A Call to Action
Crystal Clear

National Park Service
U.S. Department of the Interior

Colorado River Parks

Strategic Plan for Management of Aquatic Invasive Species in the Colorado River

A science educator displays a flip-flop encrusted with quagga mussels at Lake Mead National Recreation Area (Nevada and Arizona). NPS PHOTO

Aquatic Invasive Species (AIS) are a major concern in waterways due to their significant impacts to ecological resources, recreation, water infrastructure, and endangered species. National parks in the western United States have faced growing concerns in the past five to ten years as plant species such as tamarisk and animal species such as quagga and zebra mussels threaten park resources.

The cost of preventing, containing, and mitigating invasive species is estimated in the billions of dollars each year in the United States, and prevention is more cost effective than control after invasion. AIS prevention and containment now make up a large portion of the budget for large reservoir parks in the Colorado River watershed, and managers are increasingly concerned about making those programs sustainable and effective. River parks also have an increasing need for effective education and prevention, given the impacts to native fish and the risk of spread of non-native species.

Background

The Colorado River Steering Committee is composed of two NPS regional managers, seven park superintendents, and the Associate Director for Natural Resources Stewardship and Science. This committee designated AIS as one of their top five issues to pursue in their 2012 Colorado River Strategic Plan.

A working group was put together to address AIS in the Colorado River parks. The purpose of the working group is to make recommendations to the Steering Committee to improve the consistency and effectiveness of AIS prevention and containment in these parks.

The first species targeted by the working group are quagga and zebra mussels since that is the most urgent threat for reservoir parks: Lake Mead National Recreation Area is already contaminated, and quagga mussels have been detected at Lake Powell in Glen Canyon National Recreation Area. Other AIS of concern include some species of fish, vegetation, and other invertebrate organisms and diseases.

Status

The working group has completed three virtual tours of national parks contaminated or threatened by invasive mussels: Lake Mead, Glen Canyon, and Curecanti national recreation areas. Each park hosted a virtual tour to demonstrate programs already in place to prevent and contain mussels. By sharing best practices and lessons learned, national parks and the working group can develop strategies to be more effective and more consistent throughout the Colorado Basin.

Although mussels are the pilot issue for the working group, many more species of concern exist, and river parks face different challenges than reservoir parks. Tamarisk is established at many units including Dinosaur National Monument, and invasive fish species are established in river reaches of many of the Colorado River parks.

Different approaches are needed for different threats. But one need remains constant: to communicate and work together to prevent and manage aquatic invasive species.

Above right: Quagga mussels on a boat propeller at Lake Mead NRA. NPS PHOTO

Near right: The Colorado River flows through Grand Canyon National Park (Arizona). NPS PHOTO

More Information

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