Project Title: Predicting the Spread of Aquatic Invasive Species in a Changing Climate

Task Agreement #: G18AC00379   **Modification(s):**

Discipline: Natural

Type of Project: Research

Funding Agency: USGS

Other Partners/Cooperators: University of Montana

Student Participation:

Effective Dates: 9/30/2018– 9/30/2019

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Investigators and Agency Representative:

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Project Abstract The goal of this research project is to synthesize existing information about the effects of climate change on the spread of AIS across the northwestern United States. This project will use results from our FY17 synthesis to identify 3–5 invasive species (e.g., rainbow trout, brook trout, smallmouth bass, northern pike etc.) that pose the most serious threats to native species and key climatic drivers associated with their establishment and spread. This research will expand on this work by using extensive, multidecade species monitoring data coupled with high resolution climate data to identify factors influencing spatiotemporal invasion dynamics of our 3–5 candidate invasive species. This information will be used to predict invasion risk to native salmonids using models that account for habitat suitability under future climate-change scenarios, providing a robust decision-support tool to understand invasion risk and inform targeted preventative and mitigation measures.