Comparative Analysis of Watercraft Inspection and Decontamination Requirements along the Lower Colorado River

Terra Bowling, J.D., Research Counsel II
Stephanie Otts, J.D., M.S.E.L. Director

National Sea Grant Law Center
University of Mississippi School of Law

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I. Introduction

Invasive species, and especially those in aquatic systems, do not observe political boundaries. As such, states must work together to limit the introduction, spread, and impact of these species. Invasive species can be spread in many ways, both intentionally and unintentionally. Trailered recreational boats are an important vector, or pathway, in the spread of aquatic invasive species. Aquatic invasive species often “hitchhike” on boats as they move across marine or inland waters; on boats and trailers as they are moved between waters; and on equipment (bait buckets, waders, scuba tanks, anchors, etc.) used in recreational activities.

Quagga mussels have spread rapidly in the Colorado River watershed since the discovery of quagga mussels in Lake Mead, Lake Mojave, and Lake Havasu in 2007. Federal and state agencies have dedicated significant resources to prevention and containment efforts, including watercraft inspection and decontamination (WID) programs. State law in Arizona, California, and Nevada prohibits the possession, importation, shipment, or transport of mussels. Although no state has a statewide mandatory inspection program, boats traveling on public highways in Nevada must have drain plugs removed and open during transport. Arizona requires boats leaving Lake Havasu be cleaned, drained, and dried. California delegates much of the responsibility for preventing and managing mussel infestations to local water body managers.

Management efforts are complicated by the fact that the Lower Colorado River (LCR) is a highly inter-jurisdictional management area. This poses significant legal and regulatory challenges as no single entity has management authority over the area or the relevant activities, such as boating. Coordination among jurisdictions is essential to preventing the further spread of mussels and other invasive species of concern.

There are twenty-one government entities with jurisdiction along the LCR downstream of Lake Mead.

- Four federal agencies within the U.S. Department of Interior: Bureau of Land Management, Bureau of Reclamation, U.S. Fish and Wildlife Service, National Park Service
- Six state agencies across the three states: California Department of Fish and Wildlife, California Department of Food and Agriculture, Arizona Game and Fish Department, Arizona State Parks, Nevada Department of Wildlife, and Nevada Department of Conservation and Natural Resources
- Three Tribal Governments: Fort Mojave Indian Tribe, Colorado River Indian Tribes, and Chemehuevi Indian Tribe.
- Eight municipalities: Clark County in Nevada; City of Needles and San Bernardino, Riverside, and Imperial Counties in California; Lake Havasu City, Bullhead City and Mojave County in Arizona.

As each individual government entity acts independently to enact laws and regulations governing the people, places, and activities within their respective jurisdictions, inconsistencies and gaps can arise if there is no overarching set of objectives and procedures to guide policymaking. State WID laws and regulations can provide this framework. Western states are working through a number of organizations, including the Western Regional Panel on Aquatic Nuisance Species and the Western Governors Alliance, to harmonize WID requirements and protocols to lay the foundation for
interstate and regional partnerships. Rather than creating their own legal provisions from scratch, other levels of government should consider building upon the foundation laid by the states through the incorporation of state law or adoption of parallel requirements. Such efforts would support and reinforce state legal requirements, address geographic gaps, and increase capacity for program implementation and enforcement.

To help lay a foundation for future discussions among federal, state, tribal, and local entities with jurisdiction along the LCR, the National Sea Grant Law Center received funding from the U.S. Fish and Wildlife Service to conduct an analysis of current laws and regulations of these twenty-one jurisdictions to identify existing legal authorities that could support state efforts to implement consensus WID policies. This report starts by summarizing the legal framework in the three states. The authority of the federal land management agencies, local governments, and tribal governments is then examined in turn. Opportunities to increase coordination and cooperation are highlighted and discussed for each level of government.

II. State WID Programs

Arizona

The Arizona Fish and Game Department (AFGD) has authority to manage the state’s Watercraft Inspection and Decontamination (WID) program. Aquatic invasive species are defined in statute as “any species that is not native to the ecosystem under consideration and whose introduction or presence in this state may cause economic or environmental harm or harm to human health.” This definition, however, excludes (1) nonindigenous species lawfully or historically introduced for sport fishing recreation; and (2) species introduced pursuant to Title 17 (“AIS law”). Director’s Order 1 sets forth the listing of AIS for Arizona. Director’s Order 2 sets forth the list of waters or locations where listed AIS are suspected or known to be present.

Except as authorized by AGFD, it is unlawful for any person to “possess, import, ship, or transport” an AIS into or within the state. However, the AGFD may authorize the possession and transport of AIS for the purposes of identification, sampling, testing, and disposal. State law prohibits the placement of equipment, watercraft, vessel, or conveyance “that has been in water or location where AIS are present within the proceeding 30 days without first decontaminating.”

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1 For more information about this harmonization effort, see http://nsglc.olemiss.edu/projects/model-legal-framework/index.html
2 ARIZ. REV. STAT. ANN. § 17-255.
3 Id.
6 ARIZ. REV. STAT. ANN. § 17-255.02.
7 Id. § 17-255.04.
8 Id. § 17-255.02.
The AGFD may “authorize and establish lawful inspections of watercraft, vehicles, conveyances and other equipment to locate the aquatic invasive species.”\(^9\) Conveyance “means a device designed to carry or transport water. Conveyance includes, but is not limited to, dip buckets, water hauling tanks, and water bladders.”\(^10\) Equipment “means an item used either in or on water; or to carry water. Equipment includes, but is not limited to, trailers used to launch or retrieve watercraft, rafts, inner tubes, kick boards, anchors and anchor lines, docks, dock cables and floats, buoys, beacons, wading boots, fishing tackle, bait buckets, skin diving and scuba diving equipment, submersibles, pumps, sea planes, and heavy construction equipment used in aquatic environments.”\(^11\) This authority is broad enough to enable the AGFD to establish inspection stations at specific locations. Conveyances, however, are not explicitly required to stop and submit to an inspection.

Arizona law provides for the certification of personnel to conduct inspections. Pursuant to AGFD regulations, “Certified Agents” are authorized to inspect conveyances for the purposes of determining compliance with AIS laws and regulations. Certified agent “means a person who meets Department standards to conduct inspections authorized under [Ariz. Rev. Stat.] § 17-255.01(C)(1).”\(^12\) There are no explicit references to the certification of personnel to provide decontamination services.

The AGFD may order or require the decontamination of watercraft, vehicles, conveyances, and equipment.\(^13\) AGFD regulations require any person removing a watercraft, vehicle, conveyance, or equipment from any listed waters to:

- Remove all clinging material such as plants, animals, and mud;
- Remove all plugs and other valves or devices that prevent water drainage from all compartments that may retain water, such as ballast tanks, ballast bags, bilges, and ensure plugs or devices remain removed or open during transport; and
- If no plugs or barriers exist, take reasonable measures to drain or dry all compartments or spaces that may retain water. Reasonable measures include, but are not limited to, emptying bilges, application of absorbents, or ventilation.\(^14\)

Director’s Order 3 establishes more specific cleaning protocols depending on the use of the watercraft.\(^15\) For example, there are provisions for watercraft that can not be completely drained. For watercraft or conveyances that have been in long-term use, there are additional protocols, such

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\(^9\) Id. § 17-255.01.
\(^10\) ARIZ. ADMIN. CODE R12-4-901.
\(^11\) Id.
\(^12\) Id.
\(^13\) ARIZ. REV. STAT. ANN. § 17-255.01.
\(^14\) ARIZ. ADMIN. CODE R12-4-902.
as contacting the AIS Program to schedule inspection and decontamination (if required) within 48 hours of departure from a waterbody. The order also establishes cleaning protocol for equipment.

Arizona law authorizes both civil and criminal penalties for violations of the WID program. All violations are subject to a civil penalty of not more than $500. Additionally, a person found in violation of a decontamination order issued under Ariz. Rev. Stat. § 17-255.01(C)(2) must pay “all costs not exceeding fifty dollars incurred by this state to decontaminate any watercraft, vehicle, conveyance or other equipment on which aquatic invasive species were present.” Such funds are to be deposited in the game and fish fund. A person who knowingly releases, places, or plants an aquatic invasive species (a violation of Ariz. Rev. Stat. § 17-255.02(2)) is guilty of Class 2 misdemeanor. In such cases, the ADFG may also bring a civil action to recover damages and costs against the violator. Any funds recovered are to be deposited in the game and fish fund.

The AGFD has broad authority to enter into agreements to facilitate cooperation or address management issues. The AGFD may enter into cooperative agreements “with the federal government, with other states or political subdivisions of the state and with private organizations for the construction and operation of facilities and for management studies, measures or procedures for or relating to the preservation and propagation of wildlife and expend funds for carrying out such agreements.”

Arizona State Parks has authority to manage state parks in Arizona, including the parks below within the Lower Colorado River:
- Lake Havasu State Park
- Havasu Riviera State Park
- Cattail Cove State Park
- River Island State Park
- Buckskin Mountain State Park

This authority includes the ability to restrict the use of watercraft. State regulations provide that “A person shall not moor or launch a watercraft from a shore within a state park if the Director has determined that it is in the best interest of the state park to prohibit mooring or launching of watercraft and has posted notice of the prohibition at the shore.”

California

A variety of federal, state, regional, and local agencies operate WID programs at 80 lakes and reservoirs in the state. Local governments that manage reservoirs where recreational, boating, or other fishing activities are permitted are required to develop and implement a program to prevent the introduction of dreissenid mussels. There are reciprocal agreements among some local WID

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16 ARIZ. REV. STAT. ANN. § 17-255.03.
17 Id.
18 Id.
19 Id.
20 Id. § 17-231.
21 ARIZ. ADMIN. CODE R12-8-114.
22 CAL. FISH & GAME CODE § 2302.
programs. Some watercraft inspection programs in California have alternative inspection and decontamination protocols for local boaters. The CDFW, however, does not have direct oversight over these programs.

California’s WID program is limited in scope by statute to dreissenid mussels. The California Legislature has designated several invasive fish and crustaceans as “restricted live wild animals” by statute. CDFW has the authority to list additional species by regulation, and the CDFW has exercised this authority to list zebra and quagga mussels as restricted animals. California law does not provide express authority to identify waters and locations affected by AIS; however, the CDFW is authorized to conduct inspections of state waters for the presence of dreissenid mussels and may close or restrict access if their presence is detected.

It is unlawful in California to import, transport, or possess restricted live wild animals. It is also unlawful to “possess, import, ship, or transport in the state, or place, plant, or cause to be placed or planted in any water within the state, dreissenid mussels.” Restricted species are prohibited “except as authorized by the department.” CDFW may authorize possession and transport for the purposes of identification, sampling, testing, and disposal. There is no requirement to Clean, Drain, and Dry, although California’s outreach and education materials encourage boaters to do so.

CDFW may conduct inspections of conveyances. In order to do so, CDFW is authorized to temporarily stop conveyances on any roadway or waterway. This authority would presumably enable the CDFW to set up an inspection station in a particular location. In addition, the California Department of Food and Agriculture has the authority under the California Food & Agriculture Code to set up border protection stations at which they may inspect for invasive species. CDFW may require that conveyances removed from, or introduced to, affected waters be inspected, quarantined, or disinfected. CDFW has the authority to “[o]rder that areas in a conveyance that contain water be drained, dried or decontaminated pursuant to procedures approved by the department.” CDFW may impound or quarantine a conveyance “in locations designated by the department for up to five days or the period of time necessary to ensure that dreissenid mussels can no longer live on or in the conveyance.”

Although the use of seals is not required by state law or regulations, watercraft bands are used throughout California for a variety of purposes. Bands may be attached to a watercraft that (1) has been quarantined per Cal. Fish & Game Code § 2031, (2) failed an inspection, (3) is required to undergo a drying period, or (4) passed an exit inspection. CDFW regulations state that “Tags,

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23 Id. § 2301.
24 Id. § 2118.
26 CAL. FISH & GAME CODE § 2301.
27 Id. § 2118.
28 Id. § 2301.
30 CAL. FISH & GAME CODE § 2301.
31 Id. § 2301.
32 Id.
stickers, or other methods used to identify a conveyance as quarantined shall not be tampered with or destroyed prior to the conveyance being released from quarantine by the [CDFW].”

California law does not expressly authorize third parties to provide inspection and decontamination services. State law requires owners and managers of reservoirs where recreation, boating, or fishing activities are permitted to assess the vulnerability of the reservoir for introduction of dreissenid mussels and implement a program to prevent the introduction of mussels. At a minimum, the program must include public education, monitoring, and the management of the permitted recreational, boating, or fishing activities.

California law provides for civil penalties. Any person who violates the Cal. Fish and Game Code § 2301 (dreissenid mussel provision) and related CDFW regulations is subject to a maximum penalty of $1,000, which is to be imposed administratively by CDFW. The minimum penalty is $100. The owner of a conveyance involved in the violation of a quarantine may be held responsible for the violation, impoundment, and quarantine. CDFW regulations also set forth the administrative penalty and appeal procedures.

California imposes a Quagga and Zebra Mussel Infestation Prevention Fee, collected through watercraft registration fees. Revenue from the fee goes into the Harbors and Watercraft Revolving Fund and may be used to cover some CDFW programmatic costs and to provide financial assistance to entities implementing dreissenid mussel infestation prevention plans.

Nevada

The Nevada Department of Wildlife (NDOW) manages the state’s WID program. The Nevada Department of Conservation and Natural Resources has the authority to manage AIS in Nevada State Parks. NDOW may enter into cooperative or reciprocal agreements with federal and state agencies, local governments, corporations, and individuals to carry out NDOW policies.

AIS “means an aquatic species which is exotic or not native to [Nevada] and which the [NDOW] has determined to be detrimental to aquatic life, water resources, or infrastructure for providing waters in [Nevada].” NDOW has by regulation designated species in the following categories: aquatic invasive species and injurious aquatic species. In addition, NDOW restricts the importation, transportation, and possession of certain additional listed species. NDOW has authority to identify an “impaired body of water,” which is any body of water within Nevada or in another state that contains an AIS.

33 Id.
34 Id.
35 Id.
36 CAL. CODE REGS. tit. 14, § 672.1
37 Id.
38 Id.
39 Id.
40 CAL. HARB. & NAV. CODE § 675.
41 NEV. REV. STAT. § 488.035.
42 Id. § 488.530.
Nevada prohibits the importation, transportation, and possession of listed aquatic invasive species.\(^ {43} \) Nevada law makes it unlawful for any person to launch a vessel into a body of water subject to an inspection program without first complying with the program.\(^ {44} \) In addition, it is unlawful to leave an impaired water and launch on another water of the state without first decontaminating the conveyance.\(^ {45} \) NDOW has statutory authority to approve the otherwise unlawful possession, importation, shipment and transport of aquatic life and wildlife. NDOW regulations authorize the issuance of scientific permits to facilitate possession and transport for research purposes.\(^ {46} \)

NDOW may authorize inspection programs and check stations in order to conduct inspections. The owner, operator, or person in control of a vessel or conveyance must stop at any mandatory inspection station.\(^ {47} \) It is unlawful in Nevada to refuse to comply with any requirements of the NDOW with respect to the inspection program.\(^ {48} \) Officers are authorized to stop and inspect a vessel or conveyance for the presence of AIS or proof of a required inspection: (1) before being launched into a water of the state; (2) before departing from a water of the state; (3) if visibly transporting any AIS or aquatic plant material; or (4) upon reasonable belief that an AIS or aquatic plant material is present.\(^ {49} \) Peace officers may order decontamination, and NDOW and others can perform decontaminations through a NDOW-approved inspection program.

The required decontamination as set forth by the NDOW in regulations is basically a self-decontamination following the Clean, Drain, and Dry guidelines. A person required to decontaminate a vessel or conveyance must either decontaminate at an AIS inspection station or self-decontaminate by following these procedures: (1) inspect all exposed surfaces; (2) remove and kill all visible AIS; (3) remove all visible aquatic plant material and debris; (4) inspect, clean, and dry each item on the vessel or conveyance; (5) drain all water; (6) wash the vessel and conveyance with high-pressure hot water; and (7) dry for the period recommended by the 100th Meridian Initiative’s Drying Time Estimator.\(^ {50} \) All drain plugs, drain valves, and other devices used to control the draining of water from the vessel or conveyance, and from any equipment on the vessel or conveyance, must be removed or opened while transporting the vessel or conveyance on public roads.\(^ {51} \)

Peace officers are authorized to impound or quarantine a vessel or conveyance if an inspection indicates the presence of AIS or aquatic plant material or the owner, operator, or person in control refuses to submit to an inspection or comply with a decontamination order.\(^ {52} \) By statute, the owner

\(^{43}\) Nev. Admin. Code § 503.110.
\(^{45}\) Id. § 488.530.
\(^{46}\) Nev. Admin. Code § 503.110.
\(^{48}\) Id. § 488.530.
\(^{49}\) Id.
\(^{50}\) Nev. Admin. Code § 488.520.
\(^{51}\) Id. 488.526.
of a vessel or conveyance that is impounded is responsible for all costs associated with that impoundment.  

Under existing NDOW inspection program protocols, inspectors provide a signed receipt (carbon copy to owner) for watercraft that are decontaminated. Receipts may also be provided following an inspection if the watercraft is being transported out of state. Watercraft are sealed upon full decontamination and supplied with a seal number. Watercraft may also be sealed following an inspection if the watercraft is being transported out of state.

Nevada provides for both civil and criminal penalties. A defendant convicted of knowingly or intentionally introducing, causing to be introduced, or attempting to introduce an AIS or injurious aquatic species into state waters is required to pay a civil penalty of at least $25,000 but not more than $250,000. The money must be deposited into the Wildlife Fund Account and is to be used by NDOW for eradication and restoration costs. A person who knowingly or intentionally introduces, causes to be introduced, or attempts to introduce an AIS or injurious aquatic species into state waters is guilty of a misdemeanor. The maximum statutory penalty for a misdemeanor conviction is 6 months in prison, a $1,000 fine, or both. Community service may also be imposed. Subsequent offenses are classified as Category E felonies punishable by one to four years in prison and a $5,000 fine.

Revenue to support the AIS program is generated through an AIS decal program. It is unlawful to operate a vessel on state waters without an AIS decal attached. AIS decals are issued by NDOW on an annual basis following the payment of an AIS fee. The AIS fee for a motorboat is $12. For vessels, other than motorboats, the fee is $5. The fees are deposited in the Wildlife Account and are used by the NDOW for enforcement of the AIS provisions and for education about and management of AIS.

The Nevada Department of Conservation and Natural Resources has the authority to manage AIS in Nevada State Parks, including the Big Bend of the Colorado State Recreation Area located on the Lower Colorado River.
III. Federal Land Management Agencies

Four federal agencies have legal authority to address watercraft movement along the Lower Colorado River: the National Park Service, Fish and Wildlife Service, Bureau of Land Management, and Bureau of Reclamation. The agencies have general authority to manage lands under their jurisdiction, as well as regulations governing particular units. The agencies may incorporate state law and enforce certain state laws on federal lands. The sections below detail how the agencies’ statutory authority can be drawn upon to adopt regulations, agency manuals, and unit management policies to address invasive species threats from recreational watercraft.

*National Park Service – National Parks*

General Authority

Congress has provided the Park Service with broad authority to protect and manage the nation’s public parks. The National Park Service Organic Act directs the National Park service “to conserve the scenery, natural and historic objects and wild life [sic] in the System units and to provide for the enjoyment of the scenery, natural and historic objects and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” The NPS may promulgate regulations for National Park units, specifically for boating and other activities on or relating to water located within System units, including water subject to the jurisdiction of the United States. NPS regulations apply across lands and waters administered by the National Park Service.

NPS policies and director’s orders also address invasive species management. The NPS Management Policies (2006) sets forth the agency’s key principles for management of the National Park System and individual units. With respect to biological resource management, NPS Management Policy 4.4.1 states that the NPS “will maintain as parts of the natural ecosystems of parks all plants and animals native to park ecosystems.” A key means of achieving this is “minimizing human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them. Policy 4.4.4 states “Exotic species will not be allowed to displace native species if displacement can be prevented.”

On May 13, 2013, the Director of NPS issued an order, which spoke to the management of invasive species in and around designated wilderness, to supplement Policy 4.4.4.2. The order declared that “Parks should be managed with the goal of early detection and rapid response in areas adjacent to wilderness to prevent the spread into wilderness” and recognized that regulations may need to be put in place within a park’s compendium to prevent introduction and spread. The order states that parks should use Integrated Pest Management to guide invasive species planning and implementation.

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64 54 U.S.C. § 100101.
65 36 C.F.R. § 1.2(a).
At the System-level, the NPS regulations prohibit “introducing wildlife, fish or plants, including their reproductive bodies, into a park area ecosystem.” This is a broad prohibition that applies to native, as well as non-native, species. The taking of wildlife, except as authorized for trapping or hunting, is prohibited. Policy 4.4.4.1 states “In general, new exotic species will not be introduced into parks.”

The superintendent may establish conditions and procedures for transporting lawfully taken wildlife through the park area. NPS prohibits, “Possessing or using as bait for fishing in fresh waters, live or dead minnows or other bait fish, amphibians, nonpreserved fish eggs or fish roe, except in designated waters. Waters which may be so designated shall be limited to those where nonnative species are already established, scientific data indicate that the introduction of additional numbers or types of non-native species would not impact populations of native species adversely, and park management plans do not call for elimination of non-native species.”

Park superintendents may close parks or portions of parks to public use or restrict specific activities within certain areas if necessary to maintain public health of safety, protect environmental or scenic values, or protect natural or cultural resources. With respect to exotic species that are already present in parks, NPS Policy 4.4.4.2 states that such species “will be managed – up to and including eradication” if control is prudent and the species meets one of seven designated characteristics (e.g., damages cultural resources). Everyone on park lands must comply with pest management policies. NPS and units must use integrated pest management.

NPS regulations specifically address the authority of NPS to inspect vessels. An authorized person may at any time stop and/or board a vessel to examine documents, licenses or permits relating to operation of the vessel, and to inspect the vessel to determine compliance with regulations pertaining to safety equipment, vessel capacity, marine sanitation devices, and other pollution and noise abatement requirements. This authority would extend to inspection and decontamination programs for invasive species.

State Collaboration

NPS has the authority to cooperate with state agencies to enforce state invasive species control laws within parks. State law will apply to NPS units unless those units are under exclusive federal jurisdiction or if the state law conflicts with federal law. NPS has the authority to enter into cooperative agreements for activities protecting park natural resources, which could include agreements with state agencies. For example, Lake Mead NPS in Nevada works with the Nevada

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67 36 C.F.R. § 2.1(a)(2).  
68 Id. § 2.2.  
69 Id. § 2.3(d)(2).  
70 § 1.5(a)(1).  
71 NAT’L PARK SERV. POLICY 4.4.5.  
72 Id. 4.4.5.2.  
73 36 C.F.R. § 3.4(a).  
75 Id. § 101702.
Department of Wildlife to provide voluntary inspection and decontamination for park visitors at key access points.

Units

At the unit level, Lake Mead National Recreation Area is the only National Recreation Area in the Lower Colorado River basin. The NPS may limit the use of personal watercraft (PWC) within the unit. “The Superintendent may limit, restrict, or terminate access to the areas designated for PWC use after taking into consideration public health and safety, natural and cultural resource protection, and other management activities and objectives.”

U.S. Fish and Wildlife Service – National Wildlife Refuge System

General authority

Congress has provided the U.S. Fish and Wildlife Service (FWS) with broad authority to protect and manage the nation’s fish, shellfish, and wildlife resources. The FWS administers the National Wildlife Refuge System. Congress states that the “mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” In administering the System, Congress directs the Secretary of Interior to, among other things, “ensure that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans.”

Statutes and FWS regulations govern the removal, transport, and introduction of species on System lands. 16 U.S.C. § 668dd(c) imposes a blanket prohibition on the removal of plants and animals from System lands. “No person shall disturb, injure, cut, burn, remove, destroy, or possess any real or personal property of the United States, including natural growth, in any area of the System; or take or possess any fish, bird, mammal, or other wild vertebrate or invertebrate animals or part or nest or egg thereof within any such area; or enter, use, or otherwise occupy any such area for any purpose” unless such activity is permitted under FWS regulations or other law. Regulations provide that no person may take animals or plants on any national wildlife refuge, except as authorized under 50 C.F.R. 27.51 and parts 31, 32, and 33 of subchapter C. Plants and animals from outside of the national wildlife refuge must not be introduced, liberated, or placed on any national wildlife refuge except as authorized. There are no generally applicable regulations directly addressing invasive species threats within the System. A few Refuges, however, do have area-specific regulations.

Statute and FWS regulations address activities within System lands. Public recreation is to be permitted within the System “only to the extent that is practicable and not inconsistent with other

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76 36 C.F.R. § 7.48(f)(4).
78 Id. § 668dd(a)(4)(B).
79 50 C.F.R. § 27.51.
80 Id. § 27.52.
previously authorized Federal operations or with the primary objectives for which each particular area is established.”

All areas included in the National Wildlife Refuge System are closed to public access unless the FWS has made a determination that such use is compatible and opened the area to public use by regulation, permit, or public notice. Refuge managers may close or curtail refuge uses within an area opened to public access to protect the resources of the area. The use of boats in national wildlife refuges is prohibited unless authorized by FWS. Many refuges have regulations setting forth the types of boats allowed and when/how they can be used.

The Refuge Manual addresses Exotic Species Introduction and Management. The manual identifies the policy of the USFWS to prevent the introduction of nonnative species, except as a bio-control agent compatible with refuge objectives. The Interagency, Intergovernmental and International Activities, Environmental Quality Series of FWS policy manuals contains a section that details the FWS policy on pest management, and establishes the use of Integrated Pest Management plans. Integrated Pest Management Plan (IPM) is defined as a sustainable approach to managing pests that uses biological, cultural, physical, and chemical tools in ways that minimizes health, environmental, and economic risks. The manual defines pests as “living organisms, including invasive plants and introduced or native organisms, that may interfere with achieving our management goals and objectives on or off our lands, or that jeopardize human health or safety.”

The Service Manual section on Biological Integrity, Diversity, and Environmental Health addresses the FWS policies on preventing the introduction and spread of invasive species. The manual notes that the FWS does not introduce nonnative or naturally extirpated species, unless essential for survival of a species and prescribed in an ESA recovery plan or if introduction is essential to control invasive species and is mandated in an IPM plan. The FWS prevents the introduction of and detects and controls invasive species. The Service aims to restore native species and habitat conditions in areas compromised by invasive species. IPM strategies balance control methods with their impacts on environmental health. The Service Manual identifies FWS policies on Managing Invasive Species Pathways. The FWS has a policy to develop and implement a quality-control planning process in the Fisheries Program through Hazard Analysis and Critical

82 50 C.F.R. § 25.21(a).
83 Id. § 25.21(e).
84 Id. § 27.32(a).
85 Chapter 7 RM 8.
87 569 FW 1 § 1.2.
88 569 FW 1 § 1.3.
90 Id. at 3.14 F.
91 Id. at 3.16 A.
Control Point (HAACP) plans in order to reduce or prevent the spread of invasive and non-target species.92

State Collaboration

State hunting, fishing, and wildlife laws apply within National Wildlife Refuges, as Congress preserved some state authority over areas within the System. For instance, “Regulations permitting hunting or fishing of fish and resident wildlife within the System shall be, to the extent practicable, consistent with State fish and wildlife laws, regulations, and management plans.”93

Unit Management

The National Wildlife Refuge System Improvement Act of 1997 requires that every refuge develop a Comprehensive Conservation Plan (CCP) and revise it every 15 years, as needed.94 CCPs are to ensure that the refuge is managed to fulfill the purposes for which it was established. Once approved, the FWS must “manage the refuge or planning unit in a manner consistent with the plan.”95

- **Bill Williams River National Refuge:** Regulations authorize sport fishing in accordance with state law only in areas designated as “open.” Personal watercraft, as defined by State law, and airboats and hovercraft are prohibited on all waters within the boundaries of the refuge. All refuge waters are wakeless speed zones.96

- **Havasu National Wildlife Refuge:** Sport fishing in accordance with state regulations is authorized. The use of all air-thrust boats and/or air-cooled propulsion engines, including floating aircraft, is prohibited. Overnight boat mooring and shore anchoring is prohibited unless actively fishing as defined by state regulations. Havasu NWR has specific regulations for certain areas:
  - In Topock Marsh, personal watercraft is prohibited, and sport fishing is only allowed in designated times and areas.
  - In all waters of the Colorado River within Havasu NWR from the south regulatory buoy line to the north regulatory buoy line, the following applies:
    - Personal watercraft is prohibited as indicated by signs or regulatory buoys in all backwaters;
    - Watercraft speed is limited to no wake as indicated by signs or regulatory buoys in all backwaters; and
    - Water-skiing, tubing, wake boarding, or other recreational-towed devices is prohibited.

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93 16 U.S.C. § 668dd(m).
94 Id. § 668dd(e).
95 Id. § 688dd(e)(1)(E).
96 50 C.F.R. § 32.22.
For improved areas within the refuge, including the Mesquite Bay areas, Castle Rock, the Diving Cliffs, Catfish Paradise, Five Mile Landing and North Dike, entry of all motorized watercraft in all three bays of the Mesquite Bay areas is prohibited as indicated by signs or regulatory buoys. Improved areas are day-use only and are open from ½ hour before legal sunrise to ½ hour after legal sunset. Fishing and launching watercraft is allowed at these and other areas 24 hours a day.

- **Lake Havasu Wildlife Refuge in Nevada:** Only dead vegetation or materials brought from off refuge may be used for making or fixing hunt blinds. The cutting, pulling, marking or removing vegetation is prohibited.97

**Bureau of Land Management – Public Lands**

**General Authority**

Congress has provided the Bureau of Land Management (BLM) with broad authority to protect and manage the nation’s public lands that are not reserved for management by the United States Forest Service, Bureau of Reclamation, National Park Service, or Fish and Wildlife Service. The Federal Land Policy and Management Act (FLPMA) is BLM’s key governing statute. FLPMA declares “the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.”98

The FLPMA provides that the Secretary must manage the public lands under principles of multiple use and sustained yield, in accordance with the land use plans developed by him under 43 U.S.C. 1712 when they are available, except that where a tract of public land has been dedicated to specific uses according to any other provisions of law it shall be managed in accordance with such law.99 The Director of BLM may also withdraw lands in order to preserve its ecological values.100 Under FLPMA the Secretary of Interior, and thus BLM under 43 U.S.C. § 1731(b), “shall issue regulations necessary to implement the provisions of this Act with respect to the management, use, and protection of the public lands, including the property located thereon.”101 The BLM may close or restrict the use of designated public lands to protect persons, property, and public lands and resources.102 The State Director may establish supplementary requirements to provide for the protection of persons, property, and public lands and resources.103

The BLM has promulgated a regulation that is specific to controlling invasive species. However, it only applies to wilderness areas within BLM managed lands, and does not give authority to

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97 50 C.F.R. § 32.22(A)(10)(vi).
99 Id. § 1732(a).
100 Id. § 1714.
101 Id. § 1733(a).
102 43 CFR § 8364.1.
103 Id. § 8365.1–6.
regulate aquatic invasive species like zebra and quagga mussels. “BLM may prescribe measures to control fire, noxious weeds, non-native invasive plants, insects, and diseases.”104 The *Wild and Scenic Rivers - Policy and Program Direction for Identification, Evaluation, Planning, and Management* (MS-6400) is the only BLM policy manual that speaks directly to aquatic invasive species policy. It states that a full range of manual and chemical prevention and control methods may be used to combat terrestrial and aquatic invasive species. MS-6400 lists thee other BLM manuals (MS-9011, MS-9014, MS-9015) and a BLM handbook (H-1740-2), which outline the prevention and control methods. However, MS-9011, MS-9014, MS-9015 and other BLM manuals generally confine invasive species concerns to plants

Other BLM manuals address invasive species management. The Travel and Transportation Manual BLM Manual 1626 states that the BLM is not to authorize, fund, or carry out actions likely to cause or promote the introduction or spread of invasive species on transportation corridors (cites Executive Order 13112). BLM Manual 1601 states that invasive species in a planning area may require active restoration activities. Renewable Resource Improvements and Treatments identifies Executive Order 13112 as source and identifies invasive species control as a management objective. BLM Manual 6100 states that BLM will manage weeds and other invasives through IPM approach. BLM Manual 6340 allows the manipulation of vegetation through otherwise prohibited means (prescribed fire, chemical application) to control nonnative species. BLM Manual 9211 identifies invasive species management as a goal for restoration activities under the Great Basin Restoration initiative.

**State Collaboration**

The BLM has authority to cooperate with state law enforcement agencies, including the authority to enter into memoranda of understanding with state agencies to allow BLM to enforce state laws on public lands and associated waters. “In connection with the administration and regulation of the use and occupancy of the public lands, the Secretary is authorized to cooperate with the regulatory and law enforcement officials of any State or political subdivision thereof in the enforcement of the laws or ordinances of such State or subdivision. Such cooperation may include reimbursement to a State or its subdivision for expenditures incurred by it in connection with activities which assist in the administration and regulation of use and occupancy of the public lands.”105

**Bureau of Reclamation – Western Water and Hydropower Resources**

**General Authority**

Congress has provided the Bureau of Reclamation (Reclamation) with authority to manage, develop, and protect water and hydropower resources in the western United States. Under the Reclamation Act of 1902, the Secretary of Interior “is authorized to perform any and all acts and to make such rules and regulations as may be necessary and proper for the purpose of carrying out the provisions of this Act into full force and effect.”106 “The Secretary of the Interior shall issue

104 43 C.F.R. 6304.22.
regulations necessary to maintain law and order and protect persons and property within Reclamation projects and on Reclamation lands."\textsuperscript{107}

All Reclamation facilities, lands, and waterbodies are open to lawful use by the public unless they are closed to public use by Reclamation.\textsuperscript{108} Reclamation may close all or portions of Reclamation facilities, lands, and waterbodies for the “Protection of public health and safety, cultural resources, natural resources, scenic values, or scientific research activities.”\textsuperscript{109} Users of Reclamation waters must “comply with Federal, State, and local laws applicable to the operation of a vessel, other watercraft, or seaplane on Reclamation waters, and with any restrictions established by an authorized official.” The operation of a vessel, other watercraft, or seaplane is prohibited in areas closed to the public.\textsuperscript{110}

Reclamation detects and monitors invasive mussels in the Western U.S. The agency has manuals concerning BLM responsibilities to manage pest invasive species. ENV PO2 specifies Reclamation is responsible for the identification and proper management of pests on Reclamation lands and at Reclamation-owned facilities in accordance with the national policies set out in Federal Insecticide, Fungicide and Rodenticide Act; Federal Noxious Weed Act; Carlson-Foley Act; and applicable State and local laws and standards. These responsibilities are to be fully considered in the development of a local Integrated Pest Management Program. ENV 01-01 provides directives and standards for Reclamation personnel involved with the implementation of Pest Management/Resource Protection plans for the operation and maintenance of Reclamation lands and facilities. PEC 10-29 requires contractors to effectively control undesirable plants and animals on Federal project lands, project waters, and project works for which they have operation and maintenance responsibilities.

The Bureau of Reclamation has a technical memorandum describing guidelines developed to address the transmission of invasive species through equipment movement, including vessel and vehicle movement. The document was not intended to outline the agency’s policy. It was intended as a reference manual only. The memorandum focuses on equipment cleaning and inspection.\textsuperscript{111}

Reclamation released a document that outlined actions to consider prior to detection of invasive mussel species. Those actions include developing coordinated response plans, performing infestation risk assessments, performing facility vulnerability assessments, and implementing monitoring programs.\textsuperscript{112}

\textsuperscript{107} Id. § 373b.
\textsuperscript{108} 43 C.F.R. § 423.10.
\textsuperscript{109} Id. § 432.12(a)(2).
\textsuperscript{110} Id. § 423.38.
\textsuperscript{112} Bureau of Reclamation, Dep’t of Interior, Management Options for Quagga and Zebra Mussel Infestations, \textit{available at} http://www.usbr.gov/mussels/activities/docs/MusselManagementOptions.pdf.
Regional Management

The following are examples of how Reclamation has tried to prevent invasive species introduction and spread at the regional level.

- The Upper Colorado Region implemented a prevention and response plan that calls for the inspection and screening of watercraft entering project waters within the region. The planned also calls for the quarantine and decontamination of any watercraft found to be at-risk.\textsuperscript{113}

- The Lower Colorado River Region implemented the measures for cleaning vessels outlined in the technical manual described above. The region requires removal of all visible mud, plants, and animals; the removal of water from equipment; and cleaning the equipment with salt water. These measures only apply to equipment, vessels, and vehicles operated by Reclamation.\textsuperscript{114}

IV. Local Governments

Local governments are political subdivisions of the state, created and empowered to exercise such governmental powers granted by the state. Although the extent of their authority varies by state, cities and counties generally have the ability to enact and enforce laws in the exercise of powers expressly granted by law and to protect the welfare, safety, and health of their citizens.\textsuperscript{115} Local governments have a wide range of responsibilities and obligations, including regulating land uses, maintaining roads and public spaces within their jurisdictions, operating drinking water and wastewater treatment facilities, and levying taxes to fund these activities.

Local governments are an important, although often underutilized, actor in state efforts to prevent the spread of AIS from watercraft. Cities and counties have the authority to manage waters within their jurisdictions, including the use of those waters for boating, as well as public access points. They also have regulatory authority over boating-related businesses, such as marinas and recreational outfitters, provided local regulations do not conflict with state law.

Of the eight municipalities along the LCR, all but the City of Needles have at least one ordinance that is related to boating or use of park lands.

Bullhead City, AZ:

- Chapter 5-30 governs personal watercraft rentals (watercraft rental business must obtain a business license and a city properties boat launch annual pass; sets forth requirements for what information must be included in the rental contract).


\textsuperscript{114} Implementation of Measures for the Prevention of Zebra and Quagga Mussel Migration (LC-IOOO ENV-1.10).

\textsuperscript{115} See generally, Power to regulate—In general; extraterritorial authority, 3 Local Government Law § 14:2.
• Chapter 15-38 sets forth policy regarding public access to Colorado River (establishes closure times for access points and prohibits glass beverage containers)

Lake Havasu, AZ:
• Chapter 8-16 governs watercraft (traffic controls, provisions for abandoned watercraft, mooring, restrictions on operations re: safety, permits required for special events).
• Section 11.06.330 states that “It is unlawful to launch or retrieve any motorized watercraft at or in any park unless one of the following exceptions apply: launching or retrieval occurs on designated launching ramps or other facilities provided or launching or retrieval is authorized in writing by the city.”

Mojave County, AZ:
• Section 24.52 requires facilities use permits for use of county park lands.

Imperial County, CA:
• Chapter 2 sets forth boating and swimming regulations (prohibiting uses on certain waters, setting speed limits)
• Section 93001.28 sets forth that regulations governing the use of boats within any park facility may be established and posted by the director.

Riverside County, CA:
• Ordinance No. 530 regulating use of boats on backwaters of Colorado River (prohibition on wake)
• Ordinance No. 629 states that “It shall be unlawful for any person to bathe, swim, boat, water-ski, or otherwise enter into or upon the surface of the water in any irrigation canal, lateral, ditch, or drain in the unincorporated area of the Palo Verde Valley, County of Riverside, State of California, coterminous with the Palo Verde Irrigation District.”

San Bernardino, CA:
• Chapter 2 sets forth boating regulations (speed limits, boat launching areas, littering prohibited, boating hours)
• Sections 28:0304 provides that boats shall be operated and docked only in designated areas.
• Sections 57:0702 authorizes the sheriff to establish access by time of day regulations for Colorado River

Clark County, NV:
• Section 6.12.500 requires excursion boat master license (semi-annual license fee)

These ordinances could provide a foundation from which the municipality could take action to address AIS risks from watercraft. Access point restrictions could include requirements that watercraft be clean, drained, and dry before launch. Existing boating regulations could be amended to require boaters to remove vegetation and drain water, providing an opportunity for local officials to enhance and reinforce state outreach messaging and legal requirements. Ordinances regulating marinas and rental contracts could require businesses to distribute information on state WID programs and expressly include obligations to abide by state inspection and decontamination requirements.
Municipalities wishing to go a step further could enact ordinances to implement local watercraft inspection programs as authorized and allowed under state law. The City of Bellingham, Washington, for example, prohibits the transport and release of AIS in waters within its jurisdiction.\footnote{Bellingham Municipal Code 12.12.280(2).} The launching of watercraft contaminated with AIS is also prohibited.\footnote{Id.} The ordinance also authorizes city staff to implement an AIS education and inspection program and subjects watercraft to inspection by an enforcement officer prior to launch.\footnote{Id. at (4).}

In California, local governments that manage reservoirs where recreational, boating, or other fishing activities are permitted are required to develop and implement a program to prevent the introduction of dreissenid mussels. Lake County, California requires all trailered watercraft to be screened prior to launch to determine whether they present an AIS risk to the water bodies of Lake County.\footnote{Lake County, California Code of Ordinances 15-57.1.} Watercraft that, as a result of the screening process, appear to pose an appreciable risk must be inspected by an authorized inspector.\footnote{Id. 15-57.2(c).} A watercraft owner who refuses to consent to an inspection is not allowed to launch.\footnote{Id. 15-57.3(c)} In Arizona and Nevada, AGFD and NDOW have broad authority to enter into cooperative agreements through which they could provide similar authority to local governments to operate inspection programs.

In 2018, the National Sea Grant Law Center drafted a “Model Local Watercraft Inspection and Decontamination (WID) Ordinance”\footnote{Lisa A. DeBruyckere, Robyn Draheim, Stephanie Showalter Otts, Model Quagga/Zebra Mussel Reciprocal Vessel Certification Program for Clear Lake and Neighboring Lakes in Northern California, Appendix A (2018), available at https://bit.ly/2S0GF4o.} as part of a collaborative project with Creative Resource Strategies, LLC and Lake County, California. Lake County initiated the project to enhance collaboration for mussel prevention among the relevant resource agencies, jurisdictions, and partners that manage Lakes Berryessa, Mendocino, Sonoma, and Clear Lake in northern California. The model local ordinance, which builds upon the Lake County ordinance, is designed to support state and regional implementation of the Model Legal Framework for State Watercraft Inspection and Decontamination Programs.\footnote{See supra note 1.} Local governments along the LCR could adopt this ordinance, or a similar framework, to develop and implement local watercraft programs to support and enhance state efforts.

In addition to supporting state prevention and enforcement efforts, local ordinances can assist with federal efforts to manage AIS pathways associated with recreational activities. For example, BOR regulations require boaters to comply with “Federal, state, and local laws applicable to the operation of a vessel, other watercraft, or seaplane on Reclamation waters.”\footnote{43 C.F.R. § 428.38.} The U.S. Army Corps of Engineers regulations state that “state and local laws and ordinances shall apply on project lands and waters,” including laws and ordinances governing the operation of vessels.\footnote{36 C.F.R. § 327.36.}
developed and adopted in a similar manner, local government ordinances can provide a mechanism and foundation for state, regional, and federal consistency.

V. Tribal Governments

In the United States, Indian tribes are considered “domestic dependent nations” that exercise inherent sovereign authority over their members and territories.\(^{126}\) Indian tribes are possessed of all governmental powers except those they have been expressly required to surrender to the superior sovereign - the United States.\(^{127}\) Indian tribes therefore have authority to enact laws and policies governing tribal affairs, lands, and resources. Any regional effort to strengthen implementation and enforcement of watercraft inspection and decontamination requirements must include the tribes.

Federally recognized Indian tribes have a government-to-government relationship with the federal government and are on equal footing with state governments. Both federal and tribal law applies on Indian reservations. States have no authority over tribal governments unless authorized by Congress.\(^{128}\) Generally speaking, “states may regulate only on matters that are exclusive to non-Indians and that do not affect tribal interests.”\(^{129}\) However, as American Indians are citizens of the United States and the individual states, cities, and counties in which they reside, there is some overlap in authority among state and tribal governments as both are responsible for protecting the health and welfare of their citizens. That said, state law may not be applied where it would interfere with a tribe’s right to establish its own laws or any federal interest.\(^{130}\) Tribes have a right to enact laws and regulations that are stricter or more lenient than state laws.

It is important to note that tribal jurisdiction over non-Indians, even when the conduct takes place on reservation land, is limited and quite complicated. An analysis of the applicability of tribal AIS laws to non-Indians is beyond the scope of this report, but as a general rule, tribes lack jurisdiction over non-Indians,\(^{131}\) Tribes have no inherent authority to criminally prosecute non-Indians,\(^{132}\) except in certain cases involving domestic violence.\(^{133}\) Congress, however, can delegate federal criminal enforcement authority to tribes, which it has done by statute for violations of tribal hunting, trapping, and fishing laws on Indian lands.\(^{134}\) Tribes may exercise civil jurisdiction over non-Indians in some circumstances, such as when non-Indians entered into consensual

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\(^{127}\) 38 Cal. Jur. 3d Indians § 2.


\(^{129}\) Id.

\(^{130}\) Id.


\(^{134}\) 18 U.S.C. §1165.
relationships through commercial dealings and contracts, or when Congress has authorized them to do so.\textsuperscript{135}

Due to the uncertainties surrounding tribal law enforcement, tribes may enter into cross-deputization agreements with federal, state, county, and city governments.\textsuperscript{136} Through such agreements, governments can delegate law enforcement authority to officers of another jurisdiction. Such agreements, for example, enable tribal officers to enforce state laws over Indians and non-Indians or county officers to enforce tribal law.

Of the three tribal governments along the Lower Colorado River, none have any tribal ordinance addressing AIS risks. The Chief Conservation Officer for the Chemehuevi Tribe stated that although the Tribe currently has no watercraft restrictions pertaining to mussels, conservation personnel have received training on quagga and zebra mussels and that the Tribe is interested in providing decontamination services on the reservation.\textsuperscript{137}

Looking beyond the Lower Colorado River area, tribal governments have passed laws addressing AIS risks from recreational watercraft. The Pyramid Lake Paiute Tribe, whose reservation is located 35 miles northeast of Reno, Nevada, has a provision in its Tribal Fishing, Camping, and Boating Regulations which prohibits any person from launching or operating a boat or vessel contaminated with AIS on waters of the Reservation.\textsuperscript{138} All watercraft may be subject to inspection prior to launch.\textsuperscript{139} If during an inspection conditions are found that suggest the watercraft may harbor AIS, the watercraft must be decontaminated before launch.\textsuperscript{140}

\textbf{VI. Conclusion}

Aquatic invasive species prevention efforts are only as good as the weakest link. Watercraft move frequently across jurisdictional lines from federally managed national recreation areas to state parks and Indian reservations to local marinas all across the country. To effectively prevent the introduction and spread of AIS by recreational watercraft, the laws and regulations need to be consistent at all levels of government.

State WID laws can provide the foundation from which to build up (federal), down (local), and sideways (tribal) towards a comprehensive regional framework to address the AIS risks from recreational watercraft. Each government entity has a range of options available to them to enact, incorporate, and adapt state WID requirements within their own legal frameworks to increase consistency and strengthen enforcement. In addition, cooperative agreements and less formal

\textsuperscript{135} Smith, \textit{supra} note 131 at 6-11.


Email communication from Fredrick Rivera, Chief Conservation Officer, Chemehuevi Tribe to Stephanie Otts, Director, National Sea Grant Law Center on August 23, 2019.

\textsuperscript{138} Pyramid Lake Paiute Tribe Fishing, Camping, and Boating Regulations 10.2

\textsuperscript{139} Id. 10.1.

\textsuperscript{140} Id. 10.1.1.
mechanisms, such as memorandum of understanding, can enhance collaboration and cooperation among the various levels of government by clarifying jurisdictional issues and enforcement roles.