Maquoketa River Restoration - Mon/Maq Dam Project

Over the past 10 years the Conservation Board, Mon/Maq Dam Advisory Committee, and interested citizens have been reviewing several options for the long term use and management of the Mon/Maq Dam Access near Monticello. The center of this review has included the Dam itself. The current structure, built between the years of 1913-1914, has been utilized in its early years as a hydro power plant. Over time the cost effectiveness of the plant diminished until eventually it and the 63 acres around it were offered to the Conservation Board. As a Conservation Board access visitors from around the country have enjoyed the opportunity to walk the river bank, observe the historical mill site, fish, paddle, tube and even utilize shallow water boats either above or below the dam.

Over time however concerns about river health and aging low head dams in general, have grown.

1. Dams block the ability of fish and other aquatic wildlife from utilizing stretches of river above a dam. This is especially the case for many fish species that require a variety of habitats seasonally and for reproduction. Research has shown that some species prefer deep holes in the winter while utilizing shallow areas in the spring and summer, often traveling several miles in between. Low head dams give fish the ability to swim over the dam downstream but then are largely blocked from returning upstream. This phenomenon is especially concerning for wildlife like mussels that require certain types of fish to move their young throughout the river system. Without a healthy, connected river system, mussel population health and growth is often hindered.
2. Long term cost of maintenance and upkeep of the dam structure.
3. Potential for uncontrolled failure and increased cost to local citizens.
4. Low head dams like the Mon/Maq are prone to dangerous hydraulics as water flows over their surface and recirculates in the pool below causing safety and liability issues. Known as a drowning machine, this recirculation causes anything caught within it to be trapped near the dam.
5. Man-made structures like a dam are often built for a 50-100 year lifespan. With the dam currently being over 100 years old the engineered lifespan of the structure itself and support structure within the flood plain have been surpassed.
6. Navigation within the Maquoketa River is reduced with the construction of manmade dams. Motorboats are not able to travel between the upstream and downstream stretches. Paddlers and tubers are required to portage around the dam. This impediment is of major concern to recreationists with reduced mobility.
7. Angling success in pooled areas above low head dams is often reduced. Natural river environments provide a diversity of habitats and fishing opportunities.
8. Increased flooding upstream can occur due to the presence of dams.

These concerns have propelled dam owners like the Conservation Board to look into ways to minimize them while maintaining and/or improving current usage of the river access and surrounding area. The Conservation Board developed the following list of goals for the project:

* Eliminate dangerous hydraulics at all flow ranges
* Improve upstream passage of native fish and aquatic species at all flow ranges
* Develop and design budget-friendly alternatives for the construction project
* Strive to reduce long-range costs with self-maintaining river channel while avoiding negative effects on other infrastructure (bridges, levees, etc.)
* Enhance river navigation
* Improve angling opportunities near the dam vicinity and upstream in the impounded area
* Enhance natural aesthetics and native vegetation in the affected reach
* Maintain historical interpretation of the site
* Reduce upstream flooding