



THE CHANGING TIDE

Spring 2012

Get Ready for Spring Cleaning!

Contributing author: Virginia St Jean, San Francisco Department of Health

The products you purchase to clean and maintain your boat can have an adverse effect on aquatic life, water quality, and human health. When you purchase boat cleaning products, take time to read the label. A signal word, such as “danger/poison”, “warning”, or “caution” can give you a general indication of the toxicity of a product. If you want more information on a product’s contents, ask your retailer or contact the manufacturer for the Material Safety Data Sheet (MSDS). The MSDS will list any constituents considered to be hazardous substances by the federal government. Avoid products with ingredients known to cause cancer or reproductive harm as listed in California’s Proposition 65: See a complete, updated Proposition 65 list at

http://oehha.ca.gov/prop65/prop65_list/Newlist.html



For a more comprehensive list of alternative to toxic products visit www.sfdph.org/dph/files/EHSdocs/Green/MarineFinalReport.pdf and www.coastal.ca.gov/ccbn/lesstoxic.html

Other resources you may want to check include:

- EPA Design for the Environment <http://epa.gov/dfe/pubs/projects/formulat/formpart.htm>
- EcoLogo Program www.ecologo.org/en/certifiedgreenproducts/category.asp?category_id=26

References: Boater’s Guide To Eco-Friendly Purchasing. 2011. San Francisco Department of Public Health in partnership with the California Department of Toxic Substances Control, California Department of Boating and Waterways and California Coastal Commission’s Boating Clean and Green Program.

Safe alternatives are available

You can minimize environmental impacts by using some of the following alternatives to toxic products:

Cleaner: Degreaser

Use: Water, citrus or soy based degreasers, lemon juice and borax, or mild biodegradable phosphate free soap

Avoid the following ingredients:

- Chlorinated solvents
- Benzene
- Sodium hydroxide
- Phosphates
- Butoxyethanol
- PERC (perchloroethylene, tetrachloroethylene)
- NMP (n-methyl 2-pyrrolidone)
- PD (petroleum distillates, naphtha, mineral spirits, kerosene, Stoddard Solvent)
- MeCl (methylene chloride, dichloromethane)

Cleaner: Detergent / Soap

Use: Fresh water and a lot of elbow grease and biodegradable, phosphate-free, vegetable or citrus-based soap

Avoid the following ingredients:

- Phosphates
- Phosphoric acid
- Sodium hypochlorite (bleach)
- Chlorinated solvents
- PD
- APE (alkyl- or nonylphenol ethoxylate)
- Quaternary ammonia
- Lye

Cleaner: Head

Use: Brush with baking soda, active-oxygen-based sprays, or use ½ cup borax and 1 gal of water

Avoid the following ingredients:

- Hypochlorite
- Formaldehyde

Cleaner: Holding Tank

Use: Bio-active and enzyme treatments, nitrates, fragrance holding tank treatment

Avoid the following ingredients:

- Formaldehyde
- Ammonium chloride
- Isopropyl alcohol (isopropanol)
- 2-propanol

Cleaner: Bilge

Use: Practice preventive engine maintenance and always use oil absorbents. Properly dispose of used oil absorbents as hazardous waste. For locations call 800-CLEANUP. If you have to use a bilge cleaner, select a vegetable-based, biodegradable formula, and be sure to contain it and do not discharge it overboard.

Avoid the following ingredients:

- Soap
- Solvents
- Degreasers
- TCE (trichloroethylene)
- PERC
- MeCl

Anti-freeze

Use: Propylene glycol3 and recycled antifreeze

Avoid the following ingredients:

- Ethylene glycol

Remover: Mildew

Use: Scrub with paste of equal parts lemon juice (or vinegar) and salt (use full strength vinegar), then rinse, scrub mildew with borax and water using a nylon scouring pad.

Avoid the following ingredients:

- Phosphate
- Sodium hypochlorite





Photo by: Michelle Kearney

Destination Series:

Ventura Harbor

Ventura Harbor is located 65 miles northwest of Los Angeles. Since its opening in 1963, the harbor has grown to 152 acres of land, 122 acres of water, and 1,375 boat slips.

Contributing writer: G. Scott Miller, Harbormaster

This quaint harbor serves as the gateway to the Channel Islands National Park and Marine Sanctuary, and is home to the Channel Island National Park Service Visitors Center. In 1980, the United States Congress designated San Miguel, Santa Rosa, Santa Cruz, Anacapa, and Santa Barbara Islands, and the submerged lands and waters within one nautical mile of each island as Channel Islands National Park. In the same year, Congress declared a National Marine Sanctuary around each of these islands, including waters up to six nautical miles offshore. Due to the Channel Islands national and global significance, rich biodiversity, and fragile ecosystem, Ventura Harbor prides itself on its devotion to environmental consciousness.

Ventura Harbor offers a diverse boating experience pairing 900 recreational boats with a fleet of commercial fishing vessels. During your visit to the harbor, you will discover the charming Harbor Village, miles of uncrowded beaches, and a bustling beachfront promenade. Here, you will also find one of California's longest wooden piers, fine restaurants, shopping districts, whale watching opportunities, scuba excursions, and more.

Ventura Port District and the City of Ventura worked cooperatively to reroute the launch ramp wash down directly into the city's sewage and not directly into the harbor.

Home to three large private marinas, two marinas have received the designation of a California Clean Marina. The Ventura Port District is working diligently to meet the requirements of the program and hopes to designate the District's Commercial Marina in 2012, according to Dockmaster Dave Werneburg.



Photo by: G. Scott Miller

Boaters can drop off their used oil and filters easily at the open collection point. District Staff transfer it to the holding facility almost on a daily basis.



Photo by: G. Scott Miller

The Trash/Recycle receptacles encourage recycling by making it easy for the public to separate bottles and cans from solid, non-recyclable waste.

Ventura County provides 24-hour accessibility to five vessel sewage pumpout stations: Ventura Harbor Marine Fuel dock; Ventura Harbor Village marina (Dock I); Ventura Isle marina (Dock G); and Ventura West marina (Dock B). One portable toilet dump station is located at the public launch ramp, near the restroom. Used oil recycling stations are also accessible 24-hours/day: Dave's Fuel dock; Ventura Harbor Marine Fuel dock; and at the Dockmaster Office located behind Ventura Harbor Marine Fuel dock. Recycling is available throughout the harbor.

Let's Raise Some Hull – Ecofriendly Hull Paint Solutions

Contributing author: Stephanie Bauer, Port of San Diego

The Port of San Diego (Port) is “Raising Hull” to increase awareness about the long term value of eco-friendly hull paints in the local recreational boating community. The “Raising Hull” marketing campaign was launched by the Port to help boaters understand the benefits of eco-friendly hull paints. Eco-friendly hull paints help protect a boat’s hull and the environment at the same time and can provide long term cost savings. For instance, non-biocide hull paints generally do not have to be reapplied as often and can last longer than commonly used copper antifouling hull paints.

Last summer, the Port began a hull paint conversion project to encourage boaters to switch to eco-friendly hull paints. The project was made possible by a \$600,000 grant awarded to the Port by the State Water Resources Control Board. The grant pays for a portion of the expense to remove copper hull paint. Boat owners are eligible to receive this cost offset if they repaint with non-biocide hull paint and their boat resides within Shelter Island Yacht Basin, a location under regulations to reduce copper.

The incentive will last through June 2014, or until the funds are exhausted. Shelter Island boaters planning on repainting their boats within the next two years can take advantage of these funds to help reduce the upfront cost of converting their boats.



Photo by: Port of San Diego 2009

Cost analyses by the Port and UC Coastal Resources Program-San Diego County show long-term cost-savings as a result of converting to a non-biocide hull paint.

The “Raising Hull” marketing campaign and hull paint conversion project play an important role in the Port’s efforts to address copper pollution bay-wide and regulations in the Shelter Island Yacht Basin. To learn more, visit www.sandiegobaycopperreduction.org.

Eat at a Clean and Green Restaurant

Looking for a great, eco-friendly place to eat? Check out one of the 470 certified restaurants in the Clean Bay Restaurant Certification Program of the Santa Monica Bay Restoration Commission. Clean Bay Restaurants can be found in Hermosa Beach, Malibu, Manhattan Beach, Rancho Palos Verdes, Redondo Beach, Santa Monica, and Torrance. To find a list of participating restaurants click on the program under “quick links” at www.santamonicabay.org.

Restaurants in the program must meet 100 percent of the program requirements, and certified restaurants receive a certificate to display their achievement. By meeting the requirements, restaurants reduce the amount of waste that enters our waterways. Some requirements include labeling storm drains, training employees, keeping trash covered, washing equipment over a drain that leads to a sewer or wastewater treatment system, having a recycling program, and having exterior ashtrays.

The Clean Bay Restaurant Program plays an important role in reducing pollutants that enter our local harbors. When water flows over the ground and paved areas, it picks up pollutants and carries them into our storm drain system. This polluted “runoff” flows through the drainage system and directly into our rivers, oceans, and harbors. The restaurants in the Clean Bay Restaurant Program help prevent and reduce the pollution, such as plastic, trash, and nutrients, in runoff that drains directly into the harbor. The increase in water quality due to pollution prevention is essential for a healthy functioning ecosystem and a harbor for all to enjoy.



Support healthy harbors. Eat at a Clean Bay Restaurant. For more information, contact Sarah Woodard at (213) 576-6641 or swoodard@waterboards.ca.gov.

Southern California Calendar of Events

- April 28
San Diego Dockwalker Training
- May 20
King Harbor Sea Fair
- May 31- June 3
Dana Point Boat Show
- September 15
Coastal Cleanup Day

For more information about any of these events, please contact Victoria Ippolito at vippolito@waterboards.ca.gov or (213) 620-2271.



Photo by: Sacramento Marina

Destination Series:

Sacramento Marina

The Sacramento Marina (Marina) in Miller Park near Downtown Sacramento was constructed in 1958 on 57 acres donated by the Frederick A. Miller family. At the beginning, the Marina was home port to up to 25 pleasure and work boats.

Today, the Sacramento Marina boasts 475 concrete slips, ranging in size from 25 to 50 feet. There is a fuel dock, store, launch ramp and plenty of guest docking.

Contributing writer:

Bud Camper, Sacramento Marina

Within walking distance (or a short cruise by boat or dinghy) are many restaurants, shops, attractions and watering holes located at the Historic District of Old Sacramento. Visitors may enjoy in Miller Park, picnicking, BBQ pits, and fishing along the banks of the Sacramento River.

In 2008, the Sacramento Marina was certified as a California Clean Marina. Since that time, Marina staff has worked closely with state, county, and city departments to continue to improve the Marina's environmental procedures and policies, as well as to inform and educate boaters on boating safely with minimal negative impact on the environment.

One of Sacramento Marina's most popular services is free (on dock) pick-up and disposal of used oil, filters, and batteries. The marina installed designated, environmentally safe facilities at various locations on the docks for customers to place these items for the dock staff to pick up. In addition, the marina offers several environmental services for boaters including free oil absorbents distribution and collection and fishing line collection. The marina is partnering with the Department of Boating and Waterways and the California Coastal Commission's Boating Clean and Green Program in the fishing line collection program. The fishing line stations are located at the fuel dock and launch ramp. Staff has also been trained as Dockwalkers through the Boating Clean and Green Program.

Sacramento Marina is host to the annual "Kids on the Water" day. The Marina invites up to seventy first and second graders from local schools to enjoy a fun-filled day of outdoor activities. In addition to entertainment, these kids are taught water safety, and how to keep our waterways clean.



Photo by: Sacramento Marina

The Marina also hosts a fundraising event each year for the Sacramento Delta Youth Maritime Association. The event is called Vessels & Vines and features works from local artists in the Delta area, a variety of wines from local wineries, food, and entertainment. Last year, the marina raised more than \$2,000.00 for this great youth organization.



Learn about Water Hyacinth and *Egeria Densa*

Hey boaters, what's green and purple and spreads all over? That's right—water hyacinth, an invasive aquatic plant introduced to California's Delta more than 100 years ago. With its deceptively beautiful purple flower desirable in backyard ponds, water hyacinth is one of the fastest growing plants on the planet, nearly doubling its population in two weeks during our hot Delta summers. While hyacinth floats on the water's surface, its invasive counterpart *Egeria densa*, another fast-growing species, is a submerged plant introduced here more than 50 years ago. *Egeria* is a popular plant used in aquariums - which may be how it was introduced to the Delta. Both plants are too widespread to eradicate completely, so the Department of Boating and Waterways (DBW) maintains programs for both plants to try to keep them under control.

Both water hyacinth and egeria impact biodiversity, recreation, and agriculture, among other things. The massive mats of hyacinth can prevent boat passage and block agriculture intakes. *Egeria* crowds out native plants, slows water flows, entraps sediments, obstructs waterways, impedes anadromous fish migration patterns, and clogs water intakes.



Photo by: DBW Water Hyacinth



Photo by: DBW Egeria densa

Last year's high water and Delta conditions were great for both plants, facilitating a very successful growing season. As the 2012 growing season fast approaches, DBW will again be the frontline of attack in trying to slow these plants down. DBW operates under several permits that place restrictions on where and when the department can conduct treatment programs. DBW also conducts an extensive monitoring program to help protect the Delta environment.

Now the bonus question: What looks and acts similar to hyacinth but isn't hyacinth? Oh, no! That's yet another invasive species, South American Spongeplant, which has recently been spotted creeping around in the Delta. Stay tuned for more information!



Photo by: Teri Ely Sponge plant

For more information, visit <http://www.dbw.ca.gov/Environmental/Aquatic.aspx>

Contributing writer: Terri Ely, CA Dept of Boating and Waterways

Fish Consumption Advisories in the Sacramento-San Joaquin Delta

Contributing writer: Alyce Ujihara, Environmental Health Investigations Branch, California Department of Public Health

Fish consumption advisories for the Delta have been recently updated. These advisories recommend that fish consumers limit or completely avoid certain kinds of Delta fish. While fish are an important source of protein and healthy nutrients, some fish caught in the Delta contain mercury at sufficiently high levels to be a health concern. Pregnant and nursing women, women of childbearing age, and children are most sensitive to harm. These populations should not eat any striped bass and sturgeon caught in the Delta due to elevated levels of mercury. But some types of fish including American shad, Chinook salmon, and steelhead trout are low in mercury and high in nutrients and can be enjoyed by all populations.

The Delta has different fish consumption advisories for the Northern Delta (including the Sacramento River) and the Central and South Delta (south of Highway 12). The Central and South Delta are some of the best places to fish. These regions have very low levels of mercury in popular fish like catfish and bluegill. See the Central and South Delta guidelines for sensitive populations shown in the table. For more information on Delta advisories, go to http://www.oehha.ca.gov/fish/so_cal/index.htm

A Guide to Eating Fish and Shellfish from the Central and South Delta including the San Joaquin River from the Port of Stockton to Pittsburg and all other water bodies south of Highway 12 (except the Sacramento River)

Women 18 – 45 and Children 1 – 17 Years

American shad	Bass	Striped bass
Bluegill and other sunfish	Carp	White sturgeon
Catfish	Crappie	
Chinook (king) salmon	Sucker	
Clams		
Crayfish		
Steelhead trout		
3-3 Servings a week Catfish—2 Servings a week	1 Serving a week	Do not eat

No one should eat any fish or shellfish from the Port of Stockton

Destination Series:

Tomales Bay

This shallow bay is approximately 12 miles long and less than one mile wide, with an average depth of 12 feet and the deepest point 61 feet. Tomales Bay is located in a submerged “rift” valley with the San Andreas Fault (the source of the 1906 earthquake that devastated San Francisco) running directly through the bay.

Contributing writer: Brad Damitz
(Environmental Policy Consultant)



Image by: California Coastal Commission - Mapping / GIS Unit



Tomales Bay (Marin County) is located approximately 40 miles northwest of San Francisco. The bay is a long, narrow coastal estuary opening up to the north at Bodega Bay and extending in a southeasterly direction, and is bordered by the Point Reyes National Seashore (PRNS) to the west and by Highway 1 to the east.

PRNS is located along the western shore of the bay encompassing over 71,000 acres of wilderness including scenic hiking trails and a picturesque coastline. Tomales Bay State Park is a day-use park with excellent hiking trails and beaches popular for picnicking, swimming, clamming and boating. Tomales Bay is one of the most ecologically significant estuarine areas in California. The bay provides excellent wildlife viewing opportunities, supporting more than 900 species of plants and animals within a diversity of habitats. Visitors will be able to see a large number of bird species, seals and sea lions, and sometimes even gray whales. The waters of the bay are also important to many fish species including salmon, sturgeon, halibut, and Pacific herring. These species rely on the bay's many creeks and eelgrass beds to spawn.

Tomales Bay is famous for its oysters, long drawing visitors to the area for a gourmet dining experience. The bay produces about 20 percent of California's commercial oyster crop annually.

Popular water sports on the bay include sailing, boating, kayaking, and fishing. Recreational fishing opportunities include halibut, perch, sole, striped bass, and Dungeness crab among others. The region also offers great areas for kayaking and visitors can also enjoy guided tours. Boat launching facilities can be found at Tomales Bay Resort (western shore of the bay) and at Miller County Park (east shore). There is also a sandy beach boat launch area at Lawson's Landing. While Tomales Bay offers outstanding recreational boating opportunities for all levels of experience, the sand bar at the mouth of the bay can have notoriously dangerous conditions, with a long history of small boat accidents.

Some pollution prevention services at the Bay include:

Used oil, oil filters and used oil absorbents collection

Lawson's Landing 137 Marine View Dr.
(707) 878-2443 Dillon Beach 94929

If you are planning to visit Tomales Bay, check some of the following resources:

http://www.parks.ca.gov/?page_id=470

<http://www.nps.gov/pore/index.htm>

http://www.nps.gov/pore/planyourvisit/upload/map_boatingcamping.pdf





Northern California Chapter

San Francisco Bay Fish Project and Advisory



The new San Francisco Bay fish sign (a simplified version of the advisory message) will be posted at different fishing spots around the Bay Area, starting in March 2012.

Contributing writer: Alyce Ujihara, Environmental Health Investigations Branch, California Department of Public Health

Eating fish is an important part of a healthy diet, but according to the San Francisco Bay Fish Project (SFBFP) some fish caught in San Francisco Bay (Bay) contain elevated levels of harmful chemicals, including mercury and PCBs. The presence of these chemicals in Bay fish is the basis for a current health advisory. The advisory recommends eating fish that are low in chemicals, such as jacksmelt, brown rockfish, California halibut, red rock crab, and salmon. Fish that are high in chemicals--surfperch, shark, white croaker, and sturgeon—should be eaten less frequently or not at all. Women ages 18-45 and children should not eat any striped bass but other populations can safely eat striped bass. For more details about the advisory, see

http://www.oehha.ca.gov/fish/nor_cal/2011Sfbay.html.

The California Department of Public Health started the SFBFP to raise awareness and understanding about chemicals in fish and to reduce exposure. The project collaborates with community-based groups, state and local agencies, and others. In March 2012, the SFBFP will begin posting advisory signs around the Bay. For more information about the project, please contact Aida Negrón at

aida.negron@cdph.ca.gov or visit www.sfei.org/sfbfp.

GET INVOLVED IN THE DOCKWALKER PROGRAM!

The California Department of Boating and Waterways and the California Coastal Commission's Boating Clean and Green Program in partnership with the Santa Monica Bay Restoration Foundation, the Keep the Delta Clean Program, and many more organizations invite you to become a Dockwalker. Training is free and Dockwalking is a fantastic way to interact with boaters to help keep California's marinas, waterways, and ocean clean and healthy. The training schedule and registration are found at www.BoatingCleanandGreen.com (Click on Dockwalker).

Delta to Bay: Success of the Honey Pot Day!



Photo by: Vivian Matuk

Honey Pot Day (HPD) is back for the 2012 boating season! The San Francisco Estuary Partnership (SFEP) will once again team up with several marinas in San Francisco Bay, the Delta, and Latitude 38's Delta Doo Dah to hold one full eight hour event in the Delta and several half-day Honey Pot Days in San Francisco Bay.

Boaters can participate by either showing up on the Honey Pot Days or by preregistering by contacting James Muller, information below, or visiting SFEP's website at

www.sfestuary.org/boating

The Delta HPD, covered in the Changing Tide's Winter 2011 issue, taught us a lot of lessons that we integrated into our San Francisco Bay Area event. A new and very effective strategy used to increase boater participation was to present boaters with the information before the Honey Pot Day. Because they had already been presented with the information, the boater didn't have to be present the day of the event.

Last year in October, San Francisco Honey Pot Days outreach educators worked with 45 boaters, 37 of which received free pumpouts. A total of 635 gallons of sewage was removed from these boats; more than double what was removed during the Delta days. All told, both events combined provided pumpouts to 64 boats, worked with 150 boaters, and removed almost 1,000 gallons of sewage!

This program is managed by the San Francisco Estuary Project and made possible by Clean Vessel Act Grants and through partnerships with the Department of Boating and Waterways and California Coastal Commission's Boating Clean and Green Program, Dockwalker volunteers, Baygreen Marine Sanitation, and six different marinas in the San Francisco Bay. The San Francisco Estuary Project is currently working with several San Francisco Bay Area marinas to bring the abbreviated event to their locations. If you are interested in hosting a bay area event at your marina, please contact James Muller at 510-622-2406 or jamuller@waterboards.ca.gov



Photo by: Vivian Matuk

Fun Way to Learn Boating Basics on the Web!



Photo by: DBW

In the absence of mandatory boater education, the Department of Boating and Waterways (DBW) runs a boating safety awareness multi-media campaign that provides positive safety messages for water enthusiasts as they prepare to go boating or think about owning or using a boat. The goal of the campaign is to increase awareness and encourage safe boating behaviors among boaters, fisherman, and personal watercraft operators, to decrease boating accidents, injuries, and fatalities in California's waterways. For more information, visit www.BoatCalifornia.com.

Contributing Author: Joleane King,
Department of Boating and Waterways

Did you know?

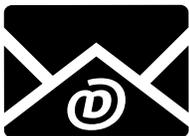


According to the 2011 California Motorized Boater Survey¹, when boaters were asked whether they could identify the national sewage pumpout logo, about 30 percent of boaters surveyed knew what the sewage logo meant.

Just like the recycling symbol, peace sign, or rings for the Olympics, did you know there is an official logo for sewage pumpout stations? All federally funded pumpout and dumpstation facilities are supposed to be marked with this logo. Keep an eye out for the national sewage logo when in a marina!

¹ California Department of Boating and Waterways, California Coastal Commission, Santa Monica Bay Restoration Foundation and Keep the Delta Clean Program. 2011. "2007 – 2009 California Motorized Boater Survey Final Report. A statewide examination of boating habits, environmental awareness and overall outreach and education program evaluation."

The Changing Tide newsletter is a great resource for you to get California's latest clean boating information. Help to reduce our carbon footprint and the amount of trash added to the waste stream by going paperless.



To go paperless, contact Victoria Ippolito at vipolito@waterboards.ca.gov or 213-620-2271

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