

# Why remove or modify dams?



Lion's Park Dam, Frazee MN



*Dams throughout Minnesota are being removed or modified into a stone rapids as a means of restoring stream health. This approach restores the natural flow of the river, allows the fish community to migrate upstream, provides spawning habitat, removes the drowning hazard, and provides recreational opportunities.*

## **STREAM HABITAT PROGRAM**

Website:

[www.mndnr.gov/eco/streamhab](http://www.mndnr.gov/eco/streamhab)

### **There are numerous reasons for dam removal or modification:**

- The rollers below dams are dangerous drowning machines.
- Dams are very costly to maintain and repair and are a major liability to the owners.
- By 2020, 85% of U.S. dams will be near the end of their operational lives (Federal Emergency Management Agency FEMA, 1999) as the average life span of a dam is 50 years (Association of State Dam Safety Officials).
- The reservoirs behind dams slowly fill with sediment. This gradually decreases the storage capacity of the reservoir and intercepts the natural transport of sediment downstream. The water flowing over the dam is 'sediment hungry' causing erosion of the stream banks and bottom.
- Reservoirs negatively affect water quality by retaining chemical pollutants, such as fertilizers and mercury, and increasing temperature.
- Dams alter free flowing river ecosystems into low flow lake-like ecosystems, which is bad for the river community. Blue-green algae blooms, invasive species, and parasites are more prevalent in reservoirs than undammed rivers. The native fishes are not well suited to this altered environment so cannot successfully compete with invasive species.
- Dams were commonly built over natural rapids or falls, which inundated and buried crucial spawning habitat where faster flowing, oxygen-rich waters keep developing eggs clean and oxygenated. {Native fish species such as lake sturgeon migrate hundreds of miles to spawn in higher gradient rapids.}
- Dams block the movement and migration of the fish community, of which some species are the hosts that distribute immature mussels.