

3.6 SAN FRANCISCO WATERSHED MANAGEMENT AREA

At the center of our Region, both geographically and symbolically, is the City and County of San Francisco (the City), which share the same boundary. Located at the tip of a narrow 46.7 sq mi. peninsula, San Francisco County is bounded by the Pacific Ocean to the west and by San Francisco Bay to the north and east. With a population of approximately 776,700 (2000 census), San Francisco is the most densely developed of the Region's nine counties. Northeast San Francisco is the most developed, with commercial downtown high-rises and apartment buildings. The southeastern part of the City is largely industrial and residential, with limited open space. The eastern shoreline is largely developed and devoted to maritime and industrial uses, some of which are obsolete. Accordingly, there are numerous redevelopment projects along the shoreline. The west side of the City is predominately residential, but also features large open spaces including Golden Gate Park, Lincoln Park, the Golden Gate National Recreation Area (which encompasses the Presidio, Ocean Beach, and Fort Funston), Lake Merced, and several golf courses surrounding the lake. The County also includes Treasure Island and Yerba Buena Island in San Francisco Bay, which belong to the U.S. Navy (Treasure Island is in the process of being transferred to the City as part of the base closure program), and Alcatraz Island, formerly the site of the notorious federal prison and now part of the State Park system. The City also has several other base closure sites (Hunter's Point, the Presidio) where land is being turned over for redevelopment, with attendant issues of toxic cleanups, groundwater remediation, and redevelopment.

San Francisco is unique in the region in several significant ways: 1) although the City has several large groundwater aquifers, it relies completely on imported surface water from Hetch Hetchy reservoir in the Sierra Nevadas, 2) most of San Francisco has a combined sanitary sewerage and storm water collection system and outfalls (CSOs), 3) the County is almost completely built out and has a very high proportion of impervious surfaces and therefore lack of groundwater recharge areas, and 4) there are virtually no stream systems left in the County, with the exception of some bayside tidal sloughs (Mission Bay, Islais Creek, Yosemite Creek) and a few small lakes and streams within the Presidio and other parks.

Elevated levels of nitrates are the most pervasive groundwater quality problem in San Francisco, with fertilizers and leaking sewers as potential sources. Other water quality issues include toxic cleanups at former military bases, potential water reclamation and groundwater reuse, impacts associated with redevelopment projects on the base sites and along the southeast shoreline, stormwater impacts from non-CSO areas of the City, and direct discharges into San Francisco Bay from shoreline areas. Staff has increased industrial inspections along the shoreline piers and will also be working with the City on Phase II permitting for these areas and other non-CSO parts of the City. Recently, San Francisco County has completed both groundwater and reclaimed water master plans that reflect the goal of diversifying water supplies. There has also been increasing focus on Lake Merced, an important wildlife habitat and recreational area in the southwest corner of the City, since water diversions to nearby golf courses and other uses have had severe impacts on the lake. San Francisco and San Mateo Counties have been working on solutions to the problem, including the possibility of diverting stormwater from the

combined sewer facilities in that area or using reclaimed wastewater for irrigation rather than taking water from the lake. Regional Board staff will be actively involved in reviewing any of these proposals for potential impacts on beneficial uses.

Another major issue in the City and County is the proposed large scale expansion of the San Francisco airport, which would require extensive bay fill. Although the airport is within the County of San Mateo, the City of San Francisco owns and operates the airport facilities and is of course involved in all decision-making. Staff will be part of any pre-project review and permitting activities relating to the airport.

Groundwater Resources

The City is considering further development of its groundwater resources. Current groundwater usage in the City is primarily for irrigation of parks and golf courses. San Mateo County withdraws groundwater for potable uses, resulting in declining water levels of Lake Merced. Seven groundwater basins (Westside, Lobos, Downtown, Marina, Islais Valley, South and Visitation Valley basins) occur beneath the City, delineated and separated on the basis of bedrock ridges and topographic divides. The Lobos, Marina, Downtown and South Basins are contained wholly within the City limits. The Islais Valley Basin extends beneath Daly City, Visitation Valley extends beneath the City of Brisbane, and the Westside Basin extends south of the City across several political boundaries (the Cities of Daly City, Colma, South San Francisco, San Bruno, and Millbrae) past the San Francisco International Airport. Westside Basin is the most promising basin in terms of groundwater development. It is the largest basin in San Francisco in areal and vertical extent, and composed primarily of course-grained materials. Groundwater in the southern portion of the Westside Basin and Lobos Basins is already used for potable purposes and is routinely sampled and analyzed for compliance with drinking water standards; therefore, the groundwater in these basins is considered potable.

Groundwater in the northern portion of the Westside Basin is also considered potable based on limited historic data and preliminary sampling results obtained in 1993; however, the data indicates that occasional concentration of nitrates, chlorides, iron, total dissolved solids, and fecal coliform have been detected above drinking water standards. Downtown Basin groundwater is being considered for nonpotable uses only (i.e., toilet flushing, irrigation, and climate control) because of the historic industrial development and the density of identified hazardous waste sites. Groundwater within the remaining basins (Marina, Islais Valley, South and Visitation Valley Basins) have not yet been fully assessed. The City's Water Department will need to address several technical and institutional issues (i.e., saltwater intrusion, subsidence, leakage from leaking tanks and sewer utilities, etc.), before utilizing groundwater for potable uses.

San Francisco Groundwater Beneficial Use Designation Project

In 1996, the Regional Board's staff Groundwater Committee completed a report titled "San Francisco and Northern San Mateo County Pilot Beneficial Use Designation

Project, Draft Staff Report.” This effort included a comprehensive evaluation of hydrogeology, future groundwater uses, and alternatives for revised beneficial use designations. The results are summarized below and incorporated into the Basin Plan Amendments available at:

http://www.swrcb.ca.gov/%7Erwqcb2/basin_plan_ammend.htm.

- The Basin Plan should be amended to include more recent information regarding the boundaries and beneficial uses of groundwater basins on the San Francisco Peninsula.
- The MUN beneficial uses should be de-designated for the Downtown Groundwater Basin and Treasure Island.

A prioritization map for groundwater management is shown in Figure III-6.

Significant Watershed Issues

- Military base conversion at Hunter’s Point, Treasure Island, and the Presidio, and associated water quality concerns related to storm water, groundwater contamination, and redevelopment
- Stormwater runoff contamination leading to Phase II permitting for non-CSO areas of San Francisco, including federal and state facilities
- Water quality impacts of fish processing and other facilities along the waterfront of the Port of San Francisco
- Beach closures due to coliform contamination at Baker, China, Ocean and Ft. Funston beaches; beaches proposed for 303(d) listing as impaired waterbodies
- Contaminated sediments in Islais, Mission, and Yosemite Creeks
- Wetland restoration and associated toxic hotspots
- Caltrans construction of new Bay Bridge and associated stormwater runoff pollutants, wetland impacts, and impacts to Yerba Buena Island
- Ground water contamination and associated reclamation and potential drinking water concerns
- Re-development projects at Mission Bay, Treasure Island, Ferry Terminal, Port of San Francisco, and the Presidio
- Protection of Beneficial Uses and water reclamation at Lake Merced
- Increasing contaminant levels of PAHs in dredge sediments from yearly dredging at Piers 33 and 35 by the Port of San Francisco
- Exotic species in nearshore waters of San Francisco and wetland restoration sites

Proposed Workplan for FY 2004/05 and 2005/06

- Review and comment on the Port of San Francisco stormwater program
- Stormwater inspections for fish processing facilities, boatyards, and other waterfront areas; request and review stormwater management plans
- Development of a municipal storm water permit under Phase II for non-combined sewer system areas, including Lake Merced and the Port of San Francisco
- Staff review of Presidio treatment plant and reclamation proposal

- Hunter's Point ecological risk assessment for offshore sediments; records of decision for groundwater remediation
- Treasure Island ground water extraction and TPH remediation; review proposals for redevelopment; review dredging proposals
- Implementation of proposed 303(d) listing for beach closures
- Review of dredging proposals by the Port of San Francisco
- Take action on approximately 20 anticipated 401/404 permits
- Reissue NPDES Permits as necessary (see Appendix A, Sections 1-3 for schedule)
- Complete pretreatment compliance inspections (see Appendix A, Section 4 for schedule)
- Conduct annual compliance inspections for NPDES major and minor permit holders (see Appendix A, Section 5 for schedule)
- Review of San Francisco airport expansion proposals and pre-project permitting activities

High Priority Unfunded Activities

- Study the effects of CSO on the sediments and water surrounding the outfalls
- Increased monitoring and assessment of potential contaminants, including the use of marine mammal testing
- Beach monitoring
- Development of a Wellhead Protection Program

High Priority Projects for Grant Funding

- Best Management Plan for Fish Handling Facilities
- Best Management Plan for Marinas and Piers
- Monitoring of beaches to address closures and remediation
- Education and outreach activities