



COUNCIL REPORT

DATE: December 5, 2023
CATEGORY: Consent
DEPT.: Public Works
TITLE: **Addendum No. 12 to Regional Water Quality Control Plant Basic Agreement**

RECOMMENDATION

1. Authorize the City Manager or designee to execute Addendum No. 12 to the Basic Agreement between the cities of Palo Alto, Mountain View, and Los Altos for the City of Palo Alto to construct the Joint Intercepting Sewer Rehabilitation Phase 1 Project at the Regional Water Quality Control Plant with a cost-share not-to-exceed amount of \$5,159,619 from the City of Mountain View.
2. Appropriate \$235,500 in the Public Works Department in the Wastewater Fund for the Joint Intercepting Sewer Rehabilitation Phase I Project. (Five votes required)

BACKGROUND

In 1968, the cities of Mountain View and Los Altos agreed to retire their wastewater treatment plants and approved a contract with the City of Palo Alto (Basic Agreement, also referred to as the Partners Agreement) for the acquisition, construction, and maintenance of a joint wastewater treatment plant at the site of Palo Alto's existing plant that was constructed in 1934. The new plant began operating in 1972. The Basic Agreement was originally set to expire on July 1, 2035 but was extended to December 31, 2060 as part of Addendum No. 8, approved in 2015.¹

In addition to providing wastewater treatment services for the cities of Palo Alto, Mountain View, and Los Altos, the Palo Alto Regional Water Quality Control Plant (Treatment Plant) provides services to the Town of Los Altos Hills, Stanford University, and the East Palo Alto Sanitary District under separate agreements with the City of Palo Alto.

¹ Historically, the amendments to the Basic Agreement have been referred to as "addenda," although the accurate term is "amendment." The parties to the Basic Agreement have continued the practice of using the term addendum for consistency.

The Treatment Plant is an advanced treatment facility that uses a multi-stage process to remove organic materials and other pollutants from approximately 16 million gallons per day (mgd) of wastewater generated in the service area. Per the Basic Agreement, Palo Alto owns and operates the Treatment Plant's wastewater treatment and disposal facilities and is responsible for managing capital improvements to the plant. The Basic Agreement is amended as needed to implement and fund major capital projects for the replacement of obsolete or end-of-life equipment.

In 2012, Treatment Plant staff developed a Long-Range Facilities Plan (LRFP) that reviewed existing and future (50-year time frame) capacity needs, plant condition and deficiencies, the impacts of potential regulatory changes, alternatives to the existing solids incineration and liquid treatment processes, site layouts for plant improvements and potential expansion, and preliminary cost estimates. The LRFP, which was the first comprehensive long-range plan since 1966, included recommendations to rehabilitate and replace existing facilities nearing the end of their useful life. The highest-priority projects are being implemented over multiple years to effectively manage resources and costs.

Based on the LRFP recommendations, the following lists the latest addenda to the Basic Agreement approved by Los Altos and Mountain View City Councils with the City of Palo Alto:

- Addendum No. 10 in 2020 to approve funding for the design and construction of the Primary Sedimentation Tank Rehabilitation Project.
- Addendum No. 11 in 2022 to increase the maximum financing for the Primary Sedimentation Tank Rehabilitation Project to \$19.4 million and to construct the Secondary Treatment Upgrades Project with a maximum financing authorization of \$193 million. The Primary Sedimentation Tank project is in construction and will be completed in spring 2024. The Secondary Treatment Upgrades project is also under construction and will be completed in 2027.

ANALYSIS

The Treatment Plant owns and maintains a trunk sewer known as the Joint Intercepting Sewer (JIS), which conveys raw sewage from Mountain View, Los Altos, Los Altos Hills, and a portion of Palo Alto. The JIS was constructed in 1972 and consists of multiple sections of 60" and 72" diameter reinforced concrete pipes. The original pipe is unlined with no external coating. The pipes are approximately 9,000' long.

The pipeline's alignment starts at a metering station located at 1151 San Antonio Road, on the border of Palo Alto and Mountain View. The alignment runs north-west and below-grade through the Baylands Nature Preserve and along the western edge of the City of Palo Alto's closed landfill. The pipeline ends at a junction box inside the Treatment Plant.

The need for rehabilitation or replacement of the JIS was first identified in the LFRP, and confirmed in 2020 via a condition assessment, which included closed-circuit television inspection, sonar inspection, and visual inspections of the entire pipe length. Based on the findings, the JIS Rehabilitation project was divided into two phases:

- **Phase 1**—The downstream sections (approximately 2,364') closest to the Treatment Plant, which exhibited the greatest deterioration. The lower section of pipeline has exposed and corroded structural rebar, spalling and cracked concrete, and a noticeable offset and separation at some pipe joints and manholes. This phase will be constructed now with the funding approved in the proposed Addendum No. 12 to the Basic Agreement.
- **Phase 2**—The upstream sections (approximately 6,600' to the metering station) showed less severe deterioration. These sections of the JIS will be reassessed in the next five to 10 years to establish the timing and need for the Phase 2 rehabilitation work.

JIS Rehabilitation Project Phase 1

This Joint Intercepting Sewer Rehabilitation Phase 1 Project (Project) will rehabilitate the deteriorated 2,364' section of pipeline and manholes as shown in the figure below labeled as Phase 1.



Rehabilitation includes repair and recoating the interior of existing manholes and the influent junction box. Pipe rehabilitation will use a cured-in-place pipe method, in which a resin-impregnated liner is inserted, expanded, cured, and adhered onto the existing pipe's interior surfaces. The cured liner will become a new pipe inside the existing host pipe, providing structural strengthening as well as smoother and corrosion-resistant surfaces that would not reduce the trunk sewer's service capacity.

Bid Process

On August 29, 2023, the City of Palo Alto solicited formal bids from contractors for this project. Three bids were received on October 16, 2023, with bid prices ranging from \$7,347,700 to \$11,051,740, and Palo Alto intends to award to the lowest bidder.

Palo Alto plans to hire a consultant to perform the inspection and construction management for the project for a cost of \$852,500. To provide flexibility for Palo Alto to manage the project, they have requested an additional contingency of 10% to the contractor's project costs. Project construction is expected to start in spring 2024 and be completed by the end of 2024.

FISCAL IMPACT

The cost-share allocation is based on each partner agency's share of the sewer interceptor's maximum allocated flow capacity. Maximum flow capacity is reached during high-flow events during wet weather. Mountain View's cost share is 62.5% as shown in Table 1 below.

Table 1: Maximum Flow Capacity Allocation and Cost Share

Item	Mountain View	Palo Alto	Los Altos	Los Altos Hills	Total
Maximum Allocated Flow Capacity (mgd)	50.00	14.59	12.00	3.41	80.00
Allocated Share (percent)	62.50%	18.24%	15.00%	4.26%	100.00%

Approximately \$1.7 million of the project expenses involve work on the Treatment Plant site, which is the responsibility of all partner agencies. As such, the East Palo Alto Sanitary District and Stanford University will also share in project expenses for the in-plant bypass pumping systems, along with Mountain View, Palo Alto, Los Altos, and Los Altos Hills. The cost share for this work element will be based on each agency's share of the ongoing pay-as-you-go capital budget, which is approximately as follows: Palo Alto 35%; Mountain View 40%; Los Altos 11%; Los Altos Hills 2%; and the remaining 12% from the other agencies.

Based on the cost shares described above, the detailed cost breakdown for the JIS Project is listed in Table 2 below.

Table 2: Construction Expense by Partner Agency

Partner Agency	Cost Share
Mountain View	\$5,159,619
Palo Alto	1,947,106
Los Altos	1,262,089

Partner Agency	Cost Share
Los Altos Hills	338,516
East Palo Alto Sanitary District	104,904
Stanford University	122,736
Total Construction Expense (includes 10% contingency)	\$8,934,970

Following the completion of the LRFP in Fiscal Year 2014-15, the City adopted a 10-year plan to include a 2% wastewater rate increases annually to generate sufficient revenue to fund the City's share of the Treatment Plant's rehabilitation project costs. The JIS Project was estimated at \$4.7 million, and the cost has been included in the City's wastewater rate projections since 2015. The project was to be paid in two 50% increments: one in Fiscal Year 2023-24 and the other in Fiscal Year 2024-25. Based on the estimate, \$2.3 million was included in the Fiscal Year 2023-24 Adopted Budget. However, the low bid is \$471,000 higher than the Engineer's Estimate, and other project costs have risen since the LRFP was completed. Since the City needs to make the first 50% payment in this current fiscal year, an additional \$235,500 is required to support this project in Fiscal Year 2023-24, and the remaining \$235,500 will be included in the Fiscal Year 2024-25 Recommended Budget.

ALTERNATIVES

1. Do not approve the Addendum to the Basic Agreement and direct staff to request that the City of Palo Alto identify potential alternatives, such as any opportunities to revise the construction plans and rebid the work.
2. Provide other direction.

PUBLIC NOTICING—Agenda posting.

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