

Meeting Date: November 16, 2023

Agenda Item No. 9

Agenda Item: Update & After Action report on Quagga Mussel detection in the Snake River by Twin Falls

Bureau Chief Approval: LH

Prepared by: Eric Stark, Fishery Program Coordinator

Background:

This is a non-action agenda item providing background on the discovery of Quagga Mussels in the Snake River near Twin Falls, Idaho. This presentation will cover mussel biology, history of invasive spread, as well as potential environmental and economic impacts; overview Idaho State Department of Agriculture's (ISDA) surveillance and treatment efforts; and discuss the department's pre-treatment fish population surveys, treatment-associated fish kill monitoring, and thoughts on fishery restoration. Where established, Quagga Mussels have impacted water delivery, power generation, and recreation, resulting in costly damage. They also disrupt natural food chains and crowd out native species, which can dramatically alter fisheries. ISDA's long-established surveillance program detected the larvae in the Snake River near Twin Falls, and they quickly enacted a treatment to rid the river of Quagga Mussels. ISDA implemented a 10-day treatment (October 3-13) of a 6-mile reach of the Snake River from the Twin Falls pool above Shoshone Falls downstream to Auger Falls. The treatment used a formulation of chelated copper which was slowly metered into the water at a concentration to eradicate mussels but below the drinking water standard for humans. Little to no population impacts were expected to mammals or birds, but significant fish mortality was expected within the treatment area. In preparation, IDFG conducted a pre-treatment fish survey which provided a benchmark of the original fish community of the Mid-Snake River. During the treatment IDFG crews sampled and retrieved thousands of dead fish in the 6-mile reach from the Twin Falls pool above Shoshone Falls downstream to Auger Falls. Final fish mortality estimates are not yet available, but the most common species observed were largescale sucker, northern pikeminnow, common carp and some yellow perch. As of October 13, 27 sturgeon mortalities were recovered, all of which were hatchery-origin. Fish mortality is expected to decline rapidly as the treatment is diluted downstream. The fish sampling conducted will help guide future efforts to rebuild the fishery.

Statutory Authority and/or Policy issues:

ISDA has statutory authority for invasive species management (IC 22-19), while IDFG provides technical assistance, logistical support and helps with outreach and education efforts across the state. Notwithstanding, the Commission is charged with administering wildlife policy, and through the Department, is responsible for preserving, protecting, perpetuating, and managing the state's wildlife (IC 36-103).

Public Involvement Process:

ISDA hosted a public open house in Twin Falls just before the start of the treatment. And the public is keenly interested in ISDA's Quagga Mussel treatment and its potential impacts to the fishery in the Snake River. The Commission and the Department will likely continue to receive input from the public on this crucial topic via social media, email, phone calls, public meetings and hearings, and other events.

Justification:

Information will aid Commissioners as they respond to requests, recommendations, or other input from the public.

Staff Recommendation:

None. This agenda item is for Commission information.

Action Requested:

None.