

MEMO



Consent

Item #: 9

Meeting Date: September 23, 2022

To: Board of Directors

From: Senior Engineer, David Ramirez

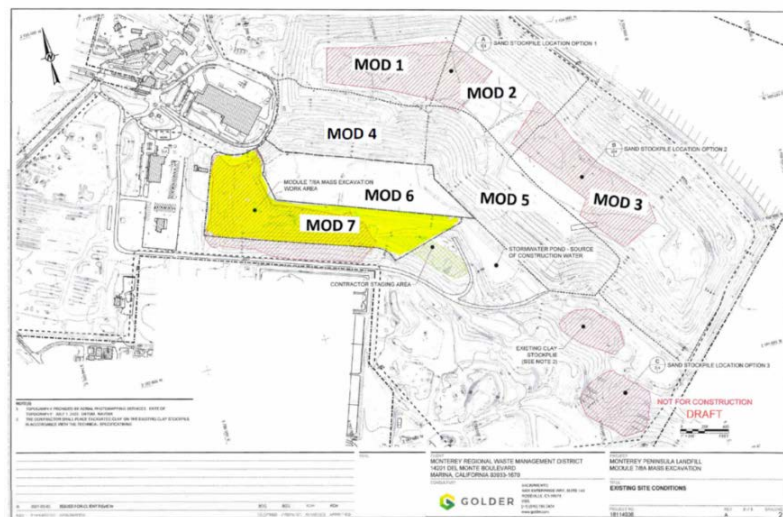
Approved by: General Manager, Felipe Melchor

Subject: Project Update - Landfill Module 7 Mass Excavation Phase 2

INFORMATION ONLY: That the Board receive the project update report for Landfill Module 7 Mass Excavation Phase 2.

BACKGROUND

ReGen Monterey's existing landfill infrastructure is composed of six landfill modules that have been developed over the facility's history since 1965. The Landfill Module 7 is next in line for development of the waste containment system for that area. With the Board of Director's prior



approval, staff has been developing the series of projects necessary to prepare the site for construction of its next lined landfill module.

The development of the site began over 10 years ago when ReGen partnered with the Don Chapin Company to mine quality sand from the existing bluff in preparation for future landfill development. Through this partnership approximately 80% of the sand was excavated and the District received royalty payments for each ton of sand that was sold.

The next stage in development was the Module 7 Mass Excavation Phase 1 which kicked off in 2021 and 320,000 cubic yards of soil was excavated from the Module 7 footprint area. The work was completed to an interim elevation that remained above the groundwater table and also ensured storm water drainage to appropriate locations.

In June of 2022 the Board of Directors authorized staff to contract with David Crye General Engineering Contractors to complete Phase 2 of the Landfill Module 7 Mass Excavation Project. The scope of Phase 2 was to excavate another 100,000 CY of soil and get the Module 7 footprint

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area close to final sub-grade elevations for liner installation. This project is currently underway and this memo is being provided to give an update on the project's progress, changes encountered, and the next phase of construction.

Staff planned a phased construction for Module 7 with Phase 2 being the second mass excavation effort to be completed and Phase 3 being final excavation and base liner construction planned for next spring. Following the mass excavation phase, the future Module 7 lining phase will have a composite liner meeting the requirements of Title 27 of the California Code of Regulations, and will be similar to the liner systems constructed for Modules 3, 4, 5 and 6. The engineered composite liner system consists of, from bottom to top, a 2-foot thick low permeability compacted clay layer (utilizing the clay that has been stockpiled onsite), overlain by a 60-mil thick high density polyethylene (HDPE) geomembrane. Placed directly over the composite liner is a leachate collection and removal system (LCRS). The LCRS is typically a 1-foot thick sand drainage layer with a series of perforated HDPE pipes bedded in gravel and wrapped in geotextile, which conveys leachate from the liner floor to a sump where it can be removed by a pumping system. A 2-foot thick layer of cover material will be placed over the sand drainage layer to further protect the liner from damage during placement of the first lift of waste.

DISCUSSION

As the Phase 2 project has progressed there have been two changes to the scope of the work. The first is that the Module 7 footprint was expanded by 3.5 acres due to an updated design approach for the Module 7 drainage area. All of the Phase 2 excavation work was completed in August. The second change is that the groundwater flowrate out of the slopes requires that an engineered solution be employed to mitigate potential slope impacts during rain events prior to next year's liner construction phase. The engineered solution is currently being developed by the project Engineer of Record and should be deployed within the next two weeks. This will be reported on in a future project update.

Separate from these Module 7 project related tasks, there have also been three landfill operational elements that the project contractor has assisted the District with. These tasks included i) hauling excavated sand to the landfill slopes for long term intermediate cover, a regulatory requirement for landfilled areas that are not anticipated to receive waste in the next 180 days, ii) erosion control on the newly covered long term intermediate cover slopes and finally, iii) hauling baserock material for the landfill's two wet weather tipping pads. These tipping pads ensure that customer vehicles can get in and out of the site during wet weather.

Overall, the Landfill Module 7 Mass Excavation Project Phase 2 is nearing substantial completion. The remaining work includes winterizing the project area with erosion control measures and deploying the engineered solution for the slopes at the groundwater seeps. The Phase 2 project is ahead of the anticipated completion date of November 2022.



PROJECT BUDGET

The mass excavation construction contracts were the first two phases of Module 7 construction. The third phase will consist of final fine grading, liner system installation, and installation of both leachate and groundwater removal and storage systems. Phase III will be the subject of a separate Board approval at a future Board Meeting in early 2023. The entire Module 7 project has a FY 2022/23 approved budget of \$8.5 million. An estimated \$1.25 million was budgeted for Mass Excavation Phase 2. With both the operational expenses and scope changes, the expenses incurred are trending towards the project's budgeted amount.

CONCLUSION

The Landfill Module 7 Mass Excavation Project Phase 2 is trending to be completed within the anticipated project timeline and budget. Phase 3 of the project will involve construction of a regulatorily approved liner system in Spring 2023. The future construction phase of the project will be presented to the Board in the coming months with the anticipated construction timeline of Spring 2023.