



Biocides

some things you should know

Petroleum diesel is susceptible to growing microbes (primarily fungi, mold, and yeast) in a tank with excessive air space.

Changes in daily temperature produce condensation on tank walls. Because water is heavier than fuel, the water sinks to the bottom of the tank creating an ideal habitat for microbes that feed on hydrocarbon fuels. If left untreated, these microbes can clog fuel lines, filters, and injectors.

In our last issue, we recommended adding biocides to diesel. However, caution is advised when choosing your biocide.

Even in small doses, the chemicals found in biocides can be toxic to humans, animals, and plant life. Once the microbes are killed, the resulting biomass settles to the bottom and creates a hazardous environment in the tank. The biomass must be properly handled in accordance with state and federal regulations for hazardous waste disposal.

You may expect to replace fuel filters often as the biomass is drawn from the tank. It may be necessary to have the fuel filtered and tank cleaned by a professional fuel filtering service, especially in rough weather, when the contents of a tank are shaken into suspension.

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Ditch the diet, CARB is back in fashion nationwide

No, we're not talking about pasta

Regulations developed by the California Air Resources Board (CARB) to prevent spills and vaporous emissions for jerry jugs are being adopted by states across the nation. To test them, the BoatU.S. Foundation tested CARB-compliant jerry jugs against non-CARB controls to find out how they work and what boaters need to consider when purchasing one of these new devices.

To test **vaporous emissions** through the sidewalls and nozzle of the tank, two full jugs of fuel were left outside for four months to test fuel evaporation. The CARB-compliant jug had no change, but the non-CARB jug lost weight – about one pound.

The **self-venting** nozzles of CARB jugs gulped and burped air as they poured, slowing the flow to less than two gallons/minute. The non-CARB jugs had separate vent openings yielding much faster flow rates averaging three gallons/minute.



Filling your fuel tank with a jerry jug can sometimes feel like a torturous workout rather than preparation for a great day on the water. Even with three hands, attempting to balance a 30lb. fuel jug without spilling would be a grueling test of your upper-body strength. Boaters need an easy-to-handle portable fuel container that doesn't spill, leak or require complex calisthenics to use.

Auto-stop features shut off the flow of fuel when not pouring. On the CARB jugs, these were usually tabs, of varying sizes, that must be pressed against a lip inside the deck-fill to open the vent. If the tab slips off (a frequent occurrence), the nozzle will close and the tab must be reset to restart flow. One jug, the No-Spill, had a push-button vent-release to control flow, which was more reliable than the tabs.

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bay restoration foundation
STEWARDS OF SANTA MONICA BAY



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Boating goes green in Southern California *Boating education program updates*

It's a busy time of the year for Southern California boaters as they gear up for a productive and exciting boating season in 2008. We've been preparing boating events, training volunteers, and developing new pollution prevention services. Keep reading to find out how you can be part of our clean boating team.

On March 29th, the Santa Monica Bay Restoration Foundation (SMBRF), in partnership with California Coastal Commission (CCC), Cal Boating's Boating Clean and Green program, Santa Monica Windjammers Yacht Club, Fairwind Yacht Club, the Association of Santa Monica Bay Yacht Clubs (ASMBYC), and the Women's Sailing Association (WSA), conducted a free Dockwalker volunteer training workshop in Marina del Rey. Vivian Matuk of CCC and Cal Boating led the workshop to train new Dockwalker volunteers on how to conduct face-to-face outreach about environmentally sound boating practices. After the one hour training workshop, these 34 brave volunteers headed out to several neighborhood locations, including West Marine, Cal Yacht Club, King Harbor Yacht Club, and South Coast Corinthian Yacht Club to "walk the docks." Volunteers engaged with members of the public and boating community to adopt clean boating practices such as how to use an oil absorbent and how to dispose of it properly, encourage use of natural and biodegradable cleaning products as an alternative to products with toxic components, how to prevent the spread of aquatic invasive species, etc. That day, volunteers distributed over 50 boater kits filled with essential goodies such as oil absorbent pillows and booklets about clean boating habits (valued at \$40 per boater kit!).



Thanks to our active volunteers and partners, we are able to expand our outreach efforts to the 900,000+ boaters in California and ultimately towards improving the health of our oceans.

Wanna give back to your community?

Here is your chance. Become part of our Dockwalker volunteer team and join us in our efforts to restore our bay. Join us in honor of Earth Day, for a Dockwalker event on Saturday, April 19 in Marina del Rey and Redondo Beach.



Newly trained Dockwalkers are encouraged to attend. Volunteers will win prizes! Remember, the Dockwalker who distributes the highest number of boater kits by October 27, 2008 will receive an awesome jacket donated by West Marine.



Another notable project for the upcoming boating season will take place in King Harbor, Redondo Beach – the project is called the "Redondo Beach Boater Study." This project expands our study of Marina del Rey boaters in 2007 and has two main components: interviews of boaters using the public pumpout stations and a mail back survey of all wet-slip tenants in King Harbor. Think of this project like a census – we are collecting data straight from the primary users of the waterways – boaters like you!

Study results will be used towards improving the state of water quality in King Harbor and will help identify ways to improve your boating experience. We are looking for motivated volunteers to help conduct interviews. Would you like to join our volunteer team on the docks?

Interested in volunteering? Contact Grace Lee at glee@santamonicabay.org or (310) 216-9828.

Port of Los Angeles Takes on L.A. Harbor Vessel Disposal

They say that the two happiest days in life are the day you buy your boat and the day you sell it.

That old joke aside, the reality is that it takes constant attention to keep a boat in safe, working condition. Many boaters thoroughly enjoy fixing and smartening up their vessels. Unfortunately, many boaters can run into any number of circumstances that may prevent them from maintaining their vessels as needed. Without proper attention, boats can quickly deteriorate under the relentless pressure of the elements.

Sadly, in these cases a boat may be in danger of sinking, becoming a threat to the environment and navigation. With demolition costs running into thousands of dollars, many boaters are at a loss about what to do when faced with such a situation. And many marina operators worry that they could end up with a problem should a boater decide to walk away.

The Port of Los Angeles recognizes that the cost to raise a sunken vessel and clean up the environment far outweighs the cost to dispose of a boat properly before an accident occurs. More importantly, it often takes time for the environment to recover from the polluting effects of a sinking boat. Therefore, the Port instituted a program -- possibly the only one of its kind in California -- to help L.A. Harbor boaters to deal with this problem.

The vessel disposal program enlists the help of boaters and marina managers to identify vessels that are at risk. It requires owners of potential boats to complete a disposal agreement, but does not charge the boater any disposal fee. A port contractor verifies identification of the boat, makes an inventory of polluting and hazardous materials, and makes a determination if the boat can be safely moved from its slip. An environmental consultant to the Port then ensures

that all hazardous materials are safely removed and disposed of properly. The boat is then brought to Berth 194, where Port personnel demolish and dispose of it.

Since its inception in September 2007, this \$300,000 program has already safely disposed of over 120 recreation vessels from the L.A. Harbor, and looks to take 25 more risky boats out of the water before it is finished. It has been a hit with boaters and marina operators, and has protected the environment while saving precious time and resources of local police and fire departments, as well as the U.S. Coast Guard.



We're moving closer to the Bay!



After several years in the Junipero Serra State Building in downtown Los Angeles, the Bay Restoration Foundation Boater Education Program is moving. Away from the bustling downtown Los Angeles, SMBRF is now located at Loyola Marymount University - situated on the northeast side of campus.

Here's our new contact information:

1 LMU Drive, North Hall
Pereira Annex MS: 8160
Los Angeles, CA 90045.

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Boater Education Program Coordinator
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Boater Education Program Assistant
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Nestled on the waterfront at the foot of the San Francisco/Oakland Bay Bridge, Emeryville lies in the center of San Francisco Bay and has a rich history from the earliest inhabitants. The Ohlone Native Americans inhabited the site, gathering oysters and mussels, digging for clams on the tide flats and lush marsh, and fishing for salmon along Temescal creek. They left a shellmound 300 feet in diameter and 40 feet high that could be seen from across the bay.

Originally a northern suburb of Oakland, Emeryville, 1.2 square miles, became a city through the efforts of businessman Joseph S. Emery in 1850. Joseph was one of the primary builders of the California-Nevada Railroad, which began in Oakland and crossed the burgeoning Emery Tract. A community began to develop around the Emery Tract, and the town of Emeryville was officially incorporated in 1896. By the late 1920's the upper Shellmound had been demolished and the site transformed with industrial development.

Today Emeryville is known for its eclectic residential/ industrial neighborhoods, lofts, galleries and waterfront views. A sense of pride and innovation pervades this lively community with its thriving retail, entertainment and business centers.



Photo By: Irina Smilovitsky

Services for Environmentally Sound Boating in Emeryville

Environmental services for boaters are available and include sewage pump out stations, oil absorbent distribution and collection, oil filters and used oil collection. Recycling containers and trash receptacles are located at the foot of each gate. Emeryville City offers a free bus "Emery-Go-Round" that connects with both BART and Amtrak stations.

Boating in Emeryville

There are three marina facilities located on the Emeryville Peninsula; Emery Cove Yacht Harbor, a 430 slip private 'dockominium' marina and home to the Emeryville Yacht Club, Emeryville Marina, a 354 slip private marina, and Emeryville Sportfishing, one of the San Francisco Bay Area's finest fishing fleets. Boating in Emeryville offers beautiful views of the city and the bay with easy access to the open water. Angel Island, Alcatraz and three Bay Area bridges are in view and options for any day adventure on the water! There is a two lane launch ramp with trailer parking, accommodations for large groups of guest berthing, fuel, ice, modern restrooms and showers, groceries and restaurants within walking distance.

Nearby

'The Bay Trail', a planned recreational corridor, winds around the peninsula, through the marinas and along the shoreline for biking, hiking, bird watching and coastal views towards San Francisco and the Golden Gate Bridge. There are numerous restaurants, galleries, theatres and shopping at Bay Street Emeryville, an urban village where people can shop, dine and be entertained.

News from the Northern Chapter



Visit the Updated Boating Clean & Green Website

The statewide **Boating Clean and Green** program has updated its website (www.coast4u.org - Click on **Boating Clean and Green**). In the new website you will find not only materials developed by the program, but also information and resources that will help to ensure that safe and clean boating is part of the boaters' and anglers' experience enjoying California waterways. You will find information on topics such as: Clean Boating Practices; Weather, Tides, and Maps; Locations of California Environmental Services for Boaters; Safe Boating; How to Become a Dockwalker; What to Consider Before Buying a Boat or Selecting a Broker; Disposing of an Unwanted Vessel; and much more.

The website provides information and resources that will assist marine business in implementing practices to support their clean marine business efforts. Resources include: Funding Opportunities, Laws and Regulations, Clean Marine Business Resources, and Abandoned Vessel Information. On the website you

will also find the updated Annotated Catalog of Marina and Recreational Boater Pollution Education Materials www.coastal.ca.gov/ccbn/catalognew.html. The purpose of this catalog is to provide you with a list of resources you can use to work with boaters as partners in your clean marine business efforts. Available resources include:

- | | |
|---------------------|-----------------------------|
| ✓ audiovisual | ✓ booklets |
| ✓ brochures | ✓ fact sheets |
| ✓ handbooks/manuals | ✓ leaflets/mailers |
| ✓ newsletters | ✓ maps |
| ✓ packets | ✓ point of purchase display |
| ✓ posters | ✓ signs |
| ✓ stickers | ✓ tide tables |
| ✓ wallet cards | |

Please check the updated website and let us know if we are missing materials from your program or from other important programs, or any other ways that we can continue to improve your website!

Get on Board! Become a **DOCKWALKER** and Help Boating Be Clean, Safe & Fun!

The California Coastal Commission and the California Department of Boating and Waterways' **DOCKWALKERS** program trains volunteers about environmentally sound boating. The program partners with several organizations throughout the state, including: the Keep the Delta Clean program, the Santa Monica Bay Restoration Foundation, Project-Greenworks, the US Coast Guard Auxiliary, the Humboldt Baykeepers, Save Our Shores, the



Alameda Training. Coast Guard Island, February 9th, 2008

Association for Santa Monica Bay Yacht Club, Women's Sailing Association, Santa Monica Windjammers Yacht Club, and Fairwind Yacht Club, among others.

Dockwalkers distribute boater kits while visiting marinas, boat launch ramps, boat shows and events. The kits include an oil absorbent pillow, infor-

mation about safe and clean boating, a tide book, a ski flag, and more. Dockwalkers talk to boaters and provide information on clean boating practices and the locations of local environmental services that help make it convenient to boat clean and green.



This program is dedicated to the idea that education is the key to improving boater practices. Marinas and our waterways benefit from Dockwalkers through their efforts to increase boaters' awareness about clean boating. There are over 500 Dockwalkers statewide who have distributed more than 60,000 boater kits since the year 2000.

This summer we will be conducting several trainings throughout the state. To learn more about the Dockwalkers program and upcoming trainings, visit our website at www.coast4u.org (click on Boating Clean & Green) or contact Vivian Matuk at (415) 904-6905 vmatuk@coastal.ca.gov

Discovery Bay: Live Where You Play



Photo Courtesy of Discovery Bay Yacht Harbor

By Jeff Dawson, Harbor Master

California's Delta shares the distinction with the Nile River of Egypt as being one of the most easily recognized delta-shaped landmasses in the world when viewed from space. Discovery Bay is one of the most recognized areas in the Delta from a terrestrial base.

Originally intended as a rural get-away spot for week-enders and retirees, it now boosts a vast majority of year-round residents. "Live where you play in Discovery Bay" became the byline for the area.

With over 1200 miles of waterway at their back door, residents enjoy a plethora of water oriented activities such as boating, windsurfing, swimming, waterskiing, wakeboarding, sailing, kayaking, jetskiing and fishing.

Supporting residents and mariners alike are Discovery Bay Yacht Harbor, Discovery Bay Yacht Club and the Marina Boardwalk.

The Discovery Bay Yacht Harbor offers covered and uncovered slips, guest slips, dry-stack storage, fuel dock, propane, pump out station, and a two-lane public launch ramp.

The Boardwalk offer a wide variety of marine-oriented shops ranging from a chandlery, canvas shop,

yacht sales, hydro-hoist sales and service, tanning salon, upscale apparel, and even a real estate and mortgage office. The restaurant will reopen in the spring of '08, offering dinning right on the water.

Our Yacht Club is one of the most desirable private yacht clubs in Northern California; offering dining, bar and meeting facilities for members along with numerous activities year round.

Discovery Bay Yacht Harbor is a proud and active participant in the "Keep the Delta Clean Project". We offer collection sites for used marine batteries, waste oil and filters plus recycling bins for aluminum, glass, plastic and paper -- all available to the public free of charge.

Discovery Bay Yacht Harbor is not just a place for boaters. The Harbor is a viable part of the entire Discovery Bay community.

Every year in May the Discovery Bay Lions Club holds their annual Discovery Bay Boat Show at the Harbor. This is a 3-day high quality event. All the proceeds from the nominal admission fee go to the Lions Club. The show features new boats, both ashore and in the water, food, and daily entertainment. Colorful booths have all sorts of marine accessories along with many other goods and services.

August marks the time for the Discovery Bay Lions Club annual Big Cat Poker Run. This is a great event to raise money for local charities, enjoy some time on the water and get a great look at some fabulous fast boats.

Opening Day and the Christmas Lighted Boat Parades are held in April and December respectively.

Come join us any time of the year for a fun and safe time on our Delta. www.discoverybayyachtharbor.com

Discovery Bay Yacht Harbor

5901 Marina Road, Suite #1

Byron, CA 94514

Nautical Chart: 18661 Phone: (925) 634-5928

News from the Delta Chapter

The Delta Chapter is implemented with the support of: Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties; City of Stockton; California Coastal Commission; and Department of Boating and Waterways



Schedule Your Free Event With Keep the Delta Clean

By Janet Smartt and Vivian Matuk

As many *Changing Tide* readers know,

the Keep the Delta Clean Program mission is to improve access to convenient, free and publicly available marina based pollution prevention services and to provide valuable resources for the Delta boating community. Our goal is for these services and resources to inspire environmentally sound and safety conscious decision making while boating in the California Delta.

With the 2008 boating season right around the corner, the Keep the Delta Clean Program is ready to support Delta marine businesses with fun, free events which include safe & clean boating giveaways. We're ready to come to your busy marina, yacht club, store, or similar facility to engage with the Delta boater community via fun face-to-face boater outreach. Let us support your boating education efforts; and we'll do the legwork!

To discuss scheduling an event at your marine business, please contact Communications and Outreach Manager Janet Smartt: (510) 524-8062, janetsmartt@gmail.com.

In Memory of a Friend - Fran Abbot



The bright light Fran Abbott cast upon all who knew her was dimmed on March 4, 2008 as she lost her fight against cancer. Fran was an active member of the Delta community who worked hard to inspire environmental conservation and community development in San Joaquin County. She was a great friend of the Keep the Delta Clean Program and a dedicated Dockwalker. As a member of the San Joaquin County Solid Waste and Storm Water Divisions, Fran was a true pioneer who directed her incredible energy to many great social and environmental causes. She is survived by her four chil-

dren Rose, Diana, Becky and Doug.

Fran, we miss you immensely and will honor you by resonating your energy and enthusiasm for life.

Order Free Materials With Keep the Delta Clean

The Keep the Delta Clean Program is excited to announce that our free, fun boater outreach items are ready to order. Whether you're an individual Delta boater who needs just one, or a marina operator who needs hundreds for your residents and renters, we're eager to distribute the items below.

Clean and Safe Boating Posters

Printed on paper with a UV resistant coating, these posters are perfect for marinas, yacht clubs, and other areas where boating traffic is high. Hang them in the office, near restrooms, in the kiosks, or on the door. The colors are playful and the messages are positive. We have seven different themes (Trash, Fueling, Pumpouts, Engine/Oil, Maintenance, Fishing Line, and Volunteer Dockwalkers). Order one or two of each.

Sacramento-San Joaquin Recreational Boating Map

The map features boater services offered at 81 participating central and southern Delta marinas. Basic boater services such as ice, restrooms, and boat launch ramps are listed, as well as locations of pollution prevention services. 54 Certified Used Oil Collection Center locations are provided, and new for this season, the map lists contact information for three Delta mobile pumpout service providers. The back of the map lists tons of helpful information about safe and clean boating practices. This map is wildly popular with both new and seasoned Delta boaters. It was printed on waterproof paper and updated in late 2007.

Delta Boater Kit

Boater Kits contain a big, canvas tote bag, bright orange safety flag, Delta recreational boater map, oil absorbent bilge pillow with instructions, and three invaluable pamphlets from the Department of Boating and Waterways: The ABC's of California Boating Law, Clean Boating Habits, and Personal Floatation Devices.

To order these great free materials, please contact Dan Jordan at Contra Costa County Public Works Dept. djord@pw.cccounty.us or call (925) 313-2023.

BoatU.S. Foundation - CARB compliant jerry jug findings

Continued from front cover



The non-CARB jugs had no similar features to control the flow and ounces of fuel spilled when fitting the nozzle into the deck-fill. A funnel is necessary to catch these spills.

In general, the slower flow of CARB jug gives the user more time to react to a nearly full fuel tank but most devices spilled or dripped, despite our diligent efforts. It's important to have an oil-absorbent pad when fueling. The staff favorite, the No-Spill, had the fewest leaks and fit our test boat perfectly.

“Carbs” are here to stay. And while they can't help you squeeze a few more pasta dinners into your diet, CARB standards have generated a variety of innovative jerry jug designs. But don't take your purchase lightly. With flow rates under 2 gallons per minute, you'll be holding the jug longer than it takes to microwave a spaghetti dinner.

Contributed By Amanda Suttles

For the full report visit www.boatus.com/foundation and look for *Foundation Findings #43 Portable Fueling Devices*

Biocides

Continued from front cover

Over time, biocides lose their effectiveness as microbes build immunities to the chemicals. Occasional dosing can accelerate this action.

The good news is there are safe, alternative ways for boaters to keep fuel tanks clean and free from biological growth. Keeping your tank full lessens condensation from temperature fluctuations. You may also install fuel/water separators and filtration systems or use nontoxic additives (i.e., magnetic fuel decontaminators that prevent condensation). Check with your marine supply store for more information on these products.



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A SMBRF, CCC, DBW, and Keep the Delta Clean Program Publication for the California Clean Boating Network

www.santamonicabay.org ⚓ www.coastal.ca.gov ⚓ www.dbw.ca.gov ⚓ www.keepthedeltaclean.org



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