Legislation Details (With Text)

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Title:	Report regarding a resolution authorizing the City Manager to execute a consulting services agreement with Lotus Water of San Francisco, California for the Storm Drain Master Plan (sd2301) for $2,702,339 and authorizing a Budget Amendment 23.067 to add $2,580,000 for a total project allocation of $3,380,000. (Matt Ruble, Principal Engineer)		
Sponsors:			
Indexes:			
Code sections:			
Attachments:	1. Attachment 1 - Watershed Map, 2. Attachment 2 - Project Team, 3. Attachment 3 - Interview Scoring Summary, 4. Attachment 4 - Citywide SMP Excerpts, 5. Attachment 5 - Presentation		

Date	Ver.	Action By	Action	Result

Report regarding a resolution authorizing the City Manager to execute a consulting services agreement with Lotus Water of San Francisco, California for the Storm Drain Master Plan (sd2301) for $2,702,339 and authorizing a Budget Amendment 23.067 to add $2,580,000 for a total project allocation of $3,380,000. (*Matt Ruble, Principal Engineer*)

RECOMMENDATION

It is recommended that the City Council adopt a resolution authorizing the City Manager to execute a consulting services agreement with Lotus Water of San Francisco, California for the Storm Drain Master Plan (sd2301) for $2,702,339 and authorizing a Budget Amendment 23.067 to add $2,580,000 for a total project allocation of $3,380,000.

BACKGROUND/DISCUSSION

A Storm Drain Master Plan (SDMP) is an essential planning tool that enables a public agency to evaluate its storm drain system, identify deficiencies that can cause overflows, specify preventive maintenance practices, and develop a list of repair and replacement projects. Furthermore, the SDMP identifies problem areas that lead to flooding or inflow & infiltration (I&I) issues on the City's sanitary sewer system. These projects, and their approximate costs, can then be incorporated into future Capital Improvement Program (CIP) projects. An overview of the City's storm watersheds is included as **Attachment 1**.

The City of South San Francisco (City) last updated the SDMP in 2016. Typically, Storm Drain Master Plans are reviewed or updated every ten (10) years. However, the prior study has been identified to have missing information or incomplete storm drain infrastructure data which could result in inaccurately scoped CIP projects. Therefore, staff recommends a review and update of the SDMP before reaching the 10-year mark. Additionally, staff seeks to expand the scope from the original project to include additional assessment of the entire storm network to determine actual physical condition, capacity, verify legal ownership, and perform

necessary debris removal to evaluate system components.

This SDMP study includes:

- A systemwide survey and assessment of the current storm drain infrastructure's pipes, manholes, drains, and pump stations
- A full catalog, inventory, and GIS database
- Defined and detailed storm drainage design standards specific for the City
- An updated hydraulic model
- Potential I&I sources affecting the sanitary sewer system
- An updated CIP of system improvements and maintenance

Optional Task 2 is to develop an Operations and Maintenance Manual that will inform Public Works on required maintenance activities and recurring preventative maintenance.

Optional Task 3 is to provide long term Program Support which will continually update the CIP cost estimates, seek to establish funding sources and revenues for storm drain improvements, and apply for grant funding for projects.

Staff issued a Request for Proposals (RFP) for professional engineering services on December 27, 2022, on the OpenGov procurement website. Five (5) proposals were received on the due date of February 13, 2023. Proposals were received by BKF Engineers, Lotus Water, Michael Baker International, Inc., Schaaf & Wheeler, and Wood Rodgers, Inc. After reviewing the submitted proposals, interviews were held for the five proposing consultants on March 6 and 7, 2023. The interview panel consisted of the City Engineer/Director of Public Works, Deputy Director of Public Works, and two (2) engineers from the Public Works Department.

Selection of consulting services is not based on the lowest bidder, but on the firm's expertise, experience, and references. Once the most qualified firm is determined, staff negotiates fees and any changes deemed necessary to obtain a reasonable cost for the scope of work. Because this project is locally funded, there are no Disadvantaged Business Enterprise (DBE) requirements.

Based on the interviews and the qualifications submitted, Lotus Water demonstrated they have the staffing availability and engineering expertise that is required to perform the SDMP. Staff recommends that Lotus Water undertake the SDMP based upon the firm's experience, resources, familiarity of South San Francisco, and positive references. **Attachment 2** is the Interview Evaluation Scoring Summary.

Lotus Water has extensive expertise in urban stormwater management and sustainable infrastructure design. They have prepared master plans for numerous communities in California. Lotus Water has also worked for the City as the design consultant on the award-winning Orange Memorial Park Stormwater Capture and Reuse Project. Staff called the firm's references, and they provided positive feedback regarding their performance. The firm's project team sheets are included as **Attachment 3**.

Lotus Water's sub-consultants include Towill, Inc. for property boundary and easement surveys, Presidio Systems, Inc. for conveyance system assessments, and V&A Consulting Engineers, Inc. for pump station condition assessments.

Staff negotiated the finalized scope and fee and has prepared a consulting service agreement for the consultant for an initial term of June 3, 2023 to August 1, 2024. Staff requests that a contingency be included in the budget to cover costs that may result from unforeseen complications during the survey and condition assessments. No

compensation beyond the new consultant's contract not-to-exceed amount of $2,702,339 will be authorized without a mutually agreed upon level of effort and corresponding contract amendment.

The following details the project budget:

Lotus Water Consulting Services	$ 2,702,339
Contingency for Survey & Design (15%)	$ 405,350
Eng Management & Administration (10%)	$ 270,234
Total Project Design Budget	**$ 3,377,923**
Current Total Project Funding	$ 800,000
+ Requested Project Funding Increase (BA)	$ 2,580,000
Proposed Total Project Funding Budget	**$ 3,380,000**

FISCAL IMPACT

The Storm Drain Master Plan was previously authorized for a total project design budget of $800,000 from the Storm Water fund. Recent storm events have further highlighted the need to accurately document, map, and assess the actual physical condition of our citywide storm network. To complete the in-depth condition assessment necessary to determine future improvements the project will need an additional $2,580,000 of CIP funding budget to cover the Total Project Design Budget.

Sewer Enterprise Funding

Staff recommends transferring funds from the Sewer Enterprise Fund to support this Storm Drain Master Plan due to the major impacts of stormwater runoff have on the City's sanitary sewer conveyance system and the Water Quality Control Plant treatment costs.

As studied by Akel Engineering, the Citywide Sewer Master Plan completed in 2022 assessed that the largest issue facing the City's sewer system was inflow and infiltration (I&I) which come from stormwater runoff inadvertently entering the sanitary sewer system. The study determined that during a 10-year 24-hour design storm, the peak wet weather flows increase as much as 1.6 times in the East of 101 and 4.6 times in the West of 101 over the peak dry weather flows. The same design storm increased the peak flow at the WQCP by 4 times over the peak flow. See **Attachment 4** for excerpts from the Citywide Sewer Master Plan.

Stormwater inflow and infiltration (I&I) can have a significant impact on the performance of a sewer system, especially during heavy rainfall events. Here are some of the reasons why addressing stormwater I&I is essential:

- Capacity: During heavy rainfall, stormwater can enter the sewer system through manholes, cracks, leaks, and other openings in pipes or joints. This can lead to an overload of the system, causing it to back up and potentially overflow. This can result in sewage spills, property damage, and health risks.

- Treatment costs: The inflow and infiltration of stormwater into the sewer system can also increase the cost of treatment. Treatment plants are designed to treat a specific amount of wastewater, and when the volume of water exceeds that limit, it can be more challenging to treat effectively, or the excess is discharged directly into Colma Creek which results in fines and impacts to the environment.

- Maintenance costs: The excess stormwater that enters the sewer system can also cause damage to pipes and other infrastructure, leading to increased maintenance and repair costs.

- Compliance: Regulatory agencies often require local governments to address stormwater inflow and infiltration as part of their sewer system management plans. Failure to comply with these regulations can result in fines and other penalties.

- Environment: When stormwater enters the sewer system, it can carry pollutants such as oil, grease, and chemicals, which can harm aquatic life and the environment.

Although referred to as the Storm Drain Master Plan, because of the issues listed above, the study will also look at how storm water is entering the sanitary sewer system, in addition to how it is not getting into or escaping the storm drain system. The study will identify measures to reduce I&I and thus alleviate the impacts on the sanitary sewer system and related costs of sewer service customers. When considering the impacts to the sanitary sewer collections system and the water quality control plant (WQCP), utilization of the Sewer Enterprise fund as a funding source is appropriate, and staff recommends adding $2,580,000 from the Sewer Enterprise Fund to the Project Budget. The Finance Department has designated Budget Amendment 23.067 for this. The recommended amount represents a preliminary allocation of total Storm Drain Master Plan costs between the sanitary sewer and storm drain funds. In the event that the study shows that a greater portion of the costs should be allocated to the storm drain fund, the storm drain fund will repay the sanitary sewer fund, and this will be documented by staff.

RELATIONSHIP TO STRATEGIC PLAN

The proposed engineering service agreements are consistent with the City's Strategic Plan initiative of Quality of Life by helping to provide safe and well-designed infrastructure.

CONCLUSION

Staff recommends the City Council adopt a resolution authorizing the City Manager to execute a consulting services agreement with Lotus Water of San Francisco, California for the Storm Drain Master Plan (sd2301) for $2,702,339 and authorizing a Budget Amendment 23.067 to add $2,580,000 for a total project allocation of $3,380,000.

Attachments:

1. Watershed Map
2. Interview Scoring Summary
3. Lotus Water Project Team
4. Citywide Sewer Master Plan Excerpts
5. Presentation

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