



# South Bayside System Authority

Providing wastewater services to residents and businesses in Redwood City, San Carlos, Belmont, and West Bay Sanitary District

**SBSA BULLETIN**

**Fall 2009**

## SBSA Commission

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Redwood City Council Member  
**Ronald W. Shepherd** Vice Chair  
West Bay Sanitary District Member  
**Robert Grassilli** Secretary  
San Carlos Council Member  
**Warren Lieberman**  
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## SBSA Offices

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## SBSA Staff

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Support Services Manager  
**Andrew Baker**  
Operations & Maintenance Manager  
**Teresa Herrera**  
Engineering Manager  
**Donna Allen**  
Environmental Health & Safety  
Manager

## *Manager's Corner*

### **By Daniel Child, SBSA Manager** **Using Biosolids to Generate Energy**



**SBSA** is part of the Bay Area Biosolids to Energy (BAB2E) Project. The BAB2E Coalition, a group of 16 wastewater agencies representing more than two million Bay Area residents, is pursuing development of a new regional facility that will use biosolids and other biofuels to generate renewable energy.

The Coalition came together to help address increasing challenges to current biosolids management as traditional approaches such as using biosolids for land application or daily cover at landfills are becoming more difficult and expensive to implement. Over the past few years, the Coalition has studied potential technologies and processes for biosolids treatment and reuse and is now evaluating potential sites that could serve in a regional capacity.

Northern California is already beneficially reusing approximately 80% of its biosolids either as daily landfill cover or as a soil amendment on agricultural fields, which is great, BUT ... regulatory agencies and communities are tightening restrictions on both practices.

At SBSA, until the regional solution is agreed upon, we are hauling our biosolids to, for the first time, the Ox Mountain Sanitary Landfill east of Half Moon Bay. The SBSA Commission recently renewed an agreement with Republic Services, Inc. (formally Allied Waste and before that Browning-Ferris Industries) to haul and dispose of our biosolids through June 30, 2010.

SBSA has had a long and beneficial relationship with Republic Services, dating to 1980. We were involved in helping Republic Services (then BFI) get Ox Mountain landfill permitted in the hopes that SBSA would have an in-county biosolids disposal option which would greatly reduce hauling costs. In a twist of fate, when the acceptance limits at the Ox Mountain Landfill were established, the SBSA biosolids contained constituents that exceeded the limits. Once it became apparent that SBSA was not able to utilize the Ox Mountain Landfill, Republic Services began hauling SBSA biosolids to the Forward Landfill near Stockton.

Recent analyses of SBSA's biosolids confirm they now meet the

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disposal requirements at Ox Mountain. With the Ox Mountain disposal site now being available for SBSA use, a new hauling and disposal rate has been negotiated.

The transportation cost in the proposed short term agreement will place hauling at \$200 per load to the Ox Mountain Landfill. This is a reduction of \$350 per load compared to current cost. The cost reduction is primarily due to the shorter distance being hauled. Tipping fees will increase to \$32 per ton which is an increase of \$10 per ton over current cost. Even though the tipping fees are being increased, SBSA will realize a savings of \$135 per load which equates to approximately a \$75,000 per year savings compared to the current cost for biosolids disposal.

The advantage of a one year contract with the option to extend for another year is two-fold. First, landfill space for biosolids disposal within the Republic landfill system is adequate to meet SBSA's needs for the next few years. The long term ability is less defined. Secondly, the proposed regional biosolids processing facilities will have been evaluated for their long term feasibility.

The regional biosolids processing facility effort is assessing currently available technologies, sighting of potential facilities, reviewing organizational and cost structures and encouraging other bay area treatment facilities to join and support the effort. Utilizing Ox Mountain, until a better long term option for biosolids disposal is identified, is the most cost effective and environmentally friendly option available to SBSA at this time.



SBSA's biosolids now going to Ox Mountain Sanitary Landfill east of Half Moon Bay.

## Commission Approves Temporary Administrative Office Relocation

**SBSA** administrative and engineering personnel will be relocating to The Pointe, 1201 Radio Road, for about 18 months starting in January, 2010.

The current SBSA Administration and Control Building was built in the early 1980's to house the administrative personnel for the agency and the operational control area for the treatment plant. Locker room and shower facilities were also included in the building for all operations and maintenance personnel.

The building is located on top of the primary sedimentation basins of the treatment process. This area is prone to the development of hydrogen sulfide gas, which when combined with water forms sulfuric acid. Sulfuric acid is very corrosive to most metals. The treatment plant was originally equipped with potassium manganate scrubbers which were designed to remove the hydrogen sulfide from the atmosphere around the primary sedimentation basins and thereby the Administration and Control Building.

Due to very high costs to operate and maintain the scrubbers, the decision was made many years back to remove the scrubbers. This saved money in the annual budget for operations and maintenance of the wastewater treatment facility; however, the steel studs of the Administration and Control Building have corroded severely due to this decision. At this time, the steel studs are corroded to the point they no longer provide adequate structural support requiring that the building be demolished and replaced.

Construction of the replacement building is anticipated to begin in late February to early March 2010 and will take approximately 14 months to complete. The proposed lease allows adequate time for relocation of staff and affiliated communication and computer systems to the temporary facilities prior to demolition of the existing structure.

In order to facilitate the construction of the replacement building, it is necessary to temporarily relocate all personnel and functions from the current building to other locations. To accomplish this task SBSA staff has

begun the process of relocating all control room functions to the maintenance supervisor's office area in the maintenance building. Modular office space for the operations and maintenance supervisors along with temporary shower/locker facilities and lunchroom facilities for all operations and maintenance personnel has been ordered and will be rented during this time.

There is limited land available for placement of these modular facilities on SBSA owned property and temporary office space for the administrative and engineering personnel cannot be accommodated onsite.

## SBSA Moving Its Front Gate to the Parking Area Near Shore Dog Park

To facilitate the various construction projects, including several projects in the Capital Improvement Program (CIP), SBSA needs to provide staff and contractors with additional space to park, to stage their construction activities and to store materials during construction.

Therefore, SBSA will be moving its front gate westward along Radio Road to the edge of the public parking area adjacent to the Shore Dog Park and putting up fencing along the side of Radio Road from this new gate location to our existing gate location.

This will restrict vehicle access beyond the parking area but we will provide a walking path along the Lagoon so that the many people who enjoy their bird-watching and exercise activities can continue to do so. None of the access to public facilities will be impacted; people will still be able to use the Shore Dog Park, get to the edge of the lagoon, and park in the municipal parking lot adjacent to the dog park.

We anticipate this work to begin soon. Please feel free to call 650-591-7121 if you would like additional information or have any questions.



Shore Dog Park access will NOT be impacted

## TOILET is Not a Trash Can

NO...

- § Antibacterial wipes; they harm the aquatic environment and clog sewer lines, pumps and other facilities. Put antibacterial wipes in the trash!
- § "Flushable" diapers; they get stuck on roots that have infiltrated sewer lines. Put disposable diapers in the trash!
- § Plastics or cellophane. Put them in the trash!
- § Toxic chemicals, pesticides, or paints. Take them to a household hazardous waste facility.
- § Pharmaceuticals. Find an authorized disposal site.
- § Cigarettes or matches. Use an ashtray.



§ ***Only food scraps and human waste belong in the sewer.***

## SBSA Approves Resolutions to Seek Revolving, Stimulus Funds

With completion of the development and identification of the SBSA Capital Improvement Projects (CIP) and approval of the program as a whole, work on design and construction of some projects has begun. The SBSA Commission determined it is best to fund the program in stages. The first borrowing occurred in December 2008 with a bond sale in the amount of \$10 million and a second bond issuance in the amount of \$56 million occurred in June 2009.

Current economic conditions at both the state and federal level have created a situation where “grant” funds are not a viable solution and borrowing will be necessary to fund the projects into the foreseeable future. The potential to borrow money or possibly gain access to “grant” funding from other state or federal programs will be utilized when possible to lessen the overall cost of money to the extent possible.

The State of California through the State Water Resources Control Board has a program commonly referred to as the State Revolving Fund (SRF) which provides reduced interest rate loans to wastewater projects throughout the state.

The federal government has recently authorized what is commonly called “Economic Stimulus Funds” and a portion of those funds have been earmarked for local wastewater projects. There are many qualifiers that must be met to receive any of the funds; however, SBSA feels it is a responsible action to apply for the funds for projects that meet the criteria.

SBSA has retained services of consultants to assist in the application process and many SBSA projects are already on the state’s SRF Priority List. Being on the Priority List does not guarantee the receipt of funds from the SRF, but only means your project will be considered against the many other criteria of the program.

The four projects for which applications are being submitted, the type of loan, and the requested loan amounts are:

1. **Administration and Plant Control Building** – construction loan - \$19 million
2. **WWTP Improvements** – construction loan - \$25 million
3. **Bair Island Force Main** – planning & construction loan - \$40 million
4. **Conveyance System** – planning & design loan - \$20 million

SBSA’s 10-year CIP has estimated expenditures over that timeframe of approximately \$340 Million in 2007 dollars.

**A portion of federal “Economic Stimulus Funds” are earmarked for local wastewater projects. SBSA feels it is a responsible action to apply for these funds for projects that meet the criteria**

## Commission OKs West Bay Pump Station Improvements, More CIP Projects

One of the newest CIP projects authorized by the Commission in August is the West Bay Pump Station Repair and Replacement project, necessary now due to concrete deterioration in a structural beam and flooring.

It was recently brought to the attention of engineering staff that a concrete beam serving as support for the first floor of the pump station has concrete spalling and exposed rebar. Upon further investigation, it was also noted that the first floor concrete slab was deteriorating due to previous spills from hypochlorite tanks. The tanks were subsequently repaired and adequate containment installed. However, the damage to the concrete floor and beam was not repaired.

The CIP includes a \$5.4 million project to rehabilitate this pump station with new pumps, motors,

electrical controls, and structural repairs. It was anticipated that the project would be initiated in spring 2010, at the same time as the other pump station projects; however, immediate initiation of this project is needed to allow the repairs of the deteriorating concrete to be done.

This is the only work anticipated to be done at this time. Consequences of not repairing the concrete immediately are related to both personnel safety and the integrity of the pump station structure due to the deteriorated concrete and exposed rebar.

In July, the Commission approved three additional projects for initiation. Two of the projects are automation-related and serve to provide a vehicle in which a comprehensive infrastructure of fiber optic cabling can be achieved throughout the treatment plant. In order to ensure reliable transmission of signals from individual process equipment to the central SCADA computers, a fiber optic cabling system backbone is being installed throughout the treatment plant.

The CIP did not include a specific fiber optic network project; therefore several projects that have been designated for automation within the CIP are being tapped for funds to install the fiber optic network since the network is in support of those projects.

The third project is for installation of an access hatch into the SBSA's effluent pipe. The effluent pipe is a critical facility for SBSA, being the only manner in which treated effluent is discharged to San Francisco Bay. The effluent has experienced leaks and repairs in the past and accessing the pipe is nearly impossible without extensive and expensive construction means.

This project will install a hatch that will enable the interior of the effluent pipe to be inspected more easily than is currently available. This project was originally intended to be initiated in fiscal year ending 2013, but recently there has been a small leak detected that has been traced to the effluent pipe which brings this project to the forefront. The access hatch will not be available for the pipe repair needed but it will enable the length of the pipe to be inspected on a frequent basis so that future leaks can possibly be avoided.

The three projects will cost \$4.2 million.

## Employee Corner

- **V. Gary Storms** has retired after 27 years with SBSA, including 19 as maintenance manager and his last year as Capital Improvements Projects (CIP) coordinator.
- **David Rosas** has joined SBSA as a utility worker.