

COUNCIL ACTION FORM

SUBJECT: AUTHORIZATION FOR FUNDING OF RIVER VALLEY PARK LOW-HEAD DAM MODIFICATIONS

BACKGROUND:

In 1984 the City constructed a low-head dam in River Valley Park. The function of the dam is to create a pool of water which serves as a recharge location for the City's water supply aquifer.

On occasion, the dam is also used by citizens for recreational purposes, including some organized recreation groups. One such group is the local Skunk River Paddlers. In 2008, the City Council received a letter from a representative of this group outlining the inherent dangers of low-head dams. In particular, the letter discussed the recirculation effect which occurs immediately downstream of the dam. It also proposed changes to the area which would make it safer for citizens who use it for recreation. While the City has never promoted recreation on the water crossing the dam and has actually posted a sign warning the public to exit the river, it is evident that this water feature continues to attract members of the public who use the area for recreational purposes.

The proposed work consists of placing boulders on the downstream side of the dam. These boulders will minimize the recirculation effect that creates such dangerous conditions. It will also create water "features" which could be used by kayakers for recreation. City staff understands and appreciates the potential safety benefits of this project. Discussions have taken place with the Skunk River Paddlers to consider issues such as liability to the City, on-going maintenance, and potential damage to the existing structure during installation.

In August, 2008, City Council approved a general concept of the proposed modifications to the dam. Since then, the Iowa Department of Natural Resources (IDNR) has proposed a modified design that increases the number of boulders on the downstream side to provide aquatic life benefits in addition to safety. The new design also provides a more stable arrangement to better withstand high flows in the river. The increased scope of the project has thus increased the estimated construction cost.

In January 2009, the City held a public open house to discuss the proposed changes with citizens and gauge the public's interest in the project. The open house was well attended, and many people voiced their support. Local citizens and a business even expressed interest in providing labor for construction.

The IDNR has cost share funding available in the current year to assist with projects of this nature. This includes funding for both technical design and construction. The IDNR has estimated a total cost for this project to be \$144,000.

Half of the cost is expected to be provided by the IDNR funding, and half from local contributions. Local funds for this project are expected to come from a variety of sources. Most of it can come from savings in the City's State and Mortensen elevated water tank project. In addition, local environmental groups have offered to provide a small portion of funds toward the project. Various citizens and a local business have also shown interest in assisting with construction labor and/or materials as in kind donations.

Based upon the IDNR budget estimate, we estimate a total of \$72,000 will be necessary for the local cost share of the project. Staff requests that Council authorize up to \$50,000 from savings in the elevated tank project to be used for this project. Staff will then complete funding applications to IDNR for both design services and construction funding. Finally, staff will meet with local groups, businesses, and citizens to solicit other funding or assistance available for the project.

ALTERNATIVES:

1. Re-appropriate some of the savings from the recently completed State and Mortensen Water Tower project to provide up to \$50,000 for the low head dam modifications project. Also, direct staff to submit applications to the IDNR for design and construction assistance, and then acquire any additional assistance or funding available from local groups, businesses, and citizens.
2. Do not initiate any activity on this project at this time.

MANAGER'S RECOMMENDED ACTION:

Because of the inherent danger of the City's low-head dam in River Valley Park, last August the City Council approved a general concept for modifications to the dam. This project could significantly reduce the downstream recirculation effect while providing recreational and aquatic life benefits. Cost share funding for this project is expected to be available from the Iowa Department of Natural Resources. Although the City has never promoted recreation at the dam, staff understands the potential dangers of the activities which are undertaken at that location.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby authorizing the appropriate funding changes, as described above, to provide up to \$50,000 for the project. This action would also direct staff to submit applications to the IDNR for design and construction assistance, and then acquire any additional assistance or funding available from local groups, businesses, and citizens.

It is important again to highlight the importance of protecting the City's interests in maintaining the structural integrity of this dam. The dam plays a critical role in augmenting the City's water supply, and damage to the dam could be difficult and expensive to repair. Therefore, an acceptable plan for protecting the dam and other structures within the park must be agreed upon before the installation can proceed.