



Advancing the science and standards of practice of river restoration through education

Board Candidate: *Erin McGowan, MS Geosciences*

Affiliation: *Environmental Scientist, Tetra Tech*

Location: *Deer Lodge, Montana, USA*

Focus/Specialties: *Fluvial geomorphology, surface and groundwater monitoring of restoration projects, construction oversight*

Biographical Sketch: *I have assessed the effectiveness of completed restoration projects and have designed and executed preliminary site investigations for The Nature Conservancy (TNC), Ruby Valley Conservation District, Hamilton Ranch, and Snowcrest Ranch on the upper and lower Ruby River. I monitored surface and groundwater interactions on a 2-mile restored reach of the lower Ruby River, where I analyzed 5 years of pre-restoration and post-restoration surface and groundwater data to determine if the groundwater table raised post-restoration. I contributed substantially to the thesis development, sampling design, data collection, and instrumentation of a Nature Conservancy-funded surface and groundwater study on the upper Ruby River conducted by a Montana Tech Hydrogeology graduate student. I also recently completed graduate research for TNC, the Ruby Valley Conservation District, and the Snowcrest Ranch where I assessed the spatial distribution of lateral channel migration and stream power on the upper Ruby River to support the location, type, and schedule of the proposed river restoration actions on the upper Ruby River. For this research, I independently led fluvial geomorphic surveys used to quantify bankfull stream power estimates. I utilized satellite imagery and LiDAR to quantify channel migration rates and to locate and identify potential sediment sources and sinks. I now collaborate with a working group with the Ruby Valley Conservation District, TNC, the Snowcrest Ranch, and their partners on narrowing down specific restoration reaches on the upper Ruby River. I now oversee the construction and remediation of the upper Clark Fork River Operable Unit for Tetra Tech in southwest Montana where I work with our engineers to ensure contractors adhere to design specifications, design change orders, and best management practices.*

Statement of Interest: *I am currently an Interim Board of Directors for River Restoration Northwest who is looking to be official voted in by the membership of River Restoration Northwest and continue contribute to the RRNW community. My focus as a BOD has been on building and deepening relationships with indigenous community members and leaders who restore aquatic systems and the relationships between communities and water in the Pacific Northwest. I am also revamping and expanding upon the awarding process for RRNW Symposium professional stipends and student internships.*