Reviewed by:

\_ Date: <u>2/8</u>//9

DATE:

February 8, 2019

TO:

General Manager

FROM:

Director of Engineering and Compliance/District Engineer

SUBJECT:

Approve a Contract with Golder Associates, Inc. for the Field Investigation, Design, and

Construction Documents of Module 7 Landfill Base Liner System

**RECOMMENDATION:** That the Board of Directors approve a contract with Golder Associates, Inc. for Field Investigation, Design, and Construction Documents of Module 7 Landfill Base Liner System in the Amount of \$124,098.

# **BACKGROUND**

In FY 2017/18, the Board approved an agreement with Golder Associates, Inc. to provide professional engineering services related to the design of the Module 6 landfill base liner system. The Module 6 engineering plans, specifications and contract documents are being bid at this time. Module 6 construction bids are scheduled to be presented at the March 15, 2019 Board Meeting. Module 6 is planned for construction during the summer of 2019 and is anticipated to have a interim service life of about two years (2021). Staff recommends that the process of field investigation, design, and construction document preparation of Module 7 be initiated at this time.

## **DISCUSSION**

The 14-acre Module 6 will have a composite liner meeting the requirements of the Code of Federal Regulations (40CFR258) and Title 27 of the California Code of Regulations, similar to the liners constructed for Modules 3, 4, and 5. Module 6 will be primarily located directly south of the existing lined Module 4. The Module 6 lining system will be tied-into the existing lining system of the adjacent modules. The engineered composite liner system will consist of a 2-foot thick low permeability compacted clay layer overlain by a 60-mil thick high density polyethylene (HDPE) geomembrane and a leachate collection and removal system (LCRS).

The Module 7 base liner system will be similar to Modules 4, 5, and 6. However, there are a couple options for the location of Module 7 (see attachment) that require investigation, analysis, and assessment before the preferred option can be selected for final design. One option is located along the south side of Module 6 and the other option is located to the east of Module 6 along the southern edge of Module 5. There are benefits and challenges to both options that require detailed analysis and assessment. It is important that this work be done at this time in concert with the landfill Master Plan update (refer to separate February 15, 2019 Board agenda item). The decisions for Module 7 will affect the timing of both storm water and leachate collection,

storage, and disposal infrastructure development. The Master Plan update scope of work will evaluate the landfill development sequence including, but not limited to, both the storm water and leachate collection, storage, and disposal infrastructure development plan. Since there is a potential that the Module 7 design may require new regulatory permitting should an Engineered Alternate Design (EAD) be needed, staff is requesting that this work be initiated at this time to allow for sufficient 'lead time' prior to the time when construction would need to occur.

The Module 7 liner project will be funded from the tipping fees collected by the District. The proposed Module 7 will have a waste capacity of approximately 1,200,000 tons. At an average landfill disposal rate of 600,000 tons per year, it will have an interim service life of approximately 2 years (from 2021 to 2023).

## PROJECT SCHEDULE

Staff anticipates the following project schedule for Module 7:

ITEM	DATE
Phase 1 – Investigation & Design	(this scope of work)
- Design Notice To Proceed	February 2019
- Design Basis Memorandum	May 2019
- Field Investigation	June 2019
- Enginéering Analysis	July 2019
- Draft Design Report	August 2019
- Final Design Report	October 2019
Phase 2 - Regulatory Review Period	February 2020
- Contingency - Regulatory Permitting	August 2020
Phase 3 – Construction Call for Bids	October 2020
- Pre-Bid Conference	November 2020
- Bid Opening	December 2020
- Award of Construction Contract	January 2021
- Notice-to-Proceed to Contractor	February 2021
- Substantial Completion	June 2021
- Final Construction Certification	July 2021
- RWQCB Approval of Module 7	August 2021

#### PROJECT BUDGET AND ESTIMATED COSTS

The approximate \$125,000 cost for the Module 7 field investigation, design, and construction document development by Golder Associates, Inc. was not part of the Fiscal Year (FY) 2018/19 approved Capital Outlay Budget. It is a cost that if approved by the Board would occur over the remainder of the current FY and a portion in the next FY. Due to the \$5 million compost site capital being deferred to FY 2019/20 and the Module 6 project tracking underbudget and into the next FY budget, there is approximately \$6.5 million of the Board approved FY 2018/19 Budget available, significantly in excess of the ~\$125,000 needed for this contract.

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# STRATEGIC PLAN

Maintain compliance with state, federal and local regulation requirements and provide volumetric capacity to allow continued use of the landfill for solid waste disposal services.

# CONCLUSION

It is therefore recommended that the Board approve a Contract with Golder Associates, Inc. for the Field Investigation, Design, and Construction Documents of Module 7 Landfill Base Liner System in the amount of \$124,098. Available funds from the District's Board approved FY 2018/19 Capital Outlay Budget will be used for this project during the current fiscal year and will also be defined in the FY 2019/20 Capital Outlay Budget.

Guy R. Petraborg, P.E.

Attachment

