



DATE: October 30, 2017

TO: Mayor and City Council

FROM: Director of Utilities & Environmental Services

SUBJECT: West Winton Landfill Leachate Conveyance System Replacement Project:
Approval of Plans and Specifications, and Call for Bids

RECOMMENDATION

That Council adopts the attached resolution approving the plans and specifications for the West Winton Landfill Leachate Conveyance System Replacement Project and calling for bids to be received on November 30, 2017.

BACKGROUND

The West Winton Landfill (the landfill) is a closed San Francisco Bay-front landfill located at the western terminus of Winton Avenue in Hayward. The landfill covers an area of approximately sixty acres and is maintained as recreational open space and is used as a passive public park as part of the East Bay Regional Park District's Hayward Regional Shoreline. The facility was operated as a regional landfill by Waste Management of Alameda County, then called Oakland Scavengers, from 1930s until its closure in mid-1970s, and as such, the landfill's waste is owned by Waste Management, while the underlying land is owned by the City which acquired title in 1978. Perimeter trails are owned and maintained by the East Bay Regional Park District as part of its Regional Shoreline Trail system, which forms a portion of the Bay Trail system. Pursuant to an Order from the Water Board, and under an agreement with Waste Management, the City operates and maintains the leachate conveyance system, and Waste Management maintains the leachate extraction system (wells and pumps).

The leachate extraction system (LES) was installed in 1993 to mitigate a leachate seep and the system is located on the west perimeter levee. In 1996, the system was expanded to the landfill's eastern panhandle where an additional extraction well was installed. The system had been operating reliably until earlier this year after the unusually wet season when the system began to experience a number of leaks. The leachate conveyance system consists of a relatively shallow buried PVC piping system. The piping has been in place for approximately twenty-four years. Over time and particularly after heavy rain this past winter following several years of drought conditions, it is expected that some settlement has occurred. Because of these conditions, increased pressure on the buried piping system may have advanced pipe joint cracks resulting in leachate leaks. The landfill leachate conveyance system is an important component of managing leachate levels in the landfill. Tidal influences and to some extent precipitation can

penetrate the landfill cap and cause liquid levels to rise. It is important to keep the system functioning so that water level gradients are drawn toward the extraction wells where the leachate can be pumped out and conveyed to the Water Pollution Control Facility for further treatment. Under a Waste Discharge Requirement issued by the California Regional Water Quality Control Board (Water Board), buildup or mounding of leachate levels which can adversely impact waters of the State is prohibited. Therefore, it is essential to have a functioning leachate extraction system at all times.

City staff noticed a leachate stain at the landfill in April and immediately reported it to the Water Board. The City received a Notice of Violation on April 25, 2017 from the Water Board because of said failure of the leachate conveyance system. City staff investigated the failure and what may have contributed to it. There was significant work required to determine the source of the failure and work with the Water Board to identify the appropriate corrective measures. The system also experienced a failure on July 28, 2017 and two more in September.

Staff has been keeping the Water Board informed and coordinating its work with the Board staff.

DISCUSSION

The purpose of this project is to replace the existing leachate conveyance system with a new, more robust high density polyethylene piping system. In addition, new vaults will be installed with isolation valves and cleanout fittings to allow staff to isolate individual well heads while continuing to leave the remain wells in service. These vaults will allow staff easier access to isolate parts of the system, and fittings to allow pipe segments to be cleaned as necessary.

Staff has prepared plans and specifications for replacement of the leachate conveyance system. In addition, staff has worked closely with the Water Board and the Alameda County Department of Environmental Health to develop a health and safety plan to protect human health and the environment from exposed wastes and/or leachate during construction. In addition, staff has worked with the East Bay Regional Parks District to coordinate work that will take place in the public access paths during construction.

ECONOMIC IMPACT

There are no short-term economic impacts to Hayward customers. This cost will be absorbed as part of the maintenance budget for the landfill.

STRATEGIC INITIATIVES

This agenda item is a routine operational item and does not relate to one of the Council's Strategic Initiatives.

FISCAL IMPACT

The estimated project costs are as follows:

Design and Administration Services – City Staff	\$ 15,000
Construction Contract (Estimated)	\$120,000
Administration, Inspection & Testing – City Staff	\$ 20,000
Compaction Testing	\$ 5,000
Permitting	\$ <u>10,000</u>
Total	\$170,000

The failure of the leachate system is unexpected and therefore is not included in the Adopted FY 2018 Capital Improvement Program (CIP).

Annual landfill maintenance, which includes mowing, monitoring, minor repairs, and other routine tasks, is funded by the Wastewater Operating Fund. The FY 18 budget is approximately \$290,000. There is not sufficient budget to cover the cost of the project, but given that it is necessary and required to meet the City’s West Winton Landfill Maintenance Order, staff will request that funds be appropriated from the fund balance at the time of the request to award the construction project.

SUSTAINABILITY FEATURES

The leachate conveyance system is essential to protecting the waters of the state from potential degradation that might be caused by groundwater and tidal waters mixing with landfill leachate. Improving the conveyance system will reduce the potential for leachate to be conveyed via groundwater or tidal marshes to the San Francisco Bay.

PUBLIC CONTACT

Staff has contacted the affected agencies (i.e., Regional Water Quality Control Board, East Bay Regional Park District, Alameda County Department of Environmental Health, and Waste Management) about this project and is closely coordinating this work with said agencies.

SCHEDULE

The following schedule has been developed for this project:

Approval of Plans and Specifications and Call for Bids	October 30, 2017
Receive Bids	November 30, 2017
Award of Construction Contract	December 12, 2017
Issue Notice to Proceed	January 5, 2018
Construction Completion	March 30, 2018

There is a very tight window of time to perform this work which is when there have been a few days of reprieve from heavy rains and before late summer which is the nesting birds season.

NEXT STEPS

Following Council approval, staff will advertise the project for public bidding. Staff will return to the City Council for award of the construction contract after bids have been received and reviewed.

Prepared by: Suzan England, Senior Utilities Engineer

Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:



Kelly McAdoo, City Manager