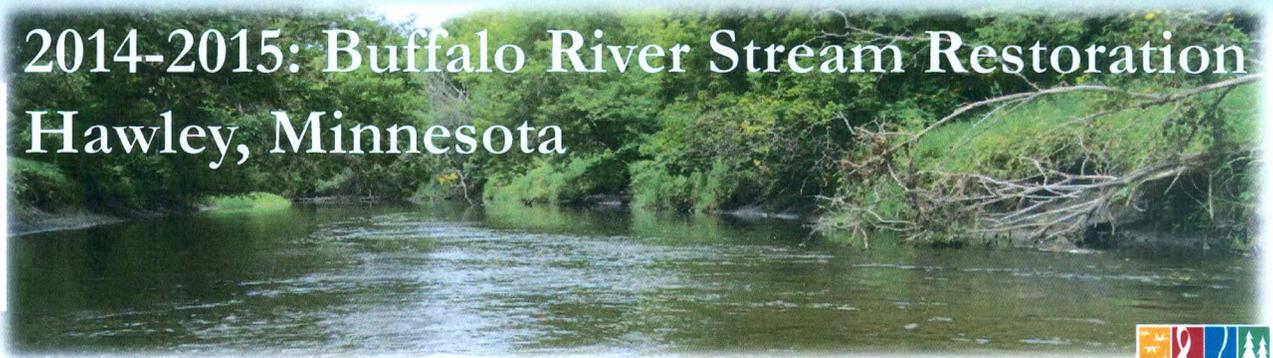




2014-2015: Buffalo River Stream Restoration Hawley, Minnesota



DESIGN COMPONENTS

- Concept and design by Luther Aadland (MNDNR Stream Habitat Program) and Erik Jones (Project Engineer, BRRWD/Houston Engineering)
- Basic concept – remeandered a straightened portion of the stream and restored its natural character
- 1710 ft were added to river length
- The river was reconnected with the floodplain.
- Aquatic habitat was created in the form of gravel riffle areas and deep pools
- Banks were seeded with native grasses
- Junction Avenue was removed for the footprint of the new stream channel
- Rodeo Drive was improved by the City of Hawley to accommodate the traffic from Junction Avenue

STREAM HISTORY

- In 1937, the river was dammed downstream of Hawley, MN in the Buffalo River State Park
- The river was also straightened in various locations in the 1950's including at the restoration site
- Resulting impacts to the watershed include:
 - ⇒ Stream habitat fragmentation and degradation
 - ⇒ Erosion problems that contributed to a 303d turbidity impairment
 - ⇒ Blocked fish migration (21 species of fish and 4 species of mussels in the downstream reach of the river were not sampled upstream of the dam)
- Buffalo River State Park Dam was removed in 2002 (reconnecting ~60 miles of stream)
- This project is part of a larger scale restoration effort focused on reconnecting and restoring the Buffalo River Watershed

MONITORING

- MNDNR Stream Habitat Program has collected fish monitoring data for three years pre-project
- Post-project monitoring will be conducted to determine how species respond to improved habitat quality

PROJECT PARTNERS AND FUNDING

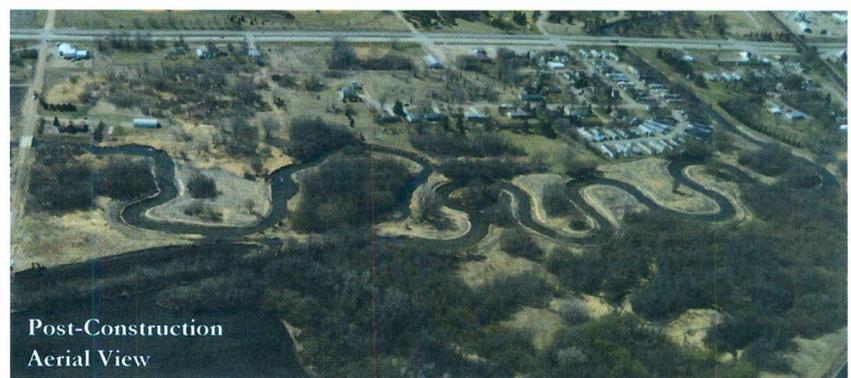
- A bulk of the project was funded by the Minnesota Clean Water Land and Legacy Amendment through the MNDNR Stream Habitat Program — Les-sard-Sam's Outdoor Heritage Council approved project funding in 2013
- Additional funds necessary to complete the project were contributed by project partners including the Buffalo-Red River Watershed District (BRRWD) and the City of Hawley
- Bruce Albright (District Administrator, BRRWD) and Lisa Jetvig (Clerk Treasurer, City of Hawley) played a key role in project coordination



Pre-Construction

PROJECT BENEFITS

- Gravel riffles will provide: 1) critical spawning habitat for walleye, lake sturgeon and other riffle spawning species and 2) habitat for mussels
- A wildlife corridor that will benefit various species including amphibians and birds
- Reduction of erosion and sediment
- A riparian buffer along the restored reach of the stream
- Increased flood storage by adding length to the river and improving connection of the river with its floodplain



Post-Construction
Aerial View