

South Bayside System Authority (SBSA) Bulletin

(Winter 2006)

REGIONAL WASTEWATER TREATMENT FACILITY FOR BELMONT, SAN CARLOS, REDWOOD CITY & WEST BAY SANITARY DISTRICT

National Pollutant Discharge Elimination System Update

SBSA has submitted its National Pollutant Discharge Elimination System (NPDES) permit renewal to the San Francisco Bay Regional Water Quality Control Board, which has indicated they probably will not take any action until at least mid 2006 or later.

Larry Walker Associates is assisting SBSA with the permit renewal application and negotia-

tions. We are coordinating the issues from the 2001 permit that were appealed to the State Board with the new permit application.

As authorized by the Clean Water Act, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

SBSA Pollution Prevention Program Includes Industry Visits

The SBSA, in cooperation with federal, state, regional and local regulators, participates in several pollution prevention programs designed to reduce pollutants in our environment. We provide educational materials and on-site visits to many industries, including radiator shops, dry cleaners, vehicle repair shops, etc. Our pollution prevention program objectives include:

- Reduce the discharge of pollutants of concern to the sanitary sewers.
- Promote cost-effective, source reduction measures.
- Elevate pollution prevention awareness by the

public and by businesses.

- Implement applicable Bay Area region-wide pollution prevention practices.
- Maintain a flexible program adapting to changes on pollutants of concern.

SBSA Newsletter Goes Electronic to Your Email

Welcome to SBSA's second edition of our electronic newsletter, which replaces our previously mailed newsletter.

If you want to receive future editions, you need do nothing. If you prefer not to receive future editions electronically, please email us at sbsanews@yahoo.com and in the subject line put "remove from newsletter list."

Thank you and we hope you enjoy our electronic version, which saves resources and enables us to communicate more effectively and economically.

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Unusual Debris in Redwood City Causing Problems to Pump Station, SBSA Plant

The Commission has authorized the purchase of a spare sewage pump for the Redwood City Pump Station in the face of plastic debris, clothing and other unusual wastes being present in large quantities in the Redwood City sewage over the last year. A source has been identified and SBSA has initiated enforcement action to correct the problem.

This material has caused problems with normal operation and has damaged equipment both at SBSA's Redwood City Pump Station and at SBSA's treatment plant. While SBSA has taken many steps to reduce the debris problem, raw sewage pump damage has continued to occur.

The Redwood City Pump Station is equipped with six raw sewage pumps for pumping sewage from the city's collection system to the SBSA treatment plant. Over the past 15 plus years SBSA has maintained one spare pump rotating assembly for this station for the purpose of maintaining a minimal down time in the event of a pump failure. Major repairs of these pumps are most often performed by the manufactures authorized repair shop to insure factory specifications are maintained. SBSA staff performs the pump installations, repairs not requiring machine work, and all major PM tasks.

Presently, one of the critical concerns at the pumping station is the possible loss of multiple pumps and as result not being able to pump the necessary volume of raw sewage until the failed pumps could be repaired or replaced. Currently, if multiple pump failures occurred at a critical time such as during a major wet weather event where all installed pumps must be operational, SBSA would not be able to respond fast enough to avoid a possible raw sewage spill. For this reason, and due to the recently more frequent pump failures, staff recommended that one additional spare raw sewage pump be purchased to utilize as a second spare raw sewage pump for the Redwood City Pump Station.



Staff Participates in Meetings On Proposed Bair Island Restoration Plan

The SBSA staff recently participated in meetings the Port of Redwood City convened with the Army Corps of Engineers, Refuge Manager, and Congresswoman Anna Eshoo's office to coordinate activities that would use Port dredge spoils as the major source of fill for proposed Bair Island Restoration Plan.

SBSA's interest in the plan is to protect the force main that runs under Bair Island to the SBSA plant in Redwood Shores.

Dredged material would be used to raise the marsh plain elevation on Inner Bair Island prior to breaching in order to protect the SBSA sewer line. SBSA is working in Washington, D.C. to secure funding for the restoration work. The restoration plan includes over \$900,000 work for what is listed as "protection of SBSA force main" but there is no funding for actual construction at this time.



Update on SBSA Recycled Water Treatment Facility Projects

Three projects for recycled water treatment, storage, and pumping are progressing on the SBSA site.

SBSA is upgrading its recycled water treatment facility to provide recycled water for the City of Redwood City's Recycled Water Project when it begins in summer 2006. The \$19.6 million improvements will also allow for recycled water to other SBSA entities should they implement programs similar to Redwood City's.

The largest project is a 51,700 square foot concrete structure located on SBSA property that will contain disinfection contact tanks, storage tanks, a distribution pump station, and ancillary support equipment.

The perimeter of the area will have a security fence shielded from view by landscaping on the west and north sides of the structure. Access to and from this new facility will be through the existing treatment plant site.

The other two projects are improvements to existing water filters, and construction of connecting pipelines and utilities across the SBSA Buffer Pond.

Construction is scheduled to be completed by October 2006.

Photos from the recycled water treatment facility projects at SBSA taken on December 5, 2005



SBSA Outfall Project Update

Most of the \$3.6 million repair of the SBSA outfall line where it crosses under the Bay levee is completed. Because of the wet weather months, the project will be completed in early spring.

The project is replacing 260 feet of the existing reinforced concrete pipe with high density polyethylene pipe.

The effluent from the SBSA treatment plant in Redwood Shores is pumped through a 66-inch diameter pipe for discharge to Bay. A section of the outfall line, extending from about 180 feet inside to about 30 feet outside the levee, has had leaks at various locations since it was installed in 1970.

The repair project was borne out of a routine inspection of the levee where the outfall line passes under that discovered a water leak on the offshore side of the levee. Subsequent testing concluded that it was effluent from the treatment plant. This leak was not constant but was present when the tide was high and the effluent flow rate was high.

Attempts were made to repair the leak using divers working from inside the pipe. The divers found that many of the pipe joints had opened up and possibly were leaking. Thus, the project was approved by the Commission.

Incidentally, the treated wastewater is discharged into the deepwater channel of lower San Francisco Bay, approximately 3.5 miles southerly from the San Mateo-Hayward Bridge through a submerged diffuser about 6,300 feet offshore at a



A picture from the early construction.

depth of 50 feet below the water surface. The discharge point is approximately 2.5 miles from the Foster City shellfish beds.

New 10-Year Capital Plan

The Commission has approved a 10-year, \$46.7 million capital improvement plan (CIP) that includes \$12.5 million for the remaining Redwood city recycled water project. The CIP is a long list of projects with costs ranging from under \$10,000 to several million each. Objectives for the CIP include:

- No outside debt.
- Include costs to redo failing force main repairs done prior to 1990.
- Include Peak Wet Weather Capacity increase project costs.
- Develop a CIP reserve for unanticipated projects.
- Result in stable rate changes.

New Manager Selection On Track

Recruiting for a new manager to replace the retiring Jim Bewley is proceeding on schedule. More than 20 applicants are being reviewed with several scheduled to be invited for interviews. The Commission expects to interview the top three or four finalists in late January.

Employee News

SBSA is pleased to welcome three new employees in operations: James Pilkington, Francisco

SBSA Commission

Ronald W. Shepherd, Board Member, West Bay Sanitary District- Chair

Coralin Feierbach, Council Member, City of Belmont– Vice Chair

Jeff Ira, Mayor, City of Redwood City – Secretary

Thomas J. Davids, Council Member, City of San Carlos–Member

The SBSA Commission generally meets the third Wednesday of each month at 8 a.m. at the SBSA offices. But from time to time meeting days change, so please call 650-591-7121 if you are interested in upcoming meetings.