



TO: Mayor and Council

FROM: Howard S. Lazarus, City Administrator

CC: John Fournier, Assistant City Administrator
Craig Hupy, Public Services Area Administrator
Marti Praschan, Chief of Staff, Public Services
Brian Steglitz, Water Treatment Plant Manager
Glen Wiczorek, Senior Utilities Engineer

SUBJECT: Barton Dam Embankment Seepage Analysis Update

DATE: July 18, 2019

I want to take this opportunity to update you on the investigative work ongoing at Barton Dam. If you recall as part of my budget presentation, I identified some rehabilitation work that was anticipated at Barton Dam to address some structural and stability issues that have been developing. This work is being performed under the direction of the Federal Energy Regulatory Commission (FERC), who regulate hydroelectric dams.

The conditions at Barton Dam that have warranted this investigation are wet surface conditions, or seepage, that exist along the base (or toe) of the embankment to a few feet up the slope. While FERC classifies seepage as a potential mode of failure, the seepage does not present an immediate safety risk. City staff continues to monitor the seepage for any changes and are working closely with FERC to develop a long term solution.

In 2017, the City hired NTH, Inc., a professional geotechnical engineering consultant, to investigate causes and develop a proposed solution. The geotechnical consultant has recently completed their draft recommendations. They have recommended that the City add additional fill along the downstream face of the embankment for a stretch of approximately 700 linear feet. The fill material will reduce the amount of seepage and groundwater flow, and increase the stability of this embankment section.

The estimated total project cost is \$2.5M - \$3.0M, and construction is currently scheduled in the City's CIP to begin in FY22. Design of the improvements will occur during FY20

and FY21. Funding for this project will be split between the Water Fund and the General Fund as the embankment is used for both the City's water source and generation of power.