

watershed

Keep It Clean! with Save The Bay

Are you polluting the Bay? Today, car engine leaks and road runoff contribute more oil to coastal waters than oil tanker spills. An average of three pieces of trash per foot can be found in all creeks and streams that flow to the Bay. With pharmaceutical use on the rise, a recent National Institutes of Health survey shows that more than a third of residents improperly dispose of unwanted medicine.

Dangerous pollution from our homes, cars and neighborhoods is one of the greatest threats to San Francisco Bay. Motor oil, heavy metals, trash and bacteria flow unfiltered through storm drains straight to the Bay. Toxics including mercury and pharmaceutical chemicals can enter the Bay when not removed completely from waste water.

As the Bay Area population grows, our day-to-day activities generate massive

amounts of pollution that degrade Bay water quality and threaten fish, wildlife and people.

“We all need to work together to make a positive, long-term impact on the health of San Francisco Bay,” says Save The Bay Executive Director David Lewis. “The Bay is cleaner than it was 40 years ago because residents fought for tougher water quality standards, but pollution still threatens the Bay. Now it’s our turn to make the Bay cleaner.”

Save The Bay’s pollution prevention campaign – **Keep It Clean!** – helps residents easily understand what they can do to reduce Bay pollution. The first step is for you to figure out how your daily activities are affecting the Bay. Take the **Keep It Clean!** survey at **ikeepitclean.org** to see how much pollution is coming from you.

▼ *Washing your car on pavement sends heavy metals, grease and other pollutants into the Bay.*



Visit Our Web site
saveSFbay.org

- ▶ Join the Bay Savers e-mail action network
- ▶ Learn about the Bay in The Bay Classroom
- ▶ Sign up for exciting Discover The Bay outings

SAVE THE BAY



How do you pollute the Bay?

Take the Keep It Clean! survey and find out whether you are a Bay Saver or a Bay Polluter.

ikeepitclean.org



Bay Connections: Education on the water and in the classroom

Over the last decade, Save The Bay's Watershed Education Programs have introduced more than 30,000 students to a whole new world in their backyard. Our Watershed Education Programs provide students with opportunities to learn about the Bay on the water, through hands-on restoration projects and in-classroom activities.

We take students paddling close to their own communities where they explore the sloughs, test water quality and observe wildlife. Participating in a Canoes In Sloughs trip can be a life-changing experience for many of them as they learn about the health of their Bay and the role they can play in improving it, right near their own home. Our field educators, who lead the Bay outings, see first-hand the impacts that outdoor experiences can have on their students.

"Many students are scared of the Bay, sometimes to the point of tears as they get in a canoe. By the time we return to unload they are usually laughing and paddling like pros, as they spot and identify willets and mussels," says Save The Bay Field Educator Jesse Feldman.

We encourage teachers to enhance the on-the-water experience by also bringing

their students to a hands-on restoration program to learn more about wetland ecology. Restoring wetlands is a key way for students to give back to their community by working to keep the Bay healthy and vibrant.

The Bay experience does not have to end when students return to the classroom. Teachers can download Save The Bay's Watershed Curriculum for free at saveSFbay.org/bayclassroom and access age-appropriate, Bay-oriented lessons that they can integrate into science, language arts and history lessons.

As students connect with the Bay on the water and in the classroom, they learn to care about it as part of their home. Sometimes students take their families to visit the site where they planted native wetland plants or paddled a canoe. Students become teachers, educating their families about ways to protect the Bay from pollution and how they can make the Bay healthier.

Through direct Bay experiences, we hope to foster the next generation of Bay Savers and inspire a new generation of community leaders.




▲ Jessica Parsons,
Education Programs
Manager

watershed

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Save the Date — September 30

blue

A benefit event celebrating San Francisco Bay
Saturday, September 30, 2006
Pier One, Port of San Francisco
Honoring Save The Bay co-founder, Sylvia McLaughlin



For sponsorship opportunities or to make an in-kind auction gift, please contact
Eliza Dexter at (510) 452-9261, ext. 106 or edexter@saveSFbay.org.

Steelhead trout

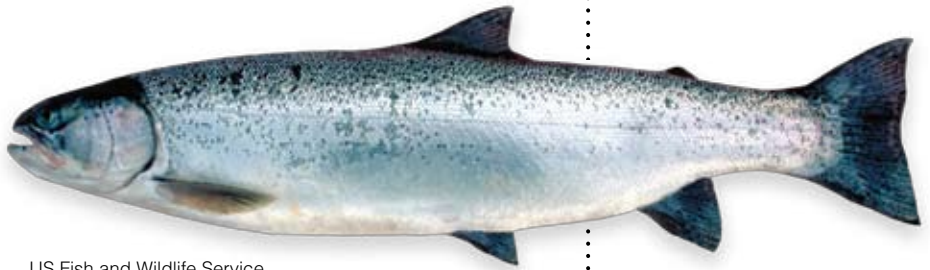
The rugged and elusive steelhead trout has graced California's waterways for thousands of years. Steelhead trout, nicknamed the silvery ghosts, are large, anadromous fish that migrate to and from salt water like their salmonid cousins, char and salmon.

From January through March, thousands of steelhead journey from the ocean to their native freshwater streams and rivers to spawn. In the Bay Area, you might see steelhead trout in local tributaries like the Guadalupe River, Alameda Creek and San Francisquito Creek. Some scientists think steelhead are able to "smell" their way back to the stream where they were born by sensing the mineral content in the water.

After the long journey and courtship, the female digs a nest called a redd in the loose gravel of a stream bed and deposits thousands of pea-sized, pink-orange eggs. When the newborn fish, or fry, emerge from the redd, they begin to feed on aquatic insects, worms and fish eggs in the cool, fresh water.

As juveniles, they migrate downstream toward the Bay and adapt to salt water through a process called smoltification. The smolts continue to the Pacific Ocean where they mature into adults, only to migrate back to reproduce in the tributary where they were born. Unlike their salmon cousins, steelhead do not necessarily die after spawning and sometimes migrate more than once.

Steelhead trout use camouflage to blend into their surroundings to avoid predators. Camouflage is an important survival technique, because fry are prey for birds and other fish including adult steelheads. Fry have dark spots on their backs that help them to blend into a rocky stream bed.



US Fish and Wildlife Service

In the open ocean, steelhead appear silvery-white from below and dark metallic blue from above; this counter-shading helps the young fish hide from larger fish, harbor seals and sea lions. Unlike female steelhead, male fish have a vivid pink to red streak along their sides and a more hooked snout.

In 1997, Coastal California Steelhead were listed as a threatened species under the Federal Endangered Species Act. As their freshwater habitat disappears, the steelhead population in California has fallen from over 500,000 in the 1970's to roughly 250,000 today. An inadequate amount of fresh water, blocked access to spawning and rearing sites and human activities that send sediment and debris into rivers are three factors that threaten remaining steelhead populations.

To learn about more of San Francisco Bay's amazing creatures, visit:

saveSFbay.org/bayclassroom

—Sara Steele
Intern

Steelhead trout

Oncorhynchus mykiss irideus

SIZE: 20-40 inches long
10-40 lbs

RANGE: From the Bering Sea and Alaska to Southern California border, introduced worldwide

FOOD: Aquatic insects, larvae, snails, opossum shrimp and amphipods (shrimp-like crustaceans), smaller fish

Keep It Clean! Tips

Keeping the Bay clean from pollution is easy to do:

- ▶ Exchange your mercury thermometer for a non-toxic one
- ▶ Safely dispose of medicine at a household hazardous waste facility
- ▶ Recycle your motor oil
- ▶ Wash your car at a car wash to ensure polluted wash water is treated
- ▶ Pick up pet waste
- ▶ Don't litter

Visit ikeepitclean.org to find more ways to **Keep It Clean!**



Restoring Wetlands Step by Step: The Bair Island Restoration Project

Over the past 150 years, about 90 percent of San Francisco Bay’s wetlands have been destroyed, eliminating vital habitat for fish and wildlife and degrading Bay water quality. Scientists recommend that 100,000 acres be restored to preserve and improve Bay health. Today, a myriad of organizations and agencies work collaboratively to restore wetland habitat around San Francisco Bay.

Save The Bay is currently working with the U.S. Fish and Wildlife Service (FWS), California Department of Fish and Game and other partners to restore habitat at Bair Island in Redwood City. The Bair Island Restoration Project illustrates the process required to restore San Francisco Bay wetlands.

Land Acquisition

Redwood City residents have fought many times to protect Bair Island’s 2,600 acres from development. In 1997, the federal and state governments purchased Bair Island to be included in the Don Edwards San Francisco Bay National Wildlife Refuge with the support of elected officials, the Peninsula Open Space Trust and other stakeholders.

Planning, Environmental Review and Permitting

Nine years after the acquisition, the planning process for the Bair Island Restoration Project is near completion. Wetland consultants and scientists developed a plan to restore Bair Island that benefits both wildlife and the

surrounding community. Save The Bay and other stakeholders have weighed in on the plan to ensure it protects wildlife, provides responsible public access and addresses flood control. By the end of 2006, the environmental reports and all required permits should be secured, providing the go-ahead for work to begin.

Funding

Restoring Bair Island may cost up to \$21 million. Save The Bay, Congresswoman Anna Eshoo, the Port of Redwood City, Bay Planning Coalition, and the Army Corps of Engineers are working with the FWS this year to secure \$9 million.



▲ *Volunteers remove invasive iceplant from middle Bair Island.*

Implementation

Once funds are secured, the Bair Island

Restoration Project can begin. The FWS will breach levees, install water flow structures, place dredge material to raise subsided areas and construct public access enhancements. Save The Bay and our volunteers will assist in the restoration by removing non-native plants like iceplant and by planting native wetland plants to enhance habitat.

Operations and Maintenance

Once the plan is implemented, the FWS will be responsible for operations and maintenance of Bair Island, which will require an ongoing source of funding.

Learn More

► To learn more about the Bair Island Restoration Project, visit: saveSFbay.org/bairisland

Are We Making a Difference?

Over the last decade, Save The Bay has provided more than 50,000 Bay Area residents and students with meaningful opportunities to learn about the Bay through our Watershed Education and Community-based Restoration Programs.

We expect that people will be more likely to help protect and restore the Bay after participating in Save The Bay programs, but how do we know if our programs are making a difference?

With eight years of program experience, Save The Bay is eager to measure the positive impact our programs have on residents' attitudes about the Bay. Save The Bay contracted with a professional consultant to monitor and evaluate components of our programs and conduct follow-up focus groups with teachers and students to get an in-depth qualitative analysis of their experiences. We are also applying this evaluation method



▲ *eBay employees celebrate a day of restoration work at the Palo Alto Baylands Nature Preserve.*

to corporate employees who volunteer for our restoration projects.

This approach is based on a joint effort that began in 2003 with a coalition of more than 20 other environmental education organizations around the Bay Area and attempts to answer the question, "Are our programs actually creating behavior change that benefits the environment?" We will use the evaluation findings to modify our program content and invest resources to maximize impact on program participants.

Look for our findings in Fall 2006.



Jon Biale

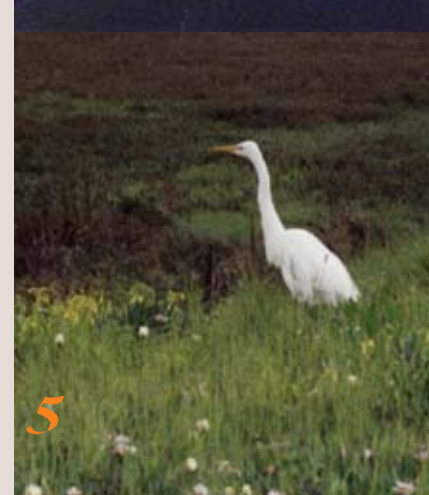
18,000 Plants and Counting

Save The Bay's restoration team and dedicated volunteers are working diligently to add 18,000 native plants in local wetland habitats by the end of the rainy season.

We aim to plant 9,000 plants in wetlands at the Martin Luther King, Jr. Shoreline Regional Park in Oakland, add 8,000 plants along the banks of San Francisquito Creek in East Palo Alto, and place the remaining 1,000 plants at Bair Island, Tolay Creek and Santa Venetia Marsh.

Thousands of students and adults who participate in Save The Bay's restoration projects at our ten sites around the region will complete this work. By planting marsh gumplant, sea lavender, saltgrass and other natives, Bay Area residents are enhancing vital wetland habitat that Bay fish and wildlife depend on to survive.

To get involved with wetland habitat restoration, visit saveSFbay.org/bayevents.



Many Hands Restore Tidal Wetlands at Eden Landing

Save The Bay and our thousands of volunteers partner with land-owning public agencies to restore vital wetland habitat around the Bay. One of our newest ventures is joining the California Department of Fish and Game (CDFG), East Bay Regional Park District and the San Francisco Bay Trail to restore 600 acres of tidal salt marsh habitat at the Eden Landing Ecological Reserve in Hayward.



▲ A Save The Bay volunteer picks up trash on Coastal Cleanup Day 2005.

The site is a former salt pond located south of Highway 92 near the San Mateo Bridge and immediately adjacent to thousands of acres of salt ponds that will be restored as part of the South Bay Salt Pond Restoration Project. CDFG, the land-owning agency, will breach a levee, flooding the former salt pond and restoring the Bay's tidal flows. This is first step toward restoring salt marsh habitat for endangered fish, shorebirds and other wildlife.

Thanks in part to funding from the National Oceanic and Atmospheric Administration (NOAA) Restoration Center, Save The Bay will involve student and community volunteers in hands-on restoration at the site and educate the public about the value of wetlands. Save The Bay is also contributing funds to



▲ This 600-acre former salt pond will be restored to tidal marsh habitat.

breach the levee and replace a culvert that will help circulate water and enhance fish habitat.

Eden Landing is usually off-limits to the public, so this is one of the first opportunities for volunteers to help restore former salt ponds in the South Bay. Volunteers will weed invasive plants to help prepare the site before the levee breach. Once tidal action is restored, volunteers will plant 5,000 native seedlings to restore habitat along a two-mile section of new Bay Trail.

On April 22, you can celebrate Earth Day by volunteering to restore wetland habitat at Eden Landing Ecological Reserve. This is a fun way to make the Bay healthier and to learn more about wetland ecology. For more information, contact Marilyn Latta at (510) 452-9261 x110 or mlatta@savesfbbay.org.

Experience the San Francisco Bay with your friends and family!

Save The Bay offers private recreational canoe trips and wetland restoration volunteer outings at many sites around the Bay for groups of 15 or more. These events are a fun way to explore the Bay and its wetlands, islands and sloughs. People have the time of their life while exploring their own backyard and the Bay's hidden gems. Trips are customized for each group and all equipment and instruction is provided by trained Save The Bay staff.

To set up a private event with us, contact Jocelyn Gretz, Community Programs Coordinator, at (510) 452-9261 x109 or jgretz@saveSFbbay.org.

Save The Bay Honors Commission's 40 Years of Bay Protection

In December, Save The Bay honored the Bay Conservation and Development Commission (BCDC) for 40 years of helping to protect San Francisco Bay with a reception at the Port of San Francisco. The event program featured BCDC's first chairman Mel Lane, first executive director Joe Bodovitz, Save The Bay co-founder Sylvia McLaughlin, and current and former BCDC commissioners.

As the first state coastal zone management agency in the world, BCDC is an international blueprint for shoreline preservation. "They copied our program for the Coastal Commission, they copied it for the federal Coastal Zone Management Agency, and there are now 35 states and territories in the United States that have state coastal management programs.



▲ Save The Bay co-founder Sylvia McLaughlin speaks to the assembled luminaries.

We regularly meet with folks from Vietnam, Korea, Turkey, Brazil and places all around the world who are modeling programs on BCDC and our experience," said current BCDC Executive Director Will Travis.

Since 1965, when Save The Bay led advocacy efforts to pass state legislation that created BCDC (McAteer-Petris Act), the commission has amassed a remarkable number of accomplishments. BCDC has authorized over \$15 billion in shoreline development, opened up more than 900 acres of new public access for trails, parks and recreational uses along more than 90 miles of Bay shoreline and permitted wetland restoration that has made the Bay thousands of acres larger. These

accomplishments have been achieved at a minimal cost to each Californian of about 10 cents per year. "It's so gratifying to know that instead of continued shrinking, the Bay's water surface has vastly increased as has the public's access to the Bay," said Save The Bay co-founder Sylvia McLaughlin.

Twenty-seven commissioners representing Bay Area counties, cities and key state and federal agencies serve on BCDC, encouraging broad public participation and open government. BCDC has a long list of distinguished former commissioners, including U.S. Department of Transportation Secretary Norman Mineta, U.S. Senator Dianne Feinstein, U.S. Representatives Anna Eshoo and Zoe Lofgren and State Senator Jackie Speier. More than 450 community leaders have served on BCDC

throughout its forty-year history.

"Without BCDC, San Francisco Bay would be vulnerable to unnecessary landfill and harmful development. BCDC is essential to the economic and environmental health of the Bay Area and preserving San Francisco Bay for future generations," noted Save The Bay Executive Director David Lewis.

Along with the keynote speakers, the event included a preview of the film *Saving The Bay*, now in production for public television by Ron Blatman.

The Port of San Francisco, Bay Planning Coalition, and San Francisco Planning and Urban Research Association (SPUR) generously sponsored the event.

BCDC Achievements

- ▶ Authorized more than \$15 billion in shoreline development
 - ▶ Opened more than 900 shoreline acres to public access for trails and parks
 - ▶ Permitted wetland restoration that has made the Bay thousands of acres larger
- These accomplishments have been achieved at a minimal cost to each Californian of about 10 cents per year.

calendar

For more outings or to register online, visit our Web site: saveSFbay.org/bayevents or call: (510) 452-9261 x109.

Inside

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Bay Connections

Sat., Apr. 22 | **Eden Landing Ecological Reserve Restoration Project** Clean up debris and remove non-native plants from this former salt pond site that is normally off-limits to the public.
Partner: California Department of Fish and Game

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Creature Feature: Steelhead Trout

4/5
Restoring Wetlands; Are We Making a Difference?

Sat., Apr. 30 | **Opening Day on the Bay** On the official opening day of the Northern California sailing season, come aboard the *Gas Light*, a 50-foot replica of a scow schooner for a parade along the San Francisco waterfront.

6
Eden Landing Restoration

Sat., May 6 & June 10 | **Marin Islands Restoration Stewardship Paddle** Paddle to the scenic Marin Islands and remove invasive French broom to improve habitat for nesting birds. Experience this unique island site that is usually off-limits to the public.
Partner: Marin Islands National Wildlife Refuge

7
BCDC Turns 40

Fri., May 12 | **Full Moon Paddle with Mom** Celebrate Mother's Day on this magical paddle along Gallinas Creek. Watch the moon rise over the Bay and shed light on the wetlands.

Sat., May 20 | **Palo Alto Restoration Project** Remove non-native plants from the banks of San Francisquito Creek to give newly planted native seedlings a chance to take root.
Partner: Palo Alto Baylands Nature Preserve

Sat., May 20 | **Oakland Restoration Project** Remove invasive iceplant and wild radish from the Martin Luther King, Jr. Shoreline to give newly planted gumplant seedlings a chance to take root.
Partner: East Bay Regional Park District

Sat., June 24 | **Summer Solstice Paddle** Celebrate the longest day of the year on a canoe paddle exploring Arrowhead Marsh and the Martin Luther King, Jr. Shoreline.

More Events

Find more exciting Discover The Bay adventures and habitat restoration opportunities on our Web site. Visit: saveSFbay.org/bayevents

SAVE THE BAY celebrates, protects and restores San Francisco Bay by waging successful advocacy campaigns and building the community's connection to the Bay through hands-on watershed education and restoration programs.



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