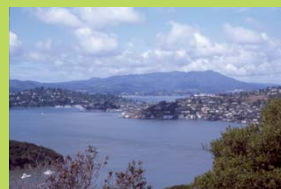




U.S. Environmental Protection Agency  
Pacific Southwest/Region 9



Serving Arizona, California, Hawaii, Nevada, the Pacific Islands and 148 Tribes

Water Division  
Watersheds Office

75 Hawthorne Street, San Francisco, CA 94105  
866-EPA-WEST • www.epa.gov/region9

## San Francisco Bay Water Quality Improvement Fund Progress Report, October 2012

*EPA manages a competitive grant program to support projects to protect and restore San Francisco Bay. This grant program, known as the San Francisco Bay Water Quality Improvement Fund (SFBWQIF) began in 2008. The SFBWQIF has invested over \$27 million in 48 projects through 20 grant awards. These projects include 69 partners who are contributing an additional \$103.6 million to restore wetlands and watersheds, and reduce polluted runoff.*

*This update provides some project highlights, and a full list of the grants funded to date. Additional information and future grant announcements can be found at: <http://www.epa.gov/sfbay-delta/sfbaywqifund/index.html>.*

### Restoring Wetlands

San Francisco Bay is now home to major wetland restoration. Since 1998, over 20,000 acres of wetlands are on their way to being restored. Resource agencies are using the Baylands Ecosystem Habitat Goals Report to guide recovery of an additional 95,000 – 105,000 acres of tidal wetlands. The SFBWQIF has invested \$100 million in 19 projects to restore over 4,000 acres of wetlands around the Bay. Highlights of these projects include:

#### Restoring Living Shorelines: Eelgrass and Oyster Bed Habitat Restoration, California State Coastal Conservancy

EPA awarded a \$300,000 grant to restore native eelgrass and oyster habitat in San Francisco Bay and will:

- restore habitat for multiple species including aquatic invertebrates, salmon, herring, diving ducks, and shorebirds;
- generate new data on the ability of the oyster shell reefs to protect wetland and shoreline areas from erosion caused by sea level rise; and
- improve water quality by reducing suspended sediments.



July 2012: Bagged oyster shells.



July 2012: Bagged oyster shells for submersion.

#### South Bay Salt Pond Tidal Marsh Restoration at Pond A17, California State Coastal Conservancy

EPA awarded a \$725,000 grant to restore 130 acres of tidal marsh at Pond A17, a former salt pond in South San Francisco Bay. This project is part of the largest wetlands restoration on the West Coast, with cumulative restoration of over 15,000 acres. The project will:

- enhance habitat for endangered and migratory birds;
- improve water quality in the Bay by increased filtering of pollutants;
- help the Bay shorelines keep pace with sea level rise.



Spring 2012: Pond A17 site preparation.

The tidal wetlands habitat is being restored through levee lowering, levee breaching, and the construction of internal ditch blocks to redirect flows to remnant marsh channels. The project is on schedule for a levee breach in late 2012.

## Cullinan Ranch Tidal Marsh Restoration, Ducks Unlimited

The SFBWQIF awarded the final \$1.4 million needed (of \$14.4 million) to Ducks Unlimited to allow this 1,549-acre restoration project. Ducks Unlimited started construction on the former ranch in 2011 and expects to breach the perimeter levee to restore hydrology in early 2014. Restoration will improve ecologic health, habitat connectivity and water quality in the lower Napa River and San Pablo Bay.



February 2012: Cullinan Ranch setback levee along Highway 37.

## Restoring Watersheds

The SFBWQIF has invested over \$22 million to help implement 23 pollutant reduction action plans (known as total maximum daily loads, TMDLs). These address water quality impaired by some of the most challenging pollutants in the Bay, including sediment, trash, mercury, polychlorinated biphenyls (PCBs), and pathogens. The following highlights a few of these projects.

## Napa River Sediment TMDL Implementation, Napa County

\$1.5 million addresses the four categories of human-caused sediment sources identified by the Napa River sediment TMDL: channel incision/bank erosion, roads, vineyards, and rangelands. The goal of the TMDL is to help restore steelhead trout and Chinook salmon populations that have suffered from high concentrations of fine sediment in their spawning beds.

Napa County's aim is to restore the Napa River reach-by-reach. In 2011, the County worked with vineyard owners to repair ~1,800 feet of eroding banks along a one-mile section of the Rutherford Reach, preventing ~3,000 tons/year, or 16%, of the total annual fine sediment load reduction called for in the TMDL. Napa County, the Resource Conservation District, UC Extension, and California Land Stewardship Institute are also working with vineyard owners and ranchers to control sediment and pathogen runoff.



Top photo – January 2012: Napa River Rutherford Reach post construction; Bottom Photo – March 2012: Napa River Rutherford Reach.

## Implementing the San Francisco Bay PCB TMDL, Bay Area Stormwater Management Agencies Association (BASMAA)



May 2012: Updated Fish Advisory.

EPA awarded a \$5 million grant to work with Bay Area municipalities to identify, prioritize, and treat legacy sources of PCBs and mercury through localized site clean-ups and outreach to fishing communities. Fish and shellfish contaminated with PCBs and mercury pose health risks to humans and wildlife. Since these toxic pollutants are long-lived in the environment, it is important to reduce consumption of contaminated fish while continuing clean-up activities. Supported by a recently updated fish consumption advisory issued by the Office of Environmental Health Hazard Assessment, the California Department of Public Health, in partnership with community-based organizations, BASMAA, Bay Area county health officials, and the San Francisco Bay Regional Water Quality Control Board conducted risk reduction outreach to several Bay Area communities, developed a fish advisory PSA, and posted 75 fish advisory signs at fishing locations around the Bay.

## **Coyote Creek Trash Reduction Project, City of San Jose**

EPA awarded a \$680,000 grant to address illegal dumping in the trash-impaired Coyote Creek. Trash has significantly damaged the creek's ability to provide a healthy habitat for native anadromous fish. The City of San Jose's four-year pilot program has brought together an interdisciplinary partnership to improve creek health using a three-pronged approach: engage neighbors as creek stewards, partner with the Downtown Streets Team to train homeless people to conduct creek cleanups, and deter illegal dumping and litter. To date, five tons of trash along Coyote Creek has been removed, 10 community outreach event have been held, and a 25-member Downtown Streets Team cleanup crew is routinely doing creek clean ups as well as outreach to other homeless individuals.

## **Greening Urban Development: Reducing Polluted Runoff**

There is growing recognition that green development practices, such as low impact development (LID), using natural hydrologic processes to treat polluted runoff, should become common practice. To encourage widespread adoption of LID stormwater treatments, the SFBWQIF awarded \$2.95 million to local governments to implement six projects throughout the Bay Area. Projects range from small one-block pilots to large-scale multi-block efforts. The projects also assist communities to develop policies and technical expertise necessary to continue to support and encourage green development practices.

### **Tree Well Filters, City of Fremont**

EPA awarded a \$203,000 grant to install tree well systems to treat stormwater pollutants, including trash, from over 14,000 square feet in an industrial area. The San Fran-

cisco Estuary Institute is conducting pollutant reduction monitoring for the project. The city will develop a tree well filter installation guide to direct future installation of the filters to treat stormwater.

## **Newcomb Avenue and Cesar Chavez Street, City of San Francisco**

EPA awarded \$1.69 million for two projects to improve stormwater management. Newcomb Avenue, now recognized as the greenest street in San Francisco, was completed in December 2011. The project replaced a nearly 100% impervious streetscape with LID elements, such as permeable pavement, sidewalk landscaping, trees, and stormwater planters. San Francisco will also reduce storm water flows to the combined sewer system by 500,000 gallons per year using LID to retrofit a one-mile segment of Cesar Chavez Street. Construction is expected to begin in early 2013 and take approximately nine months to complete. Project results will inform future urban LID redevelopment and move San Francisco closer to its goal of reducing combined sewer overflows into the Bay.



*November 2011: Newcomb Avenue post construction.*

## **San Pablo Avenue Green Stormwater Spine, San Francisco Estuary Partnership (SFEP)**

EPA awarded a \$307,000 grant to design highly visible green infrastructure projects to reduce stormwater pollutants along San Pablo Avenue, a major thoroughfare in the East Bay. The San Francisco Estuary Partnership is working with CalTrans and the seven cities along San Pablo Avenue: San Pablo, Richmond, El Cerrito, Albany, Berkeley, Emeryville and Oakland. \$1.8 million leveraged from CalTrans will pay for construction. Each city will treat approximately one acre of impervious surface with a site-specific LID technology such as a bio-swale, rain garden, and/or permeable pavement. This partnership is a unique opportunity to institutionalize LID and to foster more extensive use of these techniques. Site designs will be used as a toolkit for future projects. Construction is expected to be complete in October 2014.



*Top Photo – November 2011: During construction; Bottom Photo – January 2012: Tree well filter after installation.*

U.S. EPA SFBWQIF Grants (Recipient) 2008 - 2012	Grant	Match/ Leveraged	Fiscal Year
1 Resilient Watersheds for a Changing Climate – 16 projects (San Francisco Estuary Partnership)	\$4,922,000	\$6,456,730	08
2 Building Partnerships for Resilient Watersheds – 10 projects (San Francisco Estuary Partnership)	\$3,613,704	\$1,204,568	09
3 Cesar Chavez Street Headwaters Pilot LID Project (City and County of San Francisco)	\$1,200,000	\$1,040,000	09
4 Clean Watersheds for a Clean Bay (Bay Area Stormwater Management Agencies Association)	\$5,000,000	\$1,940,000	09
5 Pond A17 Tidal Marsh Restoration (California State Coastal Conservancy)	\$725,000	\$6,475,000	10
6 Coyote Creek Trash Reduction Project (City of San Jose)	\$680,000	\$382,417	10
7 Napa Sediment TMDL Implementation – 5 projects (Napa County)	\$1,500,000	\$1,645,000	11
8 San Pablo Avenue Stormwater Spine (San Francisco Estuary Partnership)	\$307,646	\$2,197,964	11
9 Dutch Slough, Emerson Parcel Tidal Marsh Restoration (California State Coastal Conservancy)	\$1,400,000	\$8,725,350	11
10 Cullinan Ranch Tidal Marsh Restoration (Ducks Unlimited)	\$1,400,000	\$12,875,327	11
11 Reduction in Household Toxic Pesticide Use (San Francisco Estuary Partnership)	\$250,000	\$83,334	11
12 San Francisquito Creek Stabilization at Bonde Weir (San Mateo Resource Conservation District)	\$75,000	\$152,331	11
13 San Pablo Bay Tidal Marsh Enhancement & Water Quality Improvement (Audubon California)	\$235,884	\$1,139,128	11
14 Reduction in Packaging at Fast Food Establishments (Clean Water Fund)	\$257,293	\$1,635,360	11
15 Alameda Creek Restoration (Alameda County Resource Conservation District)	\$181,823	\$395,162	11
16 Restore Wetlands at Creek Mouths (San Francisco Estuary Partnership)	\$1,552,059	\$33,920,059	12
17 Restore Quartermaster Reach – Presidio (Golden Gate National Parks Conservancy)	\$1,000,000	\$17,000,000	12
18 Napa River Restoration: Rutherford Reach Completion and Oakville Reach Phase 1 (Napa County)	\$1,500,000	\$1,500,000	12
19 Sears Point Tidal Marsh Restoration (Sonoma Land Trust)	\$941,941	\$3,741,941	12
20 South Bay Salt Pond Mercury Studies (California State Coastal Conservancy)	\$500,000	\$1,238,000	12
TOTAL	\$27,242,350	\$103,747,671	