

ITEM #: 35
DATE: 11-12-24
DEPT: W&PC

COUNCIL ACTION FORM

SUBJECT: **WATER TREATMENT PLANT LIME POND UNDERDRAIN IMPROVEMENTS**

BACKGROUND:

The Water Treatment Plant is a lime softening plant. Lime residuals from the water softening process are piped to large ponds, where it is stored and dewatered. The material is removed annually and recycled by applying it to farm fields as an agricultural liming agent. The cost of the annual removal is based on the weight of the lime removed, including any remaining water. For FY 2024/25, the cost for lime removal is budgeted at \$392,140.

In 1997, a project was undertaken at the three oldest ponds to improve the dewatering and thus reduce the cost of disposal. Over time, the effectiveness of these improvements has been negatively impacted due to the combination of repeated excavation of lime from the cells and sediment that is plugging the drains. The drains are no longer operating as intended, resulting in increased operating costs to haul away excess water.

In 2021, the original underdrains in one cell were reconstructed as a trial to see if the dewatering could be improved. The trial was successful, and now the underdrains in the other two cells are proposed to be replaced. **This project will consist of installing two new underdrain systems down the mid-line of Cells 1 and 3.**

On September 24, 2024, City Council approved preliminary plans and specifications for the Water Treatment Plant Lime Pond Underdrain Improvements. Bid documents were sent to twelve contractors. The bid was also advertised on the Current Bid Opportunities section of the Purchasing webpage and a Legal Notice was published on the websites of a contractor plan room service with statewide circulation. On October 23, 2024, four bids were received as shown in the table below.

BIDDER	BID AMOUNT
Con-Struct Inc. Ames, IA	\$200,669
Keller Excavating Boone, IA	\$214,000
WRH, Inc. Amana, IA	\$316,500
JB Holland Construction Inc. Decorah, IA	\$371,700

Staff has reviewed the bids and determined the apparent low bid from Con-Struct Inc, of Ames, IA, is acceptable.

The total estimated construction project cost is \$222,000. The work was designed in-house, so there are no engineering fees. This project was included in the 2024/25 Lime Lagoon Improvements CIP Project

in the amount of \$283,000, which also includes \$61,000 to replace the existing decant pump.

ALTERNATIVES:

1. Approve final plans and specifications and award a contract to Con-Struct Inc., of Ames, IA for the Water Treatment Plant Lime Pond Underdrain Improvements in the amount of \$200,669.
2. Reject the bids and delay the project.

CITY MANAGER'S RECOMMENDED ACTION:

The lime pond underdrains are critical to the lime sludge dewatering process. Replacing the damaged underdrain and adding additional underdrains will improve the overall dewatering of the lime sludge. These drainage improvements are anticipated to result in cost savings associated with annual removal and hauling costs. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.