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SACRAMENTO –  
SAN JOAQUIN RIVER

# DELTA



## Pumpout Guide & Map for Boaters



Published by the California Department of Boating & Waterways  
and the San Francisco Estuary Partnership

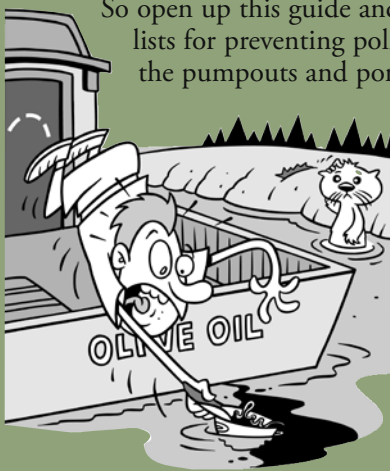
# The Scuttlebutt

Captain your boat the clean way! Follow the tips in this guide for running a tight ship, and you can avoid such indelicacies as flushing your head into a school of stripers or spilling bilge oil into the sparkling blue deep. With these tips in mind and this map in hand, you can help keep our waters clear and clean for everyone who boats, sails, surfs, skis, swims, and fishes in San Francisco Bay and the Delta.

As of 2007, there were 964,881 registered boats\* in California — enough to make a sizable impact on water quality.

While the amount of sewage pollution contributed by boaters isn't enormous, it does impact the health of human water users and the Bay-Delta ecosystem. Swimmers, windsurfers, or boaters who come in contact with raw sewage can get stomach aches, diarrhea, skin rashes, hepatitis, and even typhoid or cholera. Diners with a taste for raw clams, oysters, or mussels face some of the same perils if the shellfish have been contaminated with sewage. Fish can die when the biological processes that break down sewage steal too much oxygen from their waters.

Sewage is not the only problem. Today, many of the products we use to run and maintain our homes, gardens, workplaces, vehicles, and even boats are ending up in our creeks, rivers, and bays — the same watersheds that provide drinking water to 22 million Californians and irrigate 4.5 million acres of farmland.



So open up this guide and review its five to-do lists for preventing pollution, and its map of the pumpouts and port-a-potty dump stations

located at marinas and yacht harbors around San Francisco Bay. Then stash your new guide in a handy dry place so you can always find it when you feel like doing your part to keep our Bay a world-class waterway.

# Clean Boater's Oath

⚓ I will not use the Bay as a water closet.

⚓ I will pump and dump at a convenient marina receiving station.

⚓ I will use vim and vinegar to swab the decks.

⚓ I will make merry but be wary (accidents lead to spills).

⚓ I will deliver my trash to onshore receptacles.

⚓ I will share these wise words and maps with fellow seadogs and mariners.



# Scoop on Poop

- ⚓ A weekend boater flushing untreated sewage into the Bay produces the same amount of bacterial pollution as that of 10,000 people whose sewage passes through a treatment plant.
  - ⚓ Over 100 different intestinal pathogens — viruses, parasites, and bacteria — can be found in sewage.
- 10,000:1**
- ⚓ Fecal coliform counts dropped from 16,000 per 100ml to 23 per 100ml in California's Avalon Harbor after the harbor launched a boater education and clean water program. As part of the program, dye tablets are deposited in on-board toilets, making illegal discharges highly visible.
  - ⚓ Synthetic hormones (from birth control pills and hormone therapy) secreted via women's urine into waterways can be absorbed by fish, causing physiological changes and affecting the reproductive ability of male fish. Antibiotics and other drugs taken by humans are also turning up in our waterways.

Sources: 1) SF Bay Regional Water Quality Control Board; 2) Managing Wastewater in Coastal Urban Areas, National Research Council, pp. 203-226; 3) Avalon Harbor; 4) Karen Kidd, Winnipeg Freshwater Institute, Gov. of Canada, Fisheries & Oceans



# Potty Prep

- ⚓ Before you board, use the shoreside restroom facilities.
- ⚓ Choose one of three U.S. Coast Guard certified types of Marine Sanitation Devices (MSDs) or a port-a-potty to hold or treat your waste (see "The Equipment" for more details).
- ⚓ Look for environmentally friendly disinfectants for your MSD. Whenever possible, choose products with ingredient lists that do not include chlorine, formaldehyde, or other components that can be harmful to aquatic organisms and detrimental to pumpout facilities with septic systems.
- ⚓ Keep your MSD in good operating condition. Make sure all fittings, hoses and other pump mechanisms stay clean and lubricated.
- ⚓ Keep a complete repair kit on board for your particular type of head.
- ⚓ To help prevent clogs look for rapid-dissolving marine toilet tissue specifically designed for MSDs. Post use instructions near the head.



# The Equipment

A Marine Sanitation Device (MSD) prevents pollution from the discharge of untreated sewage from a boat. According to U.S. Coast Guard regulations, all boats with an installed toilet must have one of the three types listed below.

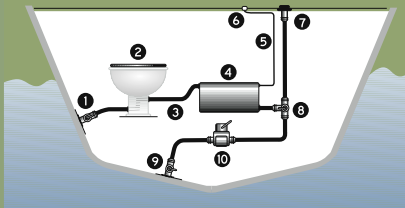
Type I and II MSDs break up the sewage and disinfect it with chemicals. It is legal in most instances to discharge from either type directly overboard, but you must add the appropriate chemicals for treatment. Without this treatment, discharge from a Type I or II system is considered raw sewage and remains illegal within the three-mile limit (see *The Rules*).

Type III MSDs, most commonly used by boaters, provide a holding tank for storing untreated sewage until it can be properly disposed of at an onshore pumpout station that connects to a local sewer system. Type III MSDs can also be pumped out by mobile units that dispose of the waste into the sewer system. Adding chemical deodorizers does not constitute treatment and does not allow you to dump wastes overboard.

Some Type III MSDs have a “Y” valve, which allows you to dump directly overboard when you are operating outside the three-mile limit (except within federally designated No-Discharge Areas). Within the limit, you must secure the valve in the closed position with a padlock or non-releasable wire tie or remove the handle entirely.

## Typical Type III MSDs

Holding Tank with Multiple Discharge Options



- |                     |                                |
|---------------------|--------------------------------|
| 1 Raw Water to Head | 7 Waste Deck Fitting (Pumpout) |
| 2 Marine Head       | 8 Y-valve                      |
| 3 Discharge to Tank | 9 Thru-hull Discharge Valve    |
| 4 Holding Tank      | 10 Macerator Pump              |
| 5 Tank Vent Hose    |                                |
| 6 Vent Fitting      |                                |

# Ins and Outs of Pumping Out

- ⚓ Close nozzle valve on pumpout hose.
- ⚓ Remove deck waste fitting cover from boat (attach nozzle guard to deck waste fitting if available) and insert nozzle.
- ⚓ Turn on pump.
- ⚓ Open nozzle valve. (Valves can be difficult to turn — be persistent!)
- ⚓ Check the flow through the sight glass. If flow doesn't occur within one minute, place the nozzle in water for ten seconds. If there's still no flow, check for an air leak in the line or a plug in the holding tank air vent.
- ⚓ When tank is empty, close the nozzle valve.
- ⚓ Remove the nozzle from the deck fitting.
- ⚓ Turn off the pump and return the hose when you're finished so it will work for the next boater.
- ⚓ Use the pump! Know the location and operation of pumpout and pumpout facilities for marinas you frequent. The map and table inside shows you where to find these facilities around the Delta.
- ⚓ Thank your local marina owner for keeping pumpout facilities in good working order. Report any breakdowns immediately to the marina operator, local environmental health agency, or local boating law enforcement officer.
- ⚓ NEVER discharge untreated sewage wastes into the Delta or Bay.
- ⚓ If you must discharge treated sewage from Type I or II MSDs, avoid sensitive areas of shellfish beds, fish spawning areas, and all areas where people are swimming, windsurfing, or water skiing. Never discharge in shallow bays, marinas, or places with little water movement or tidal flushing.
- ⚓ Be aware that Marin County's Richardson Bay is a "No-Discharge Area" where discharge of sewage, treated or untreated, from a vessel is strictly prohibited. When boating in Richardson Bay, a Type I or II MSD must be secured or the toilet sealed to ensure no wastes escape.

# Pumpout Pointers

⚓ Find a pumpout station. It only takes a few minutes to pump the wastes out of your holding tank. For a free map of the Delta pumpout stations, call (510) 622-2406 or see [www.dbw.ca.gov](http://www.dbw.ca.gov).



⚓ Follow pumpout instructions. If instructions aren't posted or aren't clear, ASK! Encourage the marine operator to post easy-to-understand instructions.

⚓ Rinse water through the system for one minute once you've finished. Expensive breakdowns commonly occur when the marina's sewer lines get clogged because of inadequate rinsing. Flushing water through the system is cheap preventive maintenance.

⚓ Pump out only your holding tank. Pumpouts are not designed to handle bilge water or solid objects.

⚓ Turn off the pump when you're finished. Yes, boaters do pump out their holding tanks and then drive off, leaving the unit still running. Make sure the pump is off before pulling away so it will work for the next boater.

⚓ Consider using a mobile pumpout service if you don't want to service the holding tank yourself.

## PUMPOUT GRANTS

Grants are available to public and private marinas for construction, maintenance, and renovation of pumpout facilities and port-a-potty dump stations through provisions of the Clean Vessel Act of 1992 (covers up to 75% of cost). For more information, call the California Dept. of Boating and Waterways at (888) 326-2822.

# The Rules

⚓ Discharges of untreated sewage are prohibited within the navigational waters of the U.S. (an area that includes the entire San Francisco Bay and Delta and extends three miles seaward beyond the coast).  
33 U.S.C. 1322

⚓ Fines of up to \$2,000 can be imposed for illegal discharges. CWA §312 (j)

⚓ It is legal to discharge untreated sewage at sea (you must be at least three miles out from the coast) except in the Gulf of the Farallones National Marine Sanctuary, Monterey Bay National Marine Sanctuary, and Cordell Bank National Marine Sanctuary, (see map), which have the same discharge restrictions (no untreated sewage) as inland waters.

Title 15, CFR, Sec. 922.82(a)(2)(ii)(A)

⚓ All boats with installed toilets must have a U.S. Coast Guard-certified Marine Sanitation Device if operating in U.S. navigational waters. 33 CFR Part 159

⚓ Vessels with a Type I or Type II Marine Sanitation Device must treat their sewage before discharge. For a Type I MSD, the fecal coliform count in the effluent must be no greater than 1,000 per 100 milliliters of water and have no visible floating solids. For a Type II MSD, the fecal coliform count must be no greater than 200 per 100 milliliters, and suspended solids no greater than 150 milligrams per liter. 33 CFR Part 159

⚓ Discharges of any kind, treated or not, are prohibited in Richardson Bay — a designated No-Discharge Area. 40 CFR Part 140.4

⚓ When operating on the navigable waters of any lake, reservoir, or freshwater impoundment, the vessel toilet must be sealed, rendered inoperable, or designed so no human sewage can be discharged in the water.  
Div.104, Part 13, Chapter A, CHSC

⚓ Discharges of oil or other hazardous substances are prohibited within 12 miles of the coast and within fisheries and marine preserves up to 200 miles from the coast under the Clean Water Act.

40 CFR Part 110.6

# If it's Your Boat it's Your Responsibility

## SWAB & SPILL DRILL

- ↙ Fill your fuel tank carefully, and avoid topping off. Soak up any spills – DO NOT HOSE DOWN.
- ↙ Promptly fix engine and fuel line leaks to prevent oil and fuel spills. Minimize spills before and during repairs by placing a drip pan under the leak. Dispose of your motor oil and used oil filters at a waste oil recycling center.
- ↙ Place a bilge pillow (an oil absorbing sponge or bioremediating boom) in your bilge to remove oil. Remove oily bilge water at a bilge pumpout station.
- ↙ Clean your boat with non-toxic detergents and avoid rinsing into the Bay. Check out “The Alternatives” for non-toxic options to common boat cleaning and maintenance products.
- ↙ Use maintenance methods that prevent pollutants, sanding dust or other debris from being released into the water. Limit in-the-water maintenance and cleaning to times and places where debris can be captured and disposed of properly.

## CLOG & CLUTTER CONTROL

- ↙ Avoid chopping vegetation with your boat propeller. Exotic (invasive) plants *Egeria densa* and *hydrilla*, are easily spread this way. Before moving your boat from one lake, bay, or river to another, inspect it for hitchhikers. Then purge your vessel of invasive plant fragments and aquatic critters by flushing and draining your systems, emptying bait buckets, cleaning tackle and gear, and pressure-washing the hull with hot water. Dispose of any debris at on-shore garbage facilities.
- ↙ Stock your boat with reusable cups, plates and other utensils. Avoid plastic and Styrofoam, which can easily blow overboard, and must be hauled to shore for disposal.
- ↙ Retrieve plastic trash, netting, six-pack yokes, and other items from the water and bring them back to the dock. Floating and shoreline trash can not only entangle, injure, or kill marine life, but also damage other vessels.

## The Alternatives

PRODUCT	NON-TOXIC APPROACH
DETERGENT & SOAP	Fresh water and a lot of elbow grease
BLEACH	Hydrogen peroxide
SCOURING POWDERS	Baking soda or salt
FLOOR CLEANER	One cup white vinegar in 2 gallons water
WINDOW CLEANER	One cup vinegar in 1 quart warm water
VARNISH CLEANER	Wipe with 1/2 cup vinegar and 1/2 cup water solution
HEAD CLEANER	Brush with baking soda
SHOWER CLEANER	Wet surface, use scouring cloth with baking soda
ALUMINUM CLEANER	Use 2 tablespoons cream of tartar in 1 quart of water
CHROME CLEANER/POLISH	Apple cider vinegar to clean, baby oil to polish
FIBERGLASS STAIN REMOVER	Baking soda paste
DRAIN OPENER	Disassemble and replace; avoid toxic products
MILDEW REMOVER	Paste of equal parts lemon juice and salt
WOOD POLISH	Use 3 parts olive oil and 1 part white vinegar; almond or olive oil (interior unvarnished wood only)

This guide was produced by the San Francisco Estuary Project in cooperation with the California Department of Boating and Waterways under a grant from the Clean Vessel Act. The information presented in this guide is accurate to the best of our knowledge. The San Francisco Estuary Project assumes no responsibility and disclaims any liability for any injury resulting from the use or effect of any product or information in this publication.

# The Green Pages

## EMERGENCY

911 or Channel 16 (VHF)

## WATER QUALITY AND SEWAGE SPILLS

San Francisco Bay Regional  
Water Quality Control Board  
(510) 622-2300

## BOATING INFORMATION

California Department of  
Boating and Waterways  
(888) 326-2822

San Francisco Estuary  
Partnership (510) 622-2406

## COUNTY POLICE & SHERIFF BOAT/MARINE UNITS

Contra Costa  
(925) 646-2441

Napa (Lake Berryessa)  
(707) 253-4451

Sacramento  
(916) 874-5115

San Joaquin  
(209) 468-4400

Solano (707) 421-7090

Yolo (530) 666-8282

U.S. Coast Guard  
(415) 339-3530

## OIL SPILLS

California Emergency  
Management Agency  
(800) OILS-911

## OIL RECYCLING

(800) CLEAN-UP  
[www.earth911.com](http://www.earth911.com)

## PUMPOUT INFORMATION

For the nearest pumpout  
station in California see:  
[www.dbw.ca.gov](http://www.dbw.ca.gov) and click on  
'Clean and Green'

## BOATING SAFETY

U.S. Coast Guard  
[www.uscgboating.org](http://www.uscgboating.org)

California Dept. of  
Boating and Waterways  
[www.dbw.ca.gov](http://www.dbw.ca.gov)

## BOATING SAFETY CLASSES

U.S. Coast Guard  
<http://nws.cgaux.org>

U.S. Power Squadron  
(919) 821-0281

## FISH & WILDLIFE

California Dept. of Fish &  
Game Hotline (CalTip)  
(888) 334-2258

National Invasive  
Species Hotline  
(877) 786-7267

Marine Mammal Center  
(injured marine mammals)  
(415) 289-7325

WildCare  
(injured terrestrial animals)  
(415) 456-SAVE

## HUMAN HEALTH

California Dept. of Public  
Health, Environmental Health  
Investigations Branch (Fish con-  
sumption warnings)  
(510) 620-3620  
[www.ehib.org](http://www.ehib.org)

California Dept. of Public  
Health, Biotoxin Division  
(Shellfish Information  
Hotline—warnings)  
(800) 553-4133

## SPONSORS

California Dept. of  
Boating and Waterways  
2000 Evergreen St., Suite 100  
Sacramento, CA 95815-3888  
(888) 326-2822  
[www.dbw.ca.gov](http://www.dbw.ca.gov)

San Francisco  
Estuary Partnership  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
(510) 622-2406  
[www.sfestuary.org](http://www.sfestuary.org)

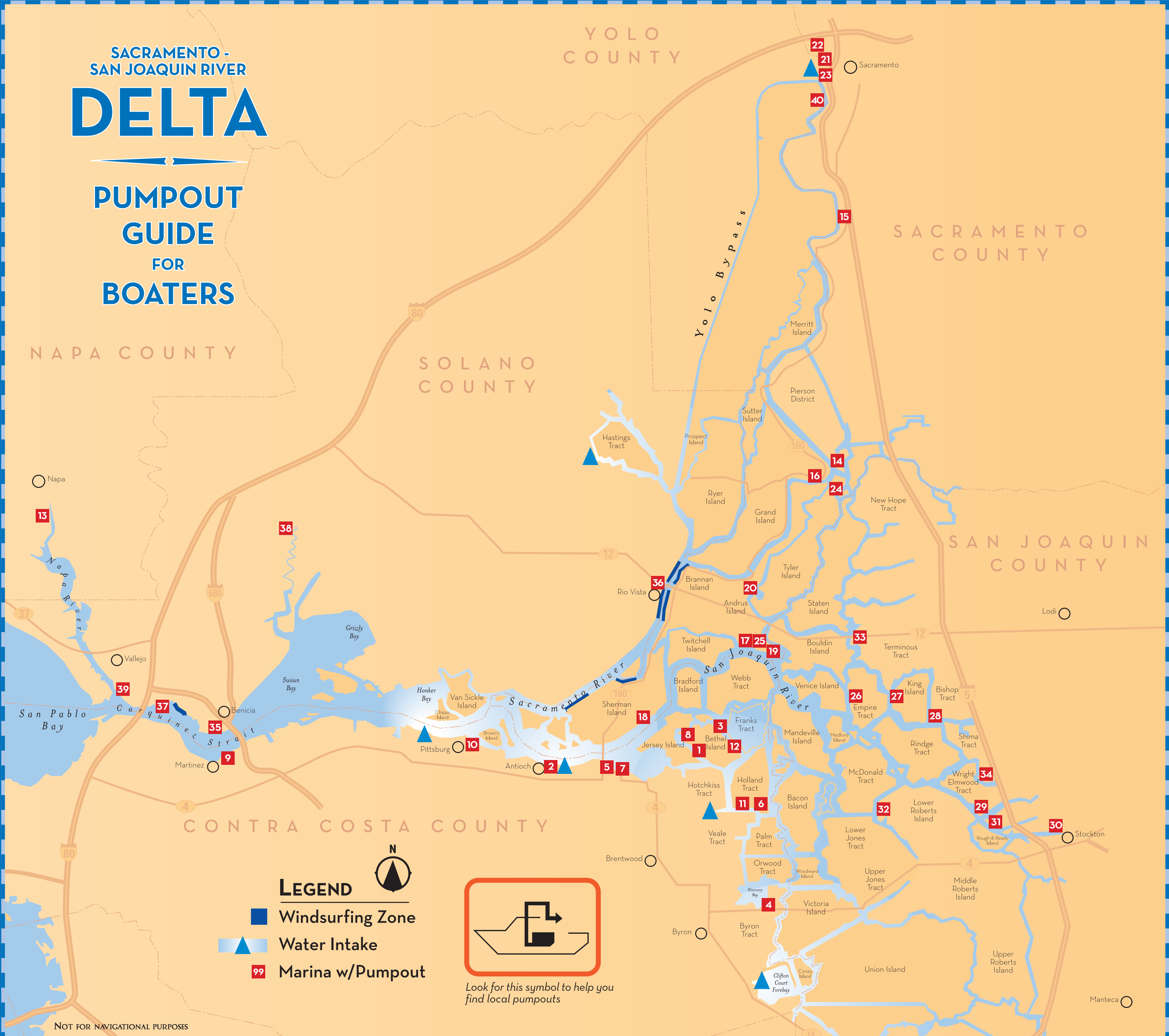
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# SACRAMENTO - SAN JOAQUIN RIVER DELTA

## PUMP-OUT GUIDE FOR BOATERS



# DON'T DUMP... USE THESE PUMPS

MARINA WITH PUMPOUT	LOCATION	PUMPOUT COST	HOURS	PORTA-POTTY PUMPOUT	PUBLIC RESTROOMS	MARINA WITH PUMPOUT	LOCATION	PUMPOUT COST	HOURS	PORTA-POTTY PUMPOUT	PUBLIC RESTROOMS					
<b>CONTRA COSTA COUNTY</b>						<b>SACRAMENTO COUNTY CONTINUED</b>										
1 ANCHOR MARINA	1970 Taylor Rd., Bethel Island, CA 94511	925-684-9148	Fuel dock	Free to tenants	9-6	Yes	Yes	24 WALNUT GROVE MARINA	1400 Old Levee Rd., Walnut Grove, CA 95690	916-776-1181	Fuel dock	\$20	8-5 M-F, 10-4 Sa, winter; 8-5 M-F, 10-4 Sa-Sun, summer	Yes	Yes	
2 ANTIOCH MARINA	5 Marina Plaza, Antioch, CA 94509	925-779-6957	Guest dock & fuel dock	Free	24 hours	Pumpout wand at fuel dock	8-4 M-F, 8-5 SS	Yes	25 WILLOW BERM MARINA	140 Brannan Island Rd., Isleton, CA 95641	916-777-6313	Fuel dock	Free	8:30-4:30	No	Yes
3 BETHEL HARBOR	3405 Harbor Road, Bethel Island, CA 94511	925-684-2141	Service dock	\$5	7-5	No	No	<b>SAN JOAQUIN COUNTY</b>								
4 DISCOVERY BAY YACHT HARBOR	5901 Marina Rd., Discovery Bay, CA 94505	925-634-5928	Fuel dock	Free to tenants Others \$10	24 hours	No	Yes	26 H&H MARINA	15135 West 8 Mile Rd., Stockton, CA 95219	209-951-4634	North dock	Tenants free; others \$5-20	8:30-4 winter 8:30-4:30 summer	No	Yes	
5 DRIFTWOOD MARINA	6338 Bridgehead Rd., Oakley, CA 94561	925-757-9449	Fuel dock	Free	24 hours	No	No	27 KING ISLAND RESORT	11530 West 8 Mile Rd., Stockton, CA 95219	209-951-2188	Fuel dock	Free	8-4 winter 8-5 summer	Yes	Yes	
6 HOLLAND RIVERSIDE MARINA	7000 Holland Tract Rd., Brentwood, CA 94513	925-684-3667	Dock near store	Free to tenants Others \$7	8-6 8-5 Winter	No	Yes	28 PARADISE POINT MARINA	8095 Rio Blanco Rd., Stockton, CA 95219	209-952-1000	Fuel dock	\$25 Moorage customr free	8-4:30 winter Su-Th 7-6, F-Sa 7-6:30 summer 9-4:30 winter	No	Yes	
7 LAURITZEN YACHT HARBOR	115 Lauritzen Lane, Oakley, CA 94561	925-757-1916	Fuel dock	Free to tenants Others \$5	7:30-5 M-Th; 7:30-9 F; 5:30-9 SS Closed Xmas, NewYrs & Thanksgiving	No	Yes	29 RIVER POINT LANDING RESORT	4950 Buckley Cove Way, Stockton, CA 95219	209-951-4144	Fuel dock	\$15	9-5:30 summer 9-4:30 winter	Yes	Yes	
8 MARINER COVE MARINA	1200 Taylor Rd., Bethel Island, CA 94511	925-684-2166	Near fuel dock	\$10	8-6 8-5	No	Yes	30 STOCKTON DOWNTOWN MARINA	445 W. Weber Ave., Ste 128B, Stockton, CA 95203	209-462-4200	Fuel dock	Free	24 hours	No	Yes 8-5	
9 MARTINEZ MARINA	7 N. Court St., Martinez, CA 94553	925-313-0942	Old fuel dock	Free	24 hours	No	Yes	31 STOCKTON YACHT HARBOR	3235 River Dr., Stockton, CA 95204	209-946-9259	Guest dock	\$10	24 hours	No	No	
10 PITTSBURG MARINA	51 Marina Blvd., #E, Pittsburg, CA 94565	925-439-4958	Fuel dock	Free	24 hours	No	Yes	32 TIKI LAGUN RESORT	12988 W. McDonald Rd., Stockton, CA 95206	209-941-8975	Fuel dock	\$5	9-4	No	Yes	
11 LINDQUIST LANDING MARINA	4500 Holland Tract Rd., Knightsen, CA 94548	925-684-3631	Pumpout dock	Free	24 hours	No	Yes	33 TOWER PARK MARINA	14900 West Hwy. 12, Lodi, CA 95242	209-369-1041	Fuel Dock	Free	24 hours	No	Yes	
12 SUGAR BARGE RESORT	1440 Sugar Barge Road, Bethel Island, CA 94511	925-684-8575	Fuel dock	\$10 & up	8-5	Yes	Yes	34 VILLAGE WEST MARINA	6649 Embarcadero Dr., Stockton, CA 95219	209-951-1551	Fuel dock	Free	24 hours	No	Yes	
<b>NAPA COUNTY</b>						<b>SOLANO COUNTY</b>										
13 NAPA VALLEY MARINA	1200 Milton Road, Napa, CA 94559	707-252-8011	Fuel dock	\$5	8-5 M-F 9-5 Sat, 9-4 Sun	No	Yes	35 BENICIA MARINA	266 East B St., Benicia, CA 94510	707-745-2628	Fuel dock	Free	24 hours	No	No	
<b>SACRAMENTO COUNTY</b>						<b>YOLO COUNTY</b>										
14 THE BOATHOUSE MARINA	13900 River Rd., Locke, CA 95690	916-776-1204	Dock 1	Free	8:30-5:00	No	No	40 SHERWOOD HARBOR MARINA	3505 South River Rd., West Sacramento, CA 95691	916-371-3471	Fuel dock	\$10	24 hours	No	Yes	
15 CLIFF'S MARINA	8651 River Rd., Sacramento, CA 95832	916-665-1611	Fuel dock	\$20-40	9-4 W-Sun winter 9-5 summer	No	Yes	<b>MOBILE PUMPOUT SERVICE</b>								
16 DAGMARS LANDING	14178 Highway 160, Walnut Grove, CA 95690	916-776-1961	Public dock	Free to tenants others \$20	By appt.	No	No	HAPPY AS A CLAM ENTERPRISES	805-674-5820	Call for quote and appt.	Varies	By appt				
17 SACRAMENTO DELTA BAY MARINA	922 W. Brannan Island Rd., Isleton, CA 95641	916-777-4153	Guest dock	\$15	8:30-5:00 summer; call for winter hours	No	Yes	SEPTIC BROTHERS MARINE PUMP-OUT	209-329-7771	\$25-60	Dawn-Dusk					
18 EDDO'S HARBOR	19530 Sherman Island E. Levee Rd., Rio Vista, CA 94571	925-757-5314	Fuel dock	Free	9:00-5:30	No	Yes									
19 KORTH'S PIRATES' LAIR MARINA	169 W. Brannan Island Rd., Isleton, CA 95641	916-777-6464	Fuel dock	Free to tenants others \$10	7:00-5:00	Use pumpout	Yes									
20 OXBOW MARINA	100 Oxbow Marina Dr., Isleton, CA 95641	916-777-6060	Fuel dock	Free	24 hours	Yes	Yes									
21 RIVERBANK MARINA	1371 Garden Hwy., #200, Sacramento, CA 95832	916-922-0720	Between C&D Gates	Free	7:00-6:00, Public, 24 hours, Tenants	Yes	No									
22 RIVERVIEW MARINA	1801 Garden Hwy., Sacramento, CA 95833	916-925-4100	Guest dock	Free	10:00-2:00PM M-W 9:00-5:00 F-Sun	No	No									
23 SACRAMENTO MARINA	2710 Ramp Way, Sacramento, CA 95818	916-808-5712	Fuel dock	Free	24 hours	No	Yes									

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