CITY OF ANOKA - RUM RIVER DAM

Re-imagined for the next 100 years!

In 1935, the City of Anoka became the owner of the Rum River Dam structure. Anoka continues to own and operate the dam today.

REQUESTED FUNDING:

$500,000

- Update Feasibility Studies
- Design & Engineering
- Develop 'Shovel Ready' Plans
- Bid & Construction Documents
- Pursue Grant Funds

PROPOSED MODIFICATIONS:

$11.95 million

- Operation & Safety Improvements
- Hydroelectric Power Generation
- River Surfing
- Lock or Boat Portage System
- Fish Passage
- Enhanced Environmental Benefits

OPERATION AND SAFETY IMPROVEMENTS:

Flashboard installation and removal requires manual manipulation and places city staff in a hazardous situation biannually. The river's water level must be low enough to bypass the deck of the dam when the tainter gate is opened. Spring installation is dependent on flooding, which can delay installation into the summer months. Board removal in the fall can be treacherous due to harsh temperatures. Conversion to an automated crest gate system would eliminate the need for crews to traverse the dam and would allow for predictive water level management to reduce spring flooding, upstream riverbank erosion, impacts to infrastructure and damage to aquatic habitat. The maintenance platform would allow for year-round removal of trees and debris that collects on the upstream side of the crest gates.

HYDROELECTRIC POWER GENERATION:

Hydroelectric power is not a new concept for the Anoka Rum River Dam, although the technology is new. In the 1880's, the dam included four turbines on the east bank of the river that powered the Lincoln Flour Mill and several other businesses along the riverfront (pictured on the right). The historic dam produced approximately 540kW of power with unrestricted flows.

Modern technology indicates that a hydroelectric power plant could produce enough electricity to power the utilities along the riverfront and four buildings the size of Anoka City Hall without creating adverse environmental impacts. The Anoka project would benefit local residents by reducing the peak electric use across the entire grid system. In addition, the incorporation of hydroelectric power generation aligns well with Minnesota's ultimate goal of producing 100% of its electricity from green energy sources by the year 2040.

ANOKA
REAL. CLASSIC.

City of Anoka, 2015 First Ave., Anoka MN

Greg Lee, City Manager, 763-576-2711

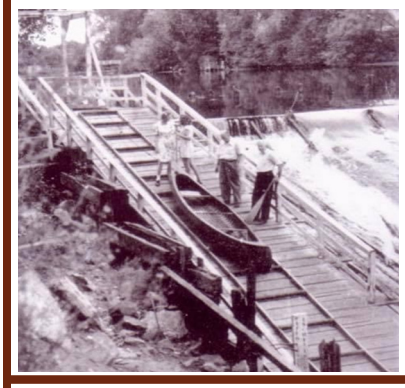
RIVER SURFING:

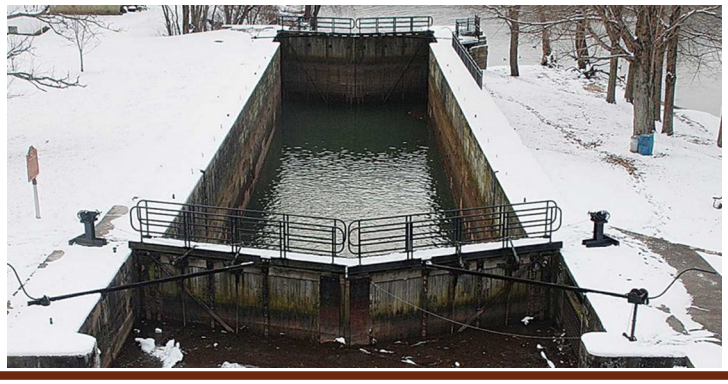
River surfing is a new sport growing in popularity in the United States. It provides an inland option for surfers and paddlers to ride a standing wave created by the underlying rock formations and the river water flow rate. Waves can occur naturally in the riverbed but also can be engineered. The best waves are caused by a high volume of water flowing over rock formations to create a single wave and not a series of rapids. River surfing on the Rum River would put Anoka on the map as a unique river recreation and tourism destination with the first river surfing location in the Midwest and east of the Mississippi River.

Photo courtesy of Riverbreak.com

LOCK OR BOAT PORTAGE SYSTEM:

The 1940's historic dam included a conveyor system for small watercraft to portage the dam. Modification of the existing spillway into a lock will offer passage to pontoons and other watercraft, creating access from above the dam to the lower Rum River channel and the recreational pool of the Mississippi River. The dam creates a segmentation and disconnection for residents living along the upper Rum River from the lower Rum and Mississippi Rivers. An additional benefit of a lock is that water could be drawn down periodically for dam inspection and maintenance and it could be opened to assist with the release of floodwaters. A lock would also aid in the passage of native fish species for spawning.





FISH PASSAGE:

A fish passage would allow fish to swim along and leap a variety of low steps allowing access to the waters on either side of the dam supporting the spawning needs of native fishes by increasing their habitat and effectively restocking the Rum River. Eventually, those fish would return to the Mississippi River bolstering the fishery of the big river. Native fishes will benefit from access to spawning grounds that extend from Mille Lacs Lake to the Mississippi River. The fish passage would utilize a 'nature-inspired' design allowing it to become part of the landscape and be an educational feature of the park. An integrated gate system and pump would be used to adjust the flow of water and allow for the passage to be closed for maintenance, seasonal flooding, and to control aquatic invasive species.

ENHANCED ENVIRONMENTAL BENEFITS:

Dam upgrades would enable the City of Anoka, in consultation with the MN DNR, to actively manage water levels for multiple benefits. Whether it's flood control in the face of mounting precipitation extremes, or actions that would benefit target species, the proposed dam improvements provide the ability to manage adaptively and precisely based on the best available science and climate forecasts. This ability will be paramount in the coming decades.

The generation of hydroelectric power would be free of hazardous fumes and greenhouse emissions. Other modifications will help effectively obstruct the erratic and rapid flows to help mitigate spring flooding and to better control the recreation pool above the dam to support recreational river use.

The Anoka Rum River Dam is a major asset to the region with the recreational pool extending over six miles upstream, thus benefiting multiple communities. Recreational opportunities will be further enhanced through the proposed dam modifications as they will re-establish the connection to the Mississippi River.

For more information on this project please visit www.anokaminnesota.com