

REPORT TO COUNCIL

SUBJECT

Adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the Primary Treatment Facility Project at the Water Pollution Control Plant; Provide an Update on Equipment Purchasing; and Approval to Proceed with the Project

BACKGROUND

In May of 2013, Carollo Engineers was selected to perform services related to master planning of the Water Pollution Control Plant (WPCP) and the design of the Primary Treatment Facility project (RTC 13-108). The design of the primary treatment facility, which takes the raw sewage from the conveyance pipelines and removes solids and sediments before sending it to the secondary treatment process, will be the first major project under the plant reconstruction program.

The Primary Treatment Facility project replaces existing, aging facilities at the WPCP, including replacements of the headworks facility, primary treatment facilities, switchgear building, standby generator, and heat recovery system at the power generation facility. Access roadway and fencing is also being altered or replaced, and sludge dewatering is being relocated within the WPCP site. These replacements are needed at the WPCP in order to update seismically-deficient facilities, and comply with permit requirements. A stormwater channel along the southeastern perimeter of the WPCP is being filled and replaced with a box culvert or pipe to accommodate proposed facilities and access roads. The proposed facilities will operate in a similar fashion as the existing facilities and will be designed and constructed in three separate bid packages:

- Bid Package 1 - The site preparation package will clear the site, install a new drainage system, resolve any utility conflicts, and grade the site.
- Bid Package 2 - The construction package which will include building concrete tanks, installing pumps, electrical systems, automation systems and controls.
- Bid Package 3 - The final package is for the demolition of the old primary treatment facility, which will clear the way for the future reconstruction projects.

Design work is progressing and the process of obtaining permits for the drainage improvements in the wetlands is underway. The permits are expected to be issued in the fall of 2015 and construction is expected to commence at the end of 2015. The construction cost for all three bid packages is estimated to be approximately \$98 million.

EXISTING POLICY

General Plan, Chapter 7, Policy Goal EM-7- Effective Wastewater Treatment: Continue to operate and maintain the Water Pollution Control Plant, using cost effective methods, so that all sewage and industrial wastes generated within the City receive sufficient treatment to meet the effluent discharge and receiving water standards of regulatory agencies.

ENVIRONMENTAL REVIEW

In November 2014, the environmental sub-consultant for the project, ESA, prepared an Initial Study (IS) for the Primary Treatment Facility project. The IS determined that the proposed project could have significant effects on the environment; however, because revisions to the project have been made and feasible mitigation measures identified, all impacts can be avoided or mitigated to a level of non-significance.

A Draft Mitigated Negative Declaration (available on the City website at: <http://sunnyvale.ca.gov/Departments/PublicWorks/PublicWorksDivisions/Engineering.aspx>) for the Primary Treatment Facility was prepared and circulated for public review from November 15, 2014 to December 16, 2014. The Final Mitigated Negative Declaration, including the Mitigation Monitoring and Reporting Program and the responses to comment letters (Attachment 1), is presented today for Council adoption.

DISCUSSION

Mitigated Negative Declaration

The possible environmental impacts were analyzed as part of the IS. It was identified that the project could displace birds and bird habitat as well as wetlands, and generate truck traffic and emissions. The project requires mitigation to ensure that construction activities do not significantly impact the environment. The mitigation measures outlined are related to the burrowing owl and other birds; wetland habitat and tree replacement; the potential inadvertent exposure of cultural resources; and construction noise, traffic, and emissions. All of the potentially significant impacts were reduced to a less-than-significant level with mitigation measures proposed as part of the project.

In addition to the mitigation measures identified, permits or approvals from other agencies are anticipated to be necessary. Permits include: U.S. Army Corps of Engineers (Corps) Section 404 Individual Permit, Regional Water Quality Control Board (RWQCB) Section 401 Certification, San Francisco Bay Conservation and Development Commission (BCDC) permit for the Package 2 primary effluent pipeline, and California Department of Fish and Wildlife (CDFW) Section 1602 Lake and Streambed Alteration Agreement. The permit applications with these agencies have been initiated; however, state and regional agencies cannot issue permits and approvals until the CEQA document has been adopted by the lead agency.

The first package of the project is expected to be ready for construction bidding in fall 2015. During construction, a qualified biological monitoring consultant will be involved in the project to ensure that all required biological mitigations are adhered to. The contractor is also required to comply with Bay Area Air Quality Management District (BAAQMD) standard air quality protective measures.

Standardized Equipment Purchasing

Throughout the development of the master plan and the design of the Primary Treatment Facility, tests were done to determine various sewage characteristics that the WPCP receives. Based on the results of these tests, equipment and technologies were explored to determine which ones would provide the best treatment for the WPCP. Other items that were reviewed as part of the analysis included operational functionality, maintenance, cost, and the ability to minimize odors. In some cases multiple types of equipment could provide similar qualities of treatment; however, in a few cases a specific brand of equipment was recommended because it was best suited for the WPCP.

This was particularly the case when determining the best type of equipment to remove grit, wash fine grit, and wash/compact screenings so the material can be hauled off the site. Due to the results of the analyses that were performed, the recommendation was that the WPCP should install the three specific types of equipment listed below, which is only available from each manufacturer or its exclusively authorized representative. The cost associated with this equipment will either be negotiated and the equipment pre-purchased by the City, or the cost will be negotiated and provided to bidders so it can be included with their bids.

- Eutek Headcell Grit Vortex System (grit removal)
- COANDA Fine Grit Washer
- Huber SuperLauderer Screening Washer Compactor

Automation and controls equipment was another item that was rigorously reviewed and analyzed as part of the master plan and Primary Treatment Facility design. It is important to identify a particular system during the first project of the program because this system will set the standard for all future projects at the WPCP. Automation and controls systems are going to be the backbone of the plant, so it is imperative to not only obtain a system that is reliable but one that is easy to understand, program, operate and maintain for WPCP staff. In the event systems fall off line, WPCP staff will be required to troubleshoot the issue and bring the system back up so regulatory compliance can be maintained. The WPCP was also looking for a system that was cost effective, not only the upfront capital cost, but the cost associated with future equipment installation, integration, programming, technical support, operations and maintenance.

The consultants and WPCP staff spent a lot of time analyzing different automation and controls systems as well as visiting with various local plants to learn more about the different types of options available. The end result was the recommendation that the WPCP should standardize on Rockwell (Allen Bradley) programmable logic controllers (PLCs), motor control centers (MCCs), and human machine interface (HMI) software. Although this equipment is produced by one company, there are numerous suppliers for this brand so the City will be able to utilize competitive bid or proposal processes to obtain and install the equipment.

A summary table of the equipment and estimated costs noted above is included as Attachment 2.

FISCAL IMPACT

There is no fiscal impact with the adoption of the Mitigated Negative Declaration. A construction contract will be brought to Council for consideration at a later date.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

A notice was advertised in the local newspaper that the Initial Study/Mitigated Negative Declaration was available for public review and posted at the County Recorder's office, mailed to the County of Santa Clara, and sent to the California State Clearinghouse.

ALTERNATIVES

1. Adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the Primary Treatment Facility Project, and approve proceeding with the Project.
2. Do not adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the Primary Treatment Facility Project. Without adopting the Mitigated Negative Declaration the Project cannot proceed.

RECOMMENDATION

Alternative 1: Adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the Primary Treatment Facility Project, and approve proceeding with the Project.

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Reviewed by: John Stufflebean, Director of Environmental Services

Reviewed by: Manuel Pineda, Director of Public Works

Reviewed by: Grace K. Leung, Director of Finance

Approved by: Deana J. Santana, City Manager

ATTACHMENTS

1. Responses to Comments, Mitigation Monitoring and Reporting Program
2. Equipment Analysis Summary