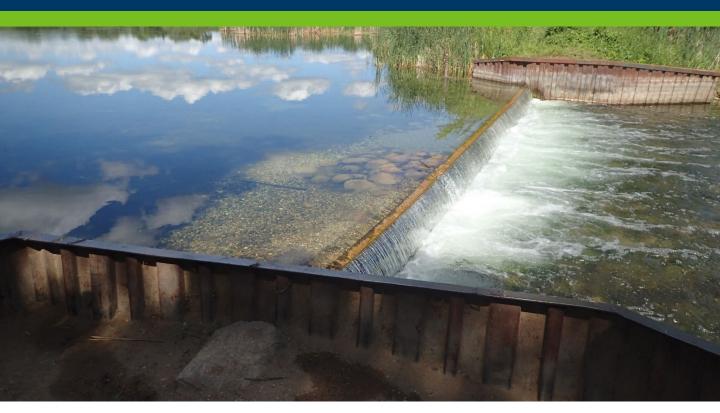
# Lake Carlos Rock Arch Rapids Project



## **Purpose and Goals**

- Maintain the lake level.
- · Address scour hole and bank erosion issues
- Improve connectivity of river and lake system by modifying the dam structure into a rock arch rapids
- Improve fish habitat by providing spawning habitat
- Improve safety and recreation at the site

#### **Benefits**

- Lake Le Homme Dieu and Lake Carlos will be reconnected to the watershed
- 36 fish species downstream of the dam will benefit from improved connectivity and access to more quality habitat
- The site will be stabilized and current erosional issues addressed

#### Recreation

- Rock arch rapids will be placed in such a way as to provide a passable route for experienced tubers, canoeists and kayakers
- Flat stones will also be placed along the banks for use as fishing platforms

### **Funding**

 This project is funded with Clean Water Land and Legacy Amendment funds by the Lessard-Sams Outdoor Heritage Council

Questions: Contact Park Staff at (320) 852-7200





# Design will consist of:

- A rock arch rapids structure with base ramp of smaller rock, 3 arches/weirs of larger boulders, and random boulders for habitat
- Low rock berms along both sides of the rock arch rapids structure
- The dam remaining in place with rock arch rapids built downstream of dam crest



Plan view of design including the rock arch rapids and berms.



Fish Lake Dam Modification (Otter Tail County) - A rock arch rapids project very similar to the Lake Carlos dam design with low-elevation containment berms along both sides of the ramp and weir structure. The weirs will submerge during high flow events due to higher tailwater created by the downstream culverts.