



City Council Memorandum

To: Mayor Fasbender & City Council Members
From: Nick Egger – Public Works Director
Date: May 27, 2020
Item: Authorize Repair Work at Hydroelectric Plant & Corresponding Budget Amendments

COUNCIL ACTION REQUESTED

Council is requested to approve a budget amendment and authorize work on repair and rehabilitation activities at the Hydro-electric Plant. The estimated expense is \$200,000 and was not anticipated or included in the 2020 Approved Budget. Funds would be moved within the Hydro fund to increase the balance of the Repairs & Maintenance Account.

BACKGROUND INFORMATION

In fall of 2019, a significant leak became evident on the main shaft seal interface between the “wet side” of Unit #1’s turbine and the “dry side”, forcing us to shut down that unit and assess the issue. Since then, staff have made several attempts to diagnose the cause and to resume operations of this unit, but none have been fully successful, leaving us no choice but to keep the unit shut down. We believe that there has been a failure of the main shaft seal. The only way to confirm the cause and to perform repairs at this point is to dewater the plant and bring in several specialized contracting vendors to examine and work towards remedies. Fortunately, the City does have a replacement main shaft seal in its possession if that indeed is the failed component. However, if the cause of the issue is something different it may require an extended shutdown until the correct parts can be made and installed.

FINANCIAL IMPACT

This work was not anticipated to have to occur in 2020, and carries with it what we expect to be approximately \$200,000 in expenses. The process of dewatering the plant and performing disassembly, examination, and diagnosis work is intense and complex, involving several specialized vendors and contractors, each with their own key acumen for the types of work involved. Among these are a team of divers who will seal the plant’s turbine tubes off from the river, millwrights (heavy machine repair), a marine contractor, specialty pump supplier, and a high-voltage rated master electrician to provide wiring of the pumps and to perform lock-out/tag-out procedures for the electrical infrastructure of the plant. Each vendor that we would be bringing in has a particular niche or otherwise has specific knowledge and experience with our plant, which makes their involvement more efficient and effective than would otherwise be experienced with contractors not familiar with our facility. Our objective in having this combination of parties involved to perform the work is that we will be able to quickly get to the bottom of the issue and resume operation of the plant at its full capacity by the mid to late June.

RECOMMENDATION

Staff is recommending the Council authorize the work and the corresponding budget amendment to occur, increasing the repairs and maintenance account budget by \$200,000.