species/aquatic-invasive-species/default.aspx>
- ~3% of AIS prevention and enforcement budgets goes to AIS plant management other than transported on watercraft.

British Columbia (Canada): Matthias Herborg (BC Ministry of Environment) – amounts in Canadian dollars

- <https://www.for.gov.bc.ca/hra/invasive-species/index.htm>
- 0% of AIS prevention and grant budgets goes to AIS plant management other than transported on watercraft. Separate program/budget.
- Ballast water data provided by Paul Mudroch at Transport Canada

California:

- Martha Volkoff, State AIS Coordinator (CA Dept. of Fish & Wildlife)
 - <https://www.wildlife.ca.gov/Conservation/Invasives/Quagga-Mussels>
 - Resident motorized watercraft registration is every 2 years (\$16 AIS fee/2)
 - CDFW (\$3.23M) watercraft funds diverted from existing registration costs
 - There are 80 known local watercraft inspection programs throughout California - See <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=46843> for list. Lake Tahoe and Truckee Regional programs are two of an unknown number that charge watercraft fees
 - ~5% of AIS prevention budget goes to AIS plant management other than transported on watercraft.
- Eddie Hard, AIS Environmental Program manager (CA State Parks)
 - <http://www.dbw.parks.ca.gov/Funding/QZGrant.aspx>
 - CA State Parks (\$2.69M) watercraft funds are from new AIS sticker fee and units apply only to resident registered watercraft used in freshwater systems (zebra/quagga mussel risks) - Watercraft used exclusively in marine environments exempt
 - AIS grant program competitive and targeted for prevention of zebra/quagga species to the owners/operators of uninfested waters that are open to the public
 - \$200K of AIS grant went to support Lake Tahoe AIS program
- Nicole Dobroski, Ballast Water/Biofouling Program Lead (CA State Lands Commission)
 - <http://www.slc.ca.gov/Programs/MISP.html>
 - \$850 per qualified vessel arrival – QVA
 - Funds divided between programs as follows: Ballast water (85%), Biofouling (15%), Marine species monitoring (39%), Water quality (2%)

Colorado: Elizabeth Brown, AIS Coordinator (CO Dept. of Parks & Wildlife)

- <http://cpw.state.co.us/thingstodo/Pages/BoatInspection.aspx>
- <5% of AIS prevention budget goes to AIS plant management other than transported on watercraft.
- AIS grant program is contracted (non-competitive) to local jurisdictions to operate state watercraft inspection stations at high risk water bodies.

Hawaii – Brian Neilson, AIS Coordinator (HI Dept. of Land and Natural Resources)

- <http://dlnr.hawaii.gov/ais/>
- 100% of AIS prevention budget is for invasive marine algae management
- Funding sources and AIS prevention more diverse in 2015
- <http://dlnr.hawaii.gov/ais/ballastwaterbiofouling/ballastwaterdetails/>

- Ballast water (15%), Biofouling (70%), “Non-shipping” (15%)
- 100% of AIS prevention budget is for invasive marine algae management
- Funding sources and AIS prevention more diverse in 2015

Idaho – Tom Woolf, AIS Coordinator (ID Dept. of Agriculture)

- <http://www.idahoag.us/Categories/Environment/InvasiveSpeciesCouncil/indexInvSpCouncil.php>
- http://www.idahoag.us/Categories/Environment/InvasiveSpeciesCouncil/Sticker_Purchase.php
- Units are based on 2011 data
- 0% of AIS prevention budget goes to AIS plant management other than transported on watercraft - separate budget of approx. \$900K/yr.
- Approx. 60% of AIS prevention budget is contracted (non-competitive) to local conservation/lake district “partners” to run state watercraft inspection stations in those areas.

Lake Whatcom (WA) – Teagan Ward (City of Bellingham)

- <http://whatcomboatinspections.com/annual-permits-and-fees>
- Program (includes Lake Samish) is jointly managed by the Lake Whatcom Management Program, a partnership between the City of Bellingham, Whatcom County, and the Lake Whatcom Water and Sewer District
- The AIS Program is administered by the City of Bellingham's Public Works Department
- No separate fees for resident vs. non-resident boats, est. 365 non-resident based on registration information

Lake Tahoe (CA/NV) – Dennis Zabiglo (Tahoe Regional Planning Agency)

- <http://tahoebotinspections.com/>
- \$30 “Resident” watercraft fee for those that never leave lake
- \$33-121 fee scale for launching boats primarily based on watercraft length

Maine – Bill Swan (ME Dept. of Inland Fish & Wildlife)

- http://www.maine.gov/ifw/atv_snowmobile_watercraft/lake_river_sticker.htm
- Units apply only to watercraft used in freshwater systems (zebra/quagga mussel risks)
- Watercraft used exclusively in marine environments (~27K) exempt

Michigan - Sarah LeSage and Sean Syts (MI Dept. of Environmental Quality)

- http://www.michigan.gov/deg/0,4561,7-135-3313_3677_8278---,00.html
- <http://www.michigan.gov/invasives/0,5664,7-324-67998---,00.html>
- AIS program funds based on 2015 budgets as more comparative for ongoing values
- Majority of AIS enforcement budget goes to MI DNR for pet/aquarium industry inspections
- Split between AIS animal and plant prevention and grant budgets based on annual or rapid response priority management needs
- AIS grant program is competitive
- Ballast water NPDES permit: \$75 appl. + \$150 annual permits

Minnesota –

- Kelly Pennington (MN Dept. of Natural Resources)
 - <http://www.dnr.state.mn.us/invasives/eco/index.html>
 - Resident watercraft registration is every 3 years (\$5 AIS surcharge/3); historic – started at \$2 in 1990 (AIS plants), then \$3 in 1992 (all AIS), then \$5 since 1993.

- Motorized and non-motorized watercraft are combined under their resident watercraft registration laws
- Unknown percentage of AIS prevention, enforcement, and grant budgets goes to AIS plant management other than transported on watercraft.
- 6% of AIS prevention budget goes to terrestrial invasive animal species management
- AIS grant program is competitive
- An additional \$1.1M “Local Funds” is in-kind funding for AIS plant management and watercraft inspections by local groups
- Jeff Stollenwerk (MN Pollution Control Agency)
 - <http://www.pca.state.mn.us/index.php/water/water-permits-and-rules/water-permits-and-forms/vessel-discharge-ballast-water-program.html>
 - NPDES permit: \$1,240 permit appl. + \$345 annual fee
 - Ballast water (99%), Biofouling (1%)

Montana - Thomas Boos, AIS Coordinator (MT Fish, Wildlife & Parks)

- <http://fwp.mt.gov/fishAndWildlife/species/ais/>
- 15% of AIS prevention and grant budgets goes to early detection monitoring for AIS plants

Nevada - Karen Vargas, AIS Coordinator (NV Dept. of Wildlife)

- [http://www.ndow.org/Boat/Aquatic Invasive Species/](http://www.ndow.org/Boat/Aquatic%20Invasive%20Species/)
- [http://www.ndow.org/Boat/Aquatic Invasive Species/Decal Information/](http://www.ndow.org/Boat/Aquatic%20Invasive%20Species/Decal%20Information/)

Oregon –

- Glenn Dolphin (OR Marine Board) and Rick Boatner (OR Dept. of Fish & Wildlife) AIS Co-coordinators
 - http://www.dfw.state.or.us/conservationstrategy/invasive_species/quagga_zebra_mussel.asp
 - http://www.dfw.state.or.us/conservationstrategy/invasive_species.asp
 - <http://www.oregon.gov/osmb/clean/pages/aisppfaqspage.aspx>
 - Resident motorized watercraft registration is every 2 years (\$5 AIS fee/2)
 - Resident/non-resident non-motorized fees estimated 75/25% split
 - 0% of AIS prevention budget goes to AIS plant management other than transported on watercraft – handled by another agency and budget.
 - AIS grants are contracted (non-competitive) to Portland State University to conduct early detection monitoring on behalf of state and other non-competitive research/management grants such as to USFS for tunicate work.
- Rian Hooff, Ballast Water Program Lead (OR Dept. of Environmental Quality)
 - <http://www.deq.state.or.us/lq/cu/emergency/ballast.htm>
 - \$70 per QVA (going to \$88 QVA Jan 2016)
 - Ballast water (97%), Biofouling (3%)

Truckee Regional AIS Prevention Program (CA) – web site

- <http://truckeeboatinspections.com/>
- Annual \$40; Seasonal \$25 (May-Sept); Monthly \$10; Donner only \$20 (May-Sept)
- Applies only to “motorized and/or trailered watercraft, and other watercraft having water ballast tanks”

Utah - Nate Owens, Interim AIS Coordinator (UT Dept. of Natural Resources)

- <http://wildlife.utah.gov/invasive-mussels.html>

Washington – Allen Pleus, AIS and Ballast Water Program Lead (WA Dept. of Fish & Wildlife)

- <http://wdfw.wa.gov/ais/>
- <http://www.dol.wa.gov/vehicleregistration/registerboat.html>
- <http://wdfw.wa.gov/ais/ballast/>
- Ballast water (95%), Biofouling (5%)
- 0% of AIS prevention budget goes to AIS plant management other than transported on watercraft – Dept. of Ecology program.

Wisconsin –

- Robert Wakeman, AIS Coordinator (WI Dept. of Natural Resources)
 - <http://dnr.wi.gov/lakes/invasives/AquaticInvasive.aspx>
 - ~45% of AIS grant budgets goes to AIS plant management other than transported on watercraft.
 - AIS grant program is competitive.
- Susan Sylvester, Ballast Water Program Lead (WI Dept. of Natural Resources)
 - <http://dnr.wi.gov/topic/wastewater/generalpermits.html>
 - NPDES permit: \$1,200 appl. + \$385 annual

Wyoming – Beth Bear, AIS Coordinator (WY Dept. of Fish & Wildlife)

- <https://wgfd.wyo.gov/Fishing-and-Boating/Aquatic-Invasive-Species-Prevention/AIS-Resources>
- <https://wgfd.wyo.gov/Fishing-and-Boating/Aquatic-Invasive-Species-Prevention/AIS-Decal>
- \$10 AIS watercraft fee is per year even though resident motorized watercraft registration is every 3 years (\$30/registration)
- < 2% of AIS prevention budget goes to monitoring AIS plants other than transported on watercraft.
- AIS enforcement duties part of general enforcement budget.

Attachment 2: AIS FACT Charter

WASHINGTON INVASIVE SPECIES COUNCIL AQUATIC INVASIVE SPECIES FUNDING ADVISORY COMMITTEE

CHARTER

I. Background

The 2015 Legislature directed that part of the aquatic lands enhancement account be used to develop recommendations for future funding for the State aquatic invasive species program. Recommendations must be provided to the Governor and Legislature by June 1, 2016.

To fulfill this direction, the Washington Invasive Species Council, in partnership with the Department of Fish and Wildlife (WDFW) and the Recreation and Conservation Office, convened the Aquatic Invasive Species Funding Advisory Committee (“Committee”) to consider potential funding mechanisms and make recommendations.

II. Purpose and Anticipated Outcomes

The Committee was established to fulfill the direction of the Legislature by providing recommendations on future funding mechanisms for the State aquatic invasive species program (including the prevention, enforcement, and ballast water programs). Recommendations will be sent to the Invasive Species Council and provided to the Legislature. WDFW, in consultation with the Invasive Species Council and the Governor’s office, is responsible for development of a proposal to the Legislature.

It is expected that the Committee will deliberate on the following topics:

- Principles for funding recommendations
- Potential funding mechanisms
- Recommendations for aquatic invasive species program funding mechanisms

For purposes of this effort, the Committee should assume that the State’s interest in aquatic invasive species control will continue in perpetuity; and the State ballast water program at its current level will be needed for at a minimum of five more years. The Committee will rely on estimates of program funding need prepared by WDFW.

III. Membership and Participation

The Invasive Species Council and WDFW identified potential Committee members by reaching out to individuals in the aquatic invasive species community including commercial and recreational boaters, ports, environmental interests, and other stakeholders, as well as county and tribal governments. Potential members were invited by the Invasive Species Council and WDFW.

Direct participation of all Committee members is essential to the success of the Committee. For that reason, members are asked to make every effort to attend in-person meetings and participate in conference calls. In the rare occasions that a member cannot be present, an alternate may be proposed to participate on his or her behalf. It is the responsibility of the member to ensure that any alternate is fully briefed and prepared to participate in deliberations.

All members are expected to participate throughout the duration of the process. Only members who participate fully in the process will be included in the Committee consensus.

Members are requested to:

- Represent their community/sponsoring organization
- Actively engage in discussion and bring constituent concerns to the table, as well as seek an increased understanding of others’ views
- Speak candidly and bring their ideas and expertise to the deliberations to help inform the Committee’s choices
- Communicate back to their communities/sponsoring organizations so representation is confident and surprises are minimized

State and federal agencies are participating as ex officio members and are present as resources to the Committee to offer perspectives and answer questions. They are not part of the Committee consensus.

IV. Decision Making and Consensus

Only funding mechanisms on which the Committee reaches consensus will be recommended. Consensus is defined as a funding mechanism that all members can “live with” even though it might not be the first, or even the preferred, choice of each. The Committee can expect that all

consensus recommendations will be made available to the Legislature and given serious consideration by WDFW and the Invasive Species Council.

In the event consensus is not reached, the full range of perspectives expressed by Committee members will be described in the Committee report and considered by the Invasive Species Council, WDFW, and the Governor's office in developing a proposal to take forward to the Legislature.

Consensus will be evaluated through a variety of techniques, including one-on-one conversations with Committee members, straw polling, and other methods. Throughout the process there will be documentation of Committee deliberations in meeting notes, the draft Committee report, and other documents (if needed); the primary purpose of these documents is to summarize Committee deliberations and explore and describe emerging and final Committee consensus.

V. Tentative Work Flow, Meeting Topics, Schedule, and Duration

The Committee will meet four or five times between September 1, 2015 and January 31, 2016, with the possibility of additional meetings if needed and if resources are available. Preliminary meeting topics are described below. In addition, Committee members will be offered a telephone interview with the Committee facilitator before the first meeting. The purpose of the interview is to gather information on each Committee member's individual perspectives and to begin to understand potential areas of consensus and information needed to support Committee deliberations.

Before first meeting:

- Telephone interviews with Committee members.

September 22 – First Meeting

- Overview of current aquatic invasive species programs.
- Overview of program funding need.
- Discussion of principles for identification of funding recommendations.

Between first and second meetings:

- Address any questions to ensure clarity on current program elements and funding need.
- Refine principles for identification of funding recommendations.

October 20 – Second Meeting

- Complete discussion of program elements and funding need, as necessary.
- Complete discussion of principles for identifying funding recommendations.
- Review initial list of potential funding mechanisms and brainstorm additions/clarifications.

Between second and third meeting

- Address any questions on potential funding mechanisms to ensure clarity.
- Review initial sections of draft Committee report.
- Straw poll or survey Committee members on potential funding mechanisms.

November 17 – Third Meeting

- Deliberation on potential funding mechanisms and potential recommendations.
- Deliberation of draft Committee report.

Between third and fourth meeting

- Refine potential funding recommendations.

December 15 – Fourth Meeting (potential)

- Continue to refine and complete potential funding recommendations and draft Committee report.

January 19 – Fifth Meeting (potential)

- Continue to refine and complete potential funding recommendations and draft Committee report.

AQUATIC INVASIVE SPECIES FUNDING ADVISORY COMMITTEE GROUND RULES FOR MEETINGS

1. All members have equal opportunities to participate.
2. Discussions will stay within the objectives and scope of the Charter.
3. Members will strive for honest and direct communication, allow open discussion and the right to disagree, and look for opportunities to find common interests, agreements, and solutions.
4. Members will focus on clarifying their own views and interests; rather than on characterizing the views of other members.
5. Members and/or the facilitator may request a caucus break at any time during a meeting. In order to keep the flow of meetings on track, individual caucus breaks may not exceed 15 minutes.
6. The facilitator is a neutral third party with no stake in the outcome of the project. Ross Strategic will structure meetings to support a respectful atmosphere and the development of trust among members.
7. Meetings are expected to start and end on time.

Attachment 3: WDFW's Estimates of AIS Program Funding Needs

AIS Projected Budget Need (Based on 2014 Agency Request Legislative)

September 22, 2015

Budget Element	FY14 / \$0.508m (Watercraft fee + \$80k USFWS grant carryover)	Budget Need Target* / \$4.1m ((\$3.6m new))
Permanent FTE	3.75 (.75 regional)	13.75 (6 regional)
Seasonal FTE	0.1	6.5 (4 regional)
Administrative	<ul style="list-style-type: none"> • Limited state/regional coordination • Very limited budget/grant/contract management • Limited supervision • Very limited ballast water program management • Limited legislative proposals/ rulemaking 	<ul style="list-style-type: none"> • Comprehensive overall capacity increase
Prevention	<ul style="list-style-type: none"> • Limited capacity to provide natural resource agency field gear decontamination trainings • Limited capacity to staff AIS information booths at boat, sport, and general outdoor shows 	<ul style="list-style-type: none"> • Comprehensive natural resource agency field gear decontamination trainings • Comprehensive public field gear decontamination trainings • Comprehensive capacity to increase general media and outreach campaigns • Comprehensive capacity to conduct research and development of new AIS management methods

Budget Element	FY14 / \$0.508m (Watercraft fee + \$80k USFWS grant carryover)	Budget Need Target* / \$4.1m (\$3.6m new)
Early Detection Monitoring	<ul style="list-style-type: none"> • 140 sites 1x/yr for zebra/quagga mussels 	<ul style="list-style-type: none"> • 250+ sites 3x/yr for zebra/quagga mussels • Comprehensive capacity for other high priority AIS monitoring (European green crab, NZMS, etc.)
Rapid Response Management	<ul style="list-style-type: none"> • Limited capacity to lead comprehensive management actions as needed • Very limited pre- and rapid response permit management (chemical use, ESA, SEPA, etc.) 	<ul style="list-style-type: none"> • Comprehensive capacity to lead comprehensive management actions as needed • Comprehensive pre - and rapid response permit management (chemical use, ESA, SEPA, etc.) • Comprehensive capacity to provide technical assistance to local jurisdictions on planning or management actions for lower risk species • Conduct rapid response trainings
Infested Site Management	<ul style="list-style-type: none"> • Limited capacity to coordinate/facilitate management actions as needed 	<ul style="list-style-type: none"> • Comprehensive capacity to lead comprehensive management actions as needed • Comprehensive pre- and infested site response permit management (chemical use, ESA, SEPA, etc.) • Comprehensive capacity to provide technical assistance to local jurisdictions on management actions for lower risk species
AIS Local Management Grant	N/A	<ul style="list-style-type: none"> • NEW: \$1 m (including administrative costs)
Enforcement Watercraft AIS Inspections	<ul style="list-style-type: none"> • 50 Mandatory check stations • 14,200 Total watercraft inspections 	<ul style="list-style-type: none"> • 250 Mandatory check stations • 50,000+ Total watercraft inspections
Enforcement Investigations	<ul style="list-style-type: none"> • 10 Market/pet trade investigations 	<ul style="list-style-type: none"> • 50+ Market/pet trade investigations

Budget Element	FY14 / \$0.508m (Watercraft fee + \$80k USFWS grant carryover)	Budget Need Target* / \$4.1m (\$3.6m new)
Enforcement Trainings	<ul style="list-style-type: none"> • 5 Trainings <ul style="list-style-type: none"> ○ WSP ○ USCBP 	<ul style="list-style-type: none"> • 15+ Trainings <ul style="list-style-type: none"> ○ WSP ○ local Sheriffs ○ USFWS ○ USCBP ○ etc.

*Budget need target subject to change based on sal/ben changes, indirect rate changes, costs to implement fee programs, and other factors since FY14 calculations.

BW/Biofouling Projected Budget Need (Based on 2015 Agency Request Legislative)

September 22, 2015

Budget Element	FY14 / \$0.342m (ALEA + \$25k of Watercraft fee + \$25k USFWS grant)	Budget Need Target* / \$1.08m (\$.738m new)
Permanent FTE	3.25	5.25 (2.0 new)
Seasonal FTE	N/A	N/A
Administrative	<ul style="list-style-type: none"> • Limited state/federal regional coordination • Very limited budget/grant/contract management • Limited supervision • Very limited ballast water program management • Limited legislative proposals/ rulemaking 	<ul style="list-style-type: none"> • Comprehensive overall capacity to provide: <ul style="list-style-type: none"> ○ Full-time program management ○ State/federal regional coordination ○ Rulemaking to address BWTS integration ○ Rulemaking to address biofouling integration based on Davidson et al. 2014 report recommendations ○ Data management oversight ○ Compliance oversight ○ Budget/grant/contract management
Prevention	<ul style="list-style-type: none"> • Very limited technical assistance and outreach to vessel crews/agents 	<ul style="list-style-type: none"> • Comprehensive capacity to provide: <ul style="list-style-type: none"> ○ Monthly data and compliance updates ○ Targeted outreach to vessel crews and agents ○ General outreach to public on program accomplishments

Budget Element	FY14 / \$0.342m (ALEA + \$25k of Watercraft fee + \$25k USFWS grant)	Budget Need Target* / \$1.08m (\$0.738m new)
Early Detection Monitoring	<ul style="list-style-type: none"> • 315/yr average vessel inspections by additional data management and increased enforcement duties 	<ul style="list-style-type: none"> • 350/yr average vessel inspections with improved administrative data management support • New biofouling vessel inspection system integration consistent with regional approach • Comprehensive capacity to conduct: <ul style="list-style-type: none"> ○ Conduct routine biological ballast water exchange sampling for effectiveness/risk management ○ Test/implement new ballast water treatment sampling systems ○ Conduct routine biological sampling of state marine and estuary waters for identifying existing or new infestations
Rapid Response Management	<ul style="list-style-type: none"> • Limited by staffing and lack of emergency treatment capacity 	<ul style="list-style-type: none"> • Comprehensive capacity to provide: <ul style="list-style-type: none"> ○ Increased coverage of high risk vessel arrivals outside regular work schedules/hours ○ Test/implement new emergency treatment systems
Infested Site Management	N/A	N/A
BW/Biofouling Contracts	<ul style="list-style-type: none"> • Very limited by administrative capacity 	<ul style="list-style-type: none"> • Comprehensive capacity to implement contracts for: <ul style="list-style-type: none"> ○ Biological sampling analysis ○ New biofouling database ○ Upgraded ballast water database ○ Clean-up and integration of pre-2008 data ○ Emergency treatment services ○ Ongoing technology/information needs

Budget Element	FY14 / \$0.342m (ALEA + \$25k of Watercraft fee + \$25k USFWS grant)	Budget Need Target* / \$1.08m (\$0.738m new)
BW/Biofouling Compliance Investigations	<ul style="list-style-type: none"> • Limited by administrative and data management capacity (protocols, compliance plans, alternative strategies) 	<ul style="list-style-type: none"> • Comprehensive capacity to: <ul style="list-style-type: none"> ○ Implement high risk vessel identification system based on Cordell et al. 2015 report recommendations ○ Consistently identify non-compliant vessels using improved database query systems ○ Follow-up high risk vessel identification with existing compliance plan and alternative strategy systems
BW/Biofouling Compliance Enforcement	<ul style="list-style-type: none"> • Very limited by administrative and data management capacity (Protocols, compliance plans, alternative strategies, penalties) 	<ul style="list-style-type: none"> • Comprehensive capacity to: <ul style="list-style-type: none"> ○ Identify and assess penalties as necessary for repeat offenders
BW/Biofouling Compliance Trainings	<ul style="list-style-type: none"> • Very limited by administrative and inspector capacity (coordination with USCG vessel inspectors) 	<ul style="list-style-type: none"> • Comprehensive capacity to: <ul style="list-style-type: none"> ○ Conduct/host regional state regulator inspection trainings ○ Develop regional inspection protocols for new BWTS ○ Cross-training with USCG vessel inspectors

*Budget need target subject to change based on sal/ben changes, indirect rate changes, costs to implement fee programs, and other factors since FY14 calculations.