

## 2013 Project Abstract

**PROJECT TITLE:** Aquatic Invasive Species Research Center Sub-Project #11: Reducing and controlling AIS: Risk analysis to identify AIS control priorities and methods – Phase 1: Problem Formulation

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**FUNDING SOURCE:** Environment and Natural Resources Trust Fund

**LEGAL CITATION:** M.L. 2013, Chp. 52, Sec. 2, Subd. 06a

**APPROPRIATION AMOUNT: \$93,343**

### **Overall Project Outcomes and Results**

Individual [invasive] carp continue to be found in Minnesota waters, and there remains pressure for sound statewide management to address this potential threat. To help advance the management of [invasive] carp in Minnesota and inform the initial problem formulation step in a risk assessment, this project conducted focus groups and in-depth interviews to: 1) identify potential adverse effects from [invasive] carp to inform a subsequent risk assessment, and 2) characterize the tensions and conflicts that are hampering [invasive] carp management. First, we conducted 5 focus groups with 20 individuals, including MN-DNR managers and stakeholders involved with invasive carp. During these focus groups, participants created a list of potential adverse effects that could occur if invasive carp were to establish in Minnesota, and discussed the importance and potential causes of these adverse effects. The resulting potential adverse effects were associated with 26 valued and potentially affected entities. Focus group participants also discussed what could and should be done to manage invasive carp, including where improvements in existing management efforts are needed. The results from this work were summarized in the report *Potential adverse effects and management of Silver & Bighead carp in Minnesota: Findings from focus groups*, informed the in-depth interviews on management, and will inform the risk assessment to be conducted in Phase 2 of the project. Second, to study and help address the tensions and conflicts impeding management we conducted 16 in-depth interviews with individuals who have been involved with [invasive] carp management in Minnesota, including state and federal agency officials, University researchers, and representatives from non-governmental organizations. As presented in the report *Exploring tensions and conflicts in invasive species management: The case of [invasive] carp*, we found three areas of tension and conflict impeding [invasive] carp management: 1) scientific uncertainty (concerning the impacts of [invasive] carp in Minnesota and the impacts of barriers on [invasive] carp and native fish species), 2) social uncertainty (concerning the divergent views of what, if anything, should be done to manage [invasive] carp), and 3) the needed approach to [invasive] carp research and management. Findings point to the need for the right relationship to uncertainty and for reflexive deliberation on the judgments informing research and management decisions.

### **Project Results Use and Dissemination**

The potential adverse effects described in the report *Potential adverse effects and management of Silver & Bighead carp in Minnesota: Findings from focus groups* will be used in the Phase 2 project to inform the analysis phase of the risk assessment for bigheaded carp in Minnesota. Project findings were shared via presentations. First, findings were shared at the 2015 Association for Environmental Studies and Sciences conference in a presentation titled, "How to prevent harm: Exploring conflicts within invasive [invasive] carp management." Findings were also presented at the MAISRC 2015 Research Showcase in a presentation titled, "Advancing [invasive] carp management using risk analysis: Findings from year one." Findings from phase 1 will also be shared at the 2016 Minnesota Invasive Carp Forum. Project findings were summarized and distributed in two

written reports: 1) *Potential adverse effects and management of Silver & Bighead carp in Minnesota: Findings from focus groups*, and 2) *Exploring tensions and conflicts in invasive species management: The case of [invasive] carp*. These reports were made available online and provided to stakeholders and managers involved with [invasive]carp.