



COUNCIL REPORT

DATE: April 25, 2023

CATEGORY: Consent

DEPT.: Public Works

TITLE: **Shoreline PVC Landfill Gas Header Replacement, Project 23-41—Authorize Professional Services Agreement**

RECOMMENDATION

Authorize the City Manager or designee to execute a professional services agreement with WSP USA Inc. to provide design and construction support services for Shoreline PVC Landfill Gas Header Replacement, Project 23-41, in a not-to-exceed amount of \$157,000.

BACKGROUND

The Mountain View Shoreline Landfill is a closed Class III solid waste landfill owned and operated by the City of Mountain View. The closed landfill is located north of U.S. 101 in the relatively flat-lying tidal area south of the San Francisco Bay. It is bordered to the east by Stevens Creek and to the west by Permanente Creek. The original landfill included a bottom liner to prevent migration of waste directly into the environment, a leachate collection system, and a gas collection and control system (GCCS). When the landfill was closed, an engineered low-permeability cap was installed to contain lateral migration of leachate that could contaminate surface water, minimize the infiltration of precipitation that generates leachate, and enhance the collection of landfill gas which has been used as an energy source or destroyed in the landfill gas flare system.

The GCCS is a major component of waste landfill systems consisting of vertical wells connected to a buried piping system. It is designed to help control odors, minimize nonmethanogenic organic compound releases to the atmosphere, and increase safety by controlling migration of gases. Maintenance of the GCCS is required as part of the City's Permit to Operate issued by the Bay Area Air Quality Management District. Since most of the system piping was installed in and above waste, piping separations, joint failures, grade changes (causing condensate to build up and block gas flow), and failure of vertical well casings have occurred over time with waste decomposition and settlement.

In June 2021, staff discovered and performed a spot repair of a broken polyvinyl chloride (PVC) gas pipe header approximately 10 yards east of Shoreline Boulevard, near the Shoreline Gatehouse. As the remaining PVC pipe header is brittle and continues to deteriorate, the recommended project is to replace the existing PVC pipe header with high-density polyethylene

(HDPE) to prevent fugitive emissions and reduce oxygen in the landfill gas. HDPE was selected due to its flexibility and resistance to sunlight, allowing for above-ground installation without the concerns of it forming cracks and allowing oxygen intrusion. Use of HDPE is in line with the regulatory requirements that mandate maintaining landfill gas composition under 5% oxygen for safe destruction using flares and microturbines.

The recommended project includes the design of approximately 1,000 linear feet of landfill gas headers and appurtenances, from south of the Shoreline Maintenance Building (Maintenance Building) to east of the Shoreline Gatehouse as highlighted in Figure 1.



Figure 1: Location Map

ANALYSIS

In February 2022, the City issued a Request for Proposals (RFP) for engineering services for design of the landfill gas header replacement. Two firms responded to the RFP. A review panel comprised of Public Works staff deemed WSP USA Inc. to be the best-qualified firm based on the merits of their written proposal, experience in completing similar projects, demonstrated competence, and understanding of the project.

The project's scope of work consists of:

- Evaluation of a new header realignment;
- Preparation of environmental documents and obtaining regulatory permits;
- Utility potholing;
- Designing the replacement header; and
- Providing bid and construction support.

The recommended not-to-exceed contract amount of \$157,000 includes \$117,000 for basic services and reimbursable expenses and an additional services amount of \$40,000 for potential geotechnical work and unforeseen items. The recommended fees are within the ranges typically charged for such services, and staff considers this fee to be fair and reasonable for the scope of work required.

If the recommendation is approved, WSP USA Inc. can begin design in June 2023 and complete by spring 2024.

FISCAL IMPACT

Shoreline PVC Landfill Gas Header Replacement, Project 23-41, is funded with \$450,000 from the Shoreline Regional Park Community Fund and has sufficient funds for the recommended action (current available budget of \$322,535). No additional appropriation is being requested at this time.

ALTERNATIVES

1. Direct staff to reissue the RFP.
2. Provide other direction.

PUBLIC NOTICING—Agenda posting.

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