National & Regional Management of Aquatic Invasive Species

2017 Quagga and Zebra Mussel Water Agency Summit
February 16-17, 2017

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Aquatic Resources Program Manager,
Tahoe Regional Planning Agency
Introduction

- National Framework
- Regional Coordination
- Tools
- New Partnerships
National Framework

- Aquatic Nuisance Species Task Force
  - Federal Advisory Committee established by US Congress in 1996
  - Prevent and Control AIS
  - Guide National Policy
  - Enhance coordination
    - AIS Management Plans
    - Regional Panels
Regional Coordination

The Regional Panels of the Aquatic Nuisance Species Task Force

- **Western**
  (Members include: AK, AZ, CA, CO, HI, ID, KS, MT, ND, NE, NM, NV, OK, OR, SD, TX, UT, WA, WY and Guam - Estab. 1997)

- **Great Lakes**
  (Members include: IL, IN, MI, MN, NY, PA, OH, WI - Estab. 1991)

- **Northeast**
  (Members include: CT, MA, ME, NH, NY, RI, VT - Estab. 2001)

- **Mississippi River Basin**
  (Members include: AL, AR, CO, IA, IL, IN, KS, KY, LA, MN, MO, MS, MT, NC, ND, NE, OH, OK, PA, SD, TN, TX, VA, WI, WV, WY - Estab. 2002)

- **Mid-Atlantic**
  (Members include: DE, DC, MD, NC, NJ, NY, PA, VA, WV - Estab. 2003)

- **Gulf and South Atlantic**
  (Members include: AL, FL, GA, LA, MS, NC, SC, TX - Estab. 1999)

June, 2010
Graphics by Don MacLean, USFWS
Western Regional Panel

- Nineteen Western States
- Over 50 member organizations interested/charged with managing AIS issues
- Regional coordination and communication
- Quagga/Zebra Action Plan
- Building Consensus in the West
Building Consensus

- Develop a model legal framework for state watercraft inspection and decontamination programs
- Establish better communication
  - Consistent terminology
  - Share ideas, concerns, & lessons learned
Building Consensus

• How it began
  • 2010- National Association of Attorney Generals approached the National Sea Grant Law Center to provide legal education on AIS issues
  • 2011- Workshops began
  • 2012- ANSTF/FWS encouraged Regional Panels to participate
    • WRP members developed a plan to coordinate legal efforts and develop model language
Building Consensus

Why?

- Minimize spread of invasive mussels by watercraft
- Enhance communication
- Build consistency
- Coordinate messaging
- Boaters know what to expect when crossing state lines
Building Consensus

- **Outcomes**
  - Model Legislation
  - Gap Analysis
  - Model Regulations
  - Agreed upon protocols
    - UMPS
    - Monitoring
  - Almost a dozen states made adjustments to build consistency
Building Consensus

Outcomes (Cont'd)

• Consistent messaging
• Shared outreach
• MOU’s
• Reciprocity
• Quality Control
• Western Association of Fish and Wildlife Agencies

Standardized regulations
• Quagga-Zebra Mussel Action Plan for western US waters highest priorities

  • Increased capacity to take action
  • Prevention
  • Early Detection Monitoring
  • Rapid Response
  • Containment and Control existing populations
  • Outreach and Education
QZAP Outcomes

- Funding
- Increased capacity for inspections and decontaminations
- Containment at Lake Mead and Lake Powell
- Mobile Application for inspections

Proposed Watercraft Inspection Stations (by type)

- Highway Inspection Station
- Roving Inspection Stations
- Waterbody Inspection Stations (2015)
- Source Decontamination Station

- Waterbody Inspection Stations (2012 data, most still active)
- California Ag. Inspection Stations - (24/365)
- California Ag. Inspection Stations - (various operating times)

2015 DRAFT
Regional Data Collection System for Watercraft Inspections and Decontaminations
Background

- Developed by Colorado Parks and Wildlife and deployed in 2013

- Started adding western states in 2014
  - New Mexico joined in 2014
  - Utah joined in 2015
  - Nevada, Arizona and Lake Tahoe joined in 2016

- Desktop site and mobile app
Benefits/Uses

- Reduce Risk
- Improved communication about movements and inspections of high risk boats
  - Mussel boat notifications
  - Search for vessel ‘history’
- Real-time data collection
  - Fewer paper forms
  - Quality control of data
- Improved customer service
- Adaptability
Desktop Site

- https://watercraftinspection.org/
- Data entry, viewing, editing, query, reporting
- Administrative Features
  - Account management
## Inspection Index

<table>
<thead>
<tr>
<th>Enter WID Data:</th>
<th>Create An Inspection</th>
<th>Upload An Excel Inspection File</th>
<th>Required Excel Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search For Inspections</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Start Date</th>
<th>End Date</th>
<th>Coordinating Agency Locations Ramps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/2017</td>
<td>2/10/2017</td>
<td>Lake Tahoe, NV - Lake Tahoe, All Ramps</td>
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</table>

<table>
<thead>
<tr>
<th>Inspector No.</th>
<th>Registration</th>
<th>Seal Code</th>
<th>Seal Color</th>
<th>Sticker No.</th>
</tr>
</thead>
<tbody>
<tr>
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<table>
<thead>
<tr>
<th>In / Out</th>
<th>Watercraft</th>
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<tbody>
<tr>
<td>All In/Out Voluntary</td>
<td>All Watercrafts</td>
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<table>
<thead>
<tr>
<th>Risk Factors</th>
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<tbody>
<tr>
<td>Out Of State/Province In 30 Days: Select State or Province</td>
</tr>
<tr>
<td>Dirty, Crusty, Slimy: Complex</td>
</tr>
<tr>
<td>Standing Water</td>
</tr>
<tr>
<td>Ballast Boats</td>
</tr>
<tr>
<td>Last Water Visited: Select State or Province, Select Last Water Visited</td>
</tr>
<tr>
<td>Been In Positive Waters: Select Positive Water</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protocols</th>
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</thead>
<tbody>
<tr>
<td>All Protocols</td>
</tr>
<tr>
<td>Hull: Engine: Anchor: Drain</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bait Present</th>
<th>Bait Type</th>
<th>Bait Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select Bait Type</td>
<td>Select Bait Result</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Decontamination Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full</td>
</tr>
<tr>
<td>Standing Water</td>
</tr>
<tr>
<td>Plant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Invalid Seal Removal Reasons</th>
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</thead>
<tbody>
<tr>
<td>Missing Receipt</td>
</tr>
<tr>
<td>Tampered Seal</td>
</tr>
<tr>
<td>Seal Doesn’t Match Receipt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Batch Reference</th>
<th>Identify Duplicates</th>
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</thead>
<tbody>
<tr>
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<table>
<thead>
<tr>
<th></th>
<th>Apply</th>
<th>Clear</th>
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<tbody>
<tr>
<td>Export Results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancel</td>
<td></td>
<td></td>
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</tbody>
</table>
## Mobile App

**Identify**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
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<tbody>
<tr>
<td>02/10/21</td>
<td>02:32 PM</td>
</tr>
</tbody>
</table>

**Inspector No.** 8888

**Location** NV - Lake Tahoe

**Ramp** Cave Rock

**Registration** NV

**Trailer** NV

Search for Registration/Trailer

**Vessel Type**
## Mobile App

### Contact Type

<table>
<thead>
<tr>
<th>Contact Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance Inspection</td>
<td>Vessels requiring full inspections</td>
</tr>
<tr>
<td>Seal Removal</td>
<td>Arrivals with valid or invalid seals</td>
</tr>
<tr>
<td>Exit Inspection</td>
<td>Departures receiving inspections &amp; seals</td>
</tr>
<tr>
<td>Off-Water Inspection</td>
<td>Vessels not launching at inspection site</td>
</tr>
</tbody>
</table>
Mobile App

Seal Location

NV - Lake Tahoe

Seal Code

Sticker No.

Seal Color Blue

Seal Removal
Tahoe Modifications

- CA DBW Quagga/Zebra Prevention Grant funded
  - Mobile devices
  - App development
- Creating a Tahoe specific workflow
  - Testing/Feedback
  - Seal inspections (ramp)
  - Inspections and Decontaminations
Moving Forward

- Continued App refinement
- Integration with current database
- Involvement of more Regional partners
- New features
Table 3. A summary of scientific research indicating the lethal water temperature at point of contact and duration for decontamination. Information is grouped by the location of the boat that is targeted and the life form of dreissenid mussel targeted (e.g. adult mussel or veliger). Please refer to the Student Training Curriculum for Watercraft Inspectors and Decontaminators to Prevent and Contain the Spread of Aquatic Invasive Species for complete step by step procedures.

<table>
<thead>
<tr>
<th>Boat Part/Location</th>
<th>Water Temperature</th>
<th>Duration*</th>
<th>Type of application</th>
<th>Target Life Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hull</td>
<td>140°F</td>
<td>10 seconds</td>
<td>High pressure spray(^1)</td>
<td>Adult</td>
</tr>
<tr>
<td>Trailer</td>
<td>140°F</td>
<td>70 seconds</td>
<td>Low pressure spray(^2)</td>
<td>Adult</td>
</tr>
<tr>
<td>PFDs, anchor, paddle</td>
<td>140°F</td>
<td>10 seconds</td>
<td>Low pressure spray</td>
<td>Adult or Veliger</td>
</tr>
<tr>
<td>Gimbal</td>
<td>140°F</td>
<td>132 seconds</td>
<td>Low pressure spray</td>
<td>Adult</td>
</tr>
<tr>
<td>Engine</td>
<td>140°F(^4)</td>
<td>See Note</td>
<td>Flush</td>
<td>Veliger</td>
</tr>
<tr>
<td>Ballast tanks</td>
<td>120°F(^4)</td>
<td>130 seconds</td>
<td>Low risk – Flush(^3)</td>
<td>Veliger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High risk – Fill and flush</td>
<td></td>
</tr>
<tr>
<td>Live well/Bait well</td>
<td>120°F</td>
<td>130 seconds</td>
<td>Low pressure spray or flush</td>
<td>Veliger</td>
</tr>
<tr>
<td>Bilge</td>
<td>120°F</td>
<td>130 seconds</td>
<td>Flush or low pressure spray</td>
<td>Veliger</td>
</tr>
</tbody>
</table>

*the times listed are the minimum times necessary to achieve mortality
\(^1\) High pressure = 3000 psi
\(^2\) Low pressure = Using the pressure from the decontamination unit with no nozzle, essentially a garden hose flow
\(^3\) Flush = Adding water to a compartment of a boat and forcing the water out
\(^4\) These temperatures denote the exit temperature (i.e. temperature of water exiting the boat not exiting wand or flush attachment).

Note: Engine flushing relies on the exit temperature as a guideline for decontamination duration, see page 26.
Boat Industry Partnerships

• How it became reality
  • AIS Summit- American Boat & Yacht Council (ABYC)
    • Brought together industry and AIS Managers
    • How can we work together?
      • Share customers
      • Common Goal
  • Innovation
  • ANSTF created Boat Industry Partnership sub-committee
ABYC formed a new Project Technical Committee

- Working with USFWS, NMMA, and AIS Managers
- How can boats be designed with AIS in mind?
- Collaborative process
Boat Industry Partnerships

- Partnership developing a Technical Information Report
  - Educating industry on AIS and boat design considerations
  - Sharing Information, ideas and concerns
  - Working together towards a common goal
Boat Industry Partnerships

Accomplishments

- Open communication
- Presentations to industry on AIS
- Understanding what decontamination can do to boats
- New designs and technology
- What the future holds...

**NOTICE**

Before towing this vehicle be sure to read and familiarize yourself with the instructions and warnings supplied with it. NEVER TOW THIS VEHICLE BEFORE YOU CHECK TO BE SURE:

- Coupler, hitch and hitch ball are of the same size
- Coupler and safety chains are safely secured to hitch of tow vehicle
- All fasteners are properly tightened
- Boat is securely tied down to trailer (winch line is not a tie down)
- Wheel lug nuts are properly tightened
- Wheel bearings are properly adjusted and maintained

This trailer is equipped to meet applicable federal safety standards. Check local and state requirements regarding brakes and any additional equipment that may be required.

**TRAILER CHECKLIST**

- Load is within maximum load carrying capacity
- Tires are properly inflated
- All trailer lighting is working properly
- Trailer brakes are properly adjusted and working (if trailer is so equipped)
- Clean, drain and dry the boat and trailer, removing any attached plant material or debris

- **What the future holds...**
Thank You

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