

Preparing for a Rapid or Opportunistic Response to Aquatic Invasive Species

CHECKLIST FOR CALIFORNIA WATER MANAGERS

To successfully respond to the establishment of an aquatic invasive species such as quagga or zebra mussels, water managers must be ready to take quick action. Make sure you're prepared by referring to this checklist.

DETECTING THE PEST

- Get training:** Visit an infested waterbody and learn to detect very small mussels when few are settling. Decontaminate yourself and your gear before leaving an infested site.
- Run continuous early detection monitoring:** Examine surfaces, take plankton tows, and use artificial substrates to check regularly for the presence of invasive mussels.
- Be opportunistic:** Conduct supplemental surface surveys of items that are removed from the waterbody, such as moorings and docks.
- Establish identification protocol:** Develop a protocol for photographing, collecting and sending suspect organisms for identification.

KNOWING YOUR WATERBODY

- Monitor water conditions:** Water temperature, dissolved oxygen (DO), calcium, and pH influence the ability of mussels to settle and spread. Knowing environmental conditions will help you identify how vulnerable your waterbody is to mussels and when monitoring will be most effective.
- Map the habitat:** Know where mussel-preferred surfaces are located—infrastructure, rock outcrops and shelves—and complexity of habitat, such as nooks and crannies, so that you can quickly assess the extent of an infestation when detected.
- Identify species of concern:** Identify threatened and endangered species in your waterbody as they may limit possible actions.
- Determine potentially useful species:** Identify species that could help control a mussel population (a.k.a. biological control agents).



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ASSESSING THE INFESTATION

- Conduct diver surveys:** Conduct a dive survey of submerged infrastructure once a year to test the response system. This can also help map habitat and remove unwanted hard substrate. Have divers on call so you can quickly assess an infestation if one is detected.

ADDRESSING THE INFESTATION

- Plan strategically:** Evaluate the feasibility of potential tactics. Consider conditions, habitat, other species, and the costs, and seek input from those knowledgeable about each tactic. Develop a strategy based on feasible tactics.
- Line up help:** Identify collaborators and equipment sources for feasible tactics.
- Line up permits:** Work with appropriate agencies on permits so that you have them when needed.