| | |
|---|---|
| **ITEM #:** | **14** |
| **DATE:** | **09-24-24** |
| **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 stored and dewatered in large storage ponds. 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 as 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, these improvements have been damaged due to the excavation of lime from the cells and are no longer operating as intended. In 2021, the original underdrains 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. These drains aid in the dewatering process.

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 the preliminary plans and specifications for the Water Treatment Plant Lime Pond Underdrain Improvements Project, and issue a Notice to Bidders setting October 23, 2024, as the bid due date and November 12, 2024, as the date of public hearing.

2. Do not approve plans and specifications, and do not issue a Notice to Bidders at this time.

**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.