



TO: Mayor Shaun Sipma
Members of the City Council

FROM: Jason Sorenson, Asst. Director of Public Works

DATE: August 9, 2021

**SUBJECT: LOW HEAD DAM REMEDIATION – BUDGET AMENDMENT
(PROJECT NUMBER 4618)**

I. RECOMMENDED ACTION

1. Recommend council approve a budget amendment to allocate funds to begin design work for the low head dam remediation project.

II. DEPARTMENT CONTACT PERSONS

Dan Jonasson, Director of Public Works	857-4140
Jason Sorenson, Assistant Director of Public Works	857-4140

III. DESCRIPTION

A. Background

In the late in 70s and 80, the US Army Corps of Engineers completed a major flood control project in Minot by channelizing the Souris River and eliminating the winding nature. As a result, “dead loops” were created with control structures on each end and low head dams between the structures so water could still flow through the dead loops when gates are opened. There was also a low head dam constructed by the Minot Water Treatment Plant to hold a pool of water to ensure raw water supply during low water conditions. Due to the 4’-6’ drop-off over the dam, under currents (called a roller effect) create human safety risks. In 2020, the ND State Water Commission assessed low head dams across the state and a few of the structures in Minot made the priority list. The Minot Water Plant low head dam has the highest hazard prioritization in the state. This project was initially listed for the 2021 – 2022 CIP. It is in the best interest to proceed with this project now while river levels are low as survey and data collection will be much easier to do with the low river levels.

B. Proposed Project

The low head dam remediation at the Minot Water Supply Dam would include installing rip rap and rock riffle structures immediately downstream of the dam crest. This will eliminate the roller effect, and therefore, the human safety hazard.

C. Consultant Selection

The City has advertised an RFQ related to this project. A consultant will be selected to perform the design and construction engineering services for this work, as well as future low head dam remediation.

IV. IMPACT:

A. Strategic Impact:

N/A

B. Service/Delivery Impact:

NA

C. Fiscal Impact:

Project Costs

Design Engineering is expected to cost about \$100,000-\$200,000, depending on permitting and 408 approvals requirements from the USACE and the State of ND.

Project Funding

Funding for this project will come from sales tax infrastructure reserves. This project is being submitted to the NDSWC for a 75% cost share on all design and construction costs. Public Works staff, upon approval of this budget amendment, will submit an application to the State Water Commission for cost share funding.

V. ALTERNATIVES

N/A

VI. TIME CONSTRAINTS

N/A

VII. LIST OF ATTACHMENTS

1. Budget amendment