

CITY OF SANTA BARBARA WATERFRONT DEPARTMENT

MEMORANDUM

Date: April 19, 2012
To: Harbor Commissioners
From: Scott Riedman, Waterfront Director
Subject: **Annual Review—Clean Marina Program**

RECOMMENDATION:

That Harbor Commission review and consider an annual report on the Department's Clean Marina Program

BACKGROUND:

City Council adopted a Clean Marina Program in 2002, the goal of which is to achieve and maintain, via feasible means and alternatives, best management practices and a clean harbor environment for people, aquatic life and seabirds. It includes six elements:

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|------------------------------|--|
| 1. Facilities for Boaters | 4. Pollution Prevention and Abatement Projects |
| 2. Water Quality | 5. Education |
| 3. Best Management Practices | 6. Compliance and Enforcement |

To track its effectiveness, the Harbor Commission annually reviews the Clean Marina Program.

DISCUSSION:

1. **Facilities for Boaters**

a. **Sewage Pump-Outs**

The harbor's five sewage pump-out stations accommodate boaters and reduce the likelihood of sewage spills. Sewage pump-out use in FY '11 (6,433 minutes) was slightly above FY '10 (6,287 minutes). In addition, some 6,500 gallons (433 minutes) was pumped by Mobius Rigging's mobile pump-out service. In total, all pump-outs removed approximately 100,000 gallons of vessel sewage in FY '11. Factors contributing to modest pump-out use in FY '11 were the ongoing economic downturn and reduced slip availability due to Marian One construction, limiting visitor occupancy days to 30% less than FY '11 projections.

Sewage Pump-out Use (In Minutes)

Fiscal Year	Marina 1 East*	Marina 1 West	Fuel Dock	Launch Ramp	Annual Total
FY '03	5,165	1,253	1,421	73	7,912
FY '04	4,957	1,069	1,310	135	7,471
FY '05	4,758	758	2,183	3	7,764
FY '06	4,384	1,657	2,608	362	9,011
FY '07	3,796	1,269	1,666	27	6,785
FY '08	3,834	1,172	2,207	15	7,228
FY '09	3,690	976	1,464	252	6,382
FY '10	3,876	896	1,336	179	6,287
FY '11	4,128	884	1,204	217	6,433

* Two stations, P/Q finger and R/S finger

b. Bilge-Water Pump-Out

A bilge-water pump-out at the Fuel Dock can accept straight bilge water, bilge water with diesel or bilge water with oil. It cannot accept gasoline, which must be disposed of at a Household Hazardous Waste Facility, or “hot loads” with contaminants like soap. The facility separates oil from water, storing oil in a waste-oil container while sending residual water into the City’s sewer system. The pump-out operates at about five gallons per minute.

Bilge-Water Pump-Out Use (In Minutes)

<u>Year</u>	<u>Minutes</u>	<u>Gallons</u>
2003	1,086	5,430
2004	1,602	8,010
2005	1,416	7,080
2006	1,353	6,765
2007	1,546	7,730
2008	N/A	N/A
2009	629	3,145
2010	948	4,740
2011	813	4,065

c. Debris Nets

Over 40 debris scoop nets—found on each finger dock—serve boaters wishing to remove light debris from the harbor. Some nets disappear or rot out each year. In 2011, staff replaced six nets with poles.

<u>Year</u>	<u>Nets</u>
2008	15
2009	7
2010	8
2011	6

d. Waste-Oil Disposal

The Department operates waste-oil disposal stations at the Fuel Dock, Marina 2 and Marina 4. These free, key-card-operated facilities also accept oil filters, anti-freeze and oil-absorbent pads. These stations received 7,617 gallons of waste oil in FY '11. This is significantly more than reported in previous years, due to possible omission of one or more stations. This tabulation should serve as accurate baseline data going forward.

e. Marine Battery Collection

The Department provides a marine battery collection bin on the City Pier near the fuel dock. In 2009, staff began estimating the number of used batteries deposited at the station, which Interstate Batteries hauls away for free.

<u>Year</u>	<u>Batteries recycled</u>
FY '09	450
FY '10	350
FY '11	300

f. Fishing Line Recycling

Three new recycling stations (including educational signs) were replaced in FY '11, one at the corner of Stearns Wharf Bait and Tackle, one on the shoreward finger west of Sea Center and one on the deck at the Sea Landing building.

2. Water Quality

a. Monthly “Dry Season” Harbor Water Quality Monitoring

In FY 2011, seven stations were tested for three bacterial indicators between May and October. Three samples exceeded state standards for body contact (Attachment 1), compared to zero in FY '10 and two in FY '09. A map of harbor sampling sites is included as Attachment 2. Two of the three “upsets” were at Station 11, near the launch ramp, an area characterized by weak circulation. The other upset, at Station 10 in April 2011 may have been from bird droppings on new, unoccupied “O” finger docks during the Marina One reconstruction project.

b. East Beach Water Quality Monitoring

Coastal Commission permit conditions for the East Beach Mooring Program require water quality testing in the vicinity of the moorings twice a year for primary pollutants like heavy metals and three times a year for bacteria. Tests remain consistent with baseline tests undertaken in 2006, indicating good water quality in the project area. Results of the FY '11 bacteria sampling for the East Beach Mooring Area are included as Attachment 3. A map of the sampling sites is included as Attachment 4.

c. Dissolved Oxygen Tests

The Department tests dissolved oxygen (D/O) levels in the harbor to predict and mitigate low-oxygen events that cause fish and invertebrate die-offs. Eleven D/O tests were conducted in 2011. Results (Attachment 5) indicate mostly good levels (five milligrams of oxygen per liter of water) except for especially poor levels in spring of 2011. This corresponds to the presence of seasonal algal blooms and significant fish die-offs in Redondo Beach and Ventura. When D/O levels are dramatically or chronically low, Department staff posts notices on marina gates so crab and lobster fishermen who store their catch in receivers can move them outside the harbor to avoid “dead loss.” Fishermen are encouraged to alert the Department if they experience unusually high dead-loss rates, so staff can test D/O levels immediately.

d. Dry Dock Case Closure

From the 1980s to late 2010, the City leased space for an over-water haul-out facility (“dry dock”) at the end of “F” finger in Marina One. Responding to a local boater’s complaint in 2002 regarding illegal marine-battery dumping and pollution of harbor sediments, the state’s Regional Water Quality Control Board (RWQCB) oversaw dive surveys and sediment and biological sampling at the following locations: 1) beneath the dry dock; 2) beneath the dry dock’s former Marina One location between “K” and “M” fingers; 3) beneath the City Pier and fuel dock; and 4) near a storm drain outlet along the harbor’s western seawall.

Following removal of six marine batteries from the seafloor, removal of the dry dock in 2010, diversion of Harbor Marine Works’ wash-down water to the City’s sewer system (preventing discharge into the storm drain), and determination that average harbor-wide sediment conditions do not have a toxic effect on benthic organisms, the RWQCB has moved to close this case file. Waterfront staff, in turn, has assured RWQCB staff that the City has never dredged beneath the former dry dock site and has no plans to do so in the future (slips will occupy the facility’s former location).

RWQCB staff released a “Plan for No Further Action” on March 14, 2012, initiating a 30-day comment period (Attachment 6) on its intention to close the case file. Waterfront staff has spoken with Heal the Ocean and Santa Barbara Channel Keeper, explaining background and details of the case. The RWQCB is tentatively scheduled to consider closing the case file at its May 3rd meeting in San Luis Obispo.

e. Alternative Bottom Paints

In response to studies indicating elevated copper levels in many Southern California harbors, testing of alternative anti-fouling paints (AFPs) has increased in recent years. In an effort to advance applied knowledge of non-copper AFPs, Harbor Patrol has tested several alternatives over the past four years:

- In 2008, a ceramic epoxy paint was applied to the aluminum hull of Patrol Boat #3. Designed to allow marine growth to slough off a slick hull surface, the test

proved unsuccessful at deterring marine growth, even with specified hull cleanings (every three weeks).

- In June 2009, a zinc-based biocide was applied to Patrol Boat #3. Staff monitored its performance monthly with a diver and hauled out the vessel quarterly to visually inspect the bottom paint. In January, 2011 and November 2011 the bottom was repainted. The zinc-based AFP has so far proved a suitable substitute for copper-based paint.
- In September 2011, an AFP that combines additives of zinc and Ecomea, a non-copper biocide, was applied to Patrol Boat #2. In March 2012, bottom growth appeared typical, though two areas showed signs of wear. The hull will be re-inspected at the end of April.

Meanwhile, more alternative AFPs continue to hit the market, including some that remain copper-heavy, but encapsulate the copper in an epoxy resin designed to reduce leaching into the marine environment. Approved in other states such as Florida, this product awaits certification in California. Simultaneously, however, state Senate Bill 623 is pending in the Assembly's Appropriations Committee, awaiting action in June. Modeled after a law passed in Washington State, SB 623 would ban the manufacture, sale or distribution of copper-based AFPs in California after January 1, 2015.

f. **Clean Marina Program**

The Clean Marina Program is a multi-state, industry-sponsored certification program designed to reflect compliance with strict environmental and best-management practices in marinas to prevent ocean pollution. The Program has certified 113 marinas since 2004. Santa Barbara Harbor was certified in July 2006 and recertified in June 2011. In addition, the Harbor Operations Manager served as examiner for Morro Bay's Clean Marina recertification in December 2011.

3. **Best Management Practices (BMPs)**

a. **Storm Water Pollution Prevention Plan**

The Department complies with federal Clean Water Act standards through its Stormwater Pollution Prevention Plan (SWPPP), whose goal is to prevent pollution discharges into the harbor. The SWPPP includes a description of the entire Waterfront and potential sources of stormwater discharge, plus BMPs to maintain the area such that stormwater does not become contaminated as it flows off Waterfront property.

Visual observations are made quarterly and storm runoff water samples (mostly from parking lots) are captured by Science Application International Corporation (SAIC) during two storm events per year. Results are reported annually to the RWQCB. No significant illicit discharges in were observed FY '11.

b. Storm Water Management Plan

In 2009, the City completed a state-mandated Stormwater Management Plan (SWMP), which includes several Minimum Control Measures (*MCMs*) (e.g. public outreach, illicit discharge detection and BMPs) to help maintain good water quality in our harbor.

As part of the City's overall SWMP, the Waterfront developed MCMs specific to its operations. To date, the Waterfront is compliant and current with the SWMP and will continue to work closely with the RWQCB to modify the document as appropriate.

c. Staff and Contractor BMPs

City staff and City contractors observe BMPs during maintenance, repair and construction work at the Waterfront:

- Vacuuming debris on decks or roadways during work
- Power-washing and/or scrubbing roadways and parking lots for oil and stain removal (recycled or deposited into sewer system)
- Monthly trash-enclosure cleaning at Waterfront Center Building
- Placing booms around projects sites near the water
- Placing crew in skiffs in the water to scoop debris
- Monitoring beaches to ensure all debris is retrieved
- Removing any leaking equipment from service

d. Oil Absorbent Pad Distribution

Funded via the CalRecycle grant noted earlier, the Department continues distributing recyclable absorbent bilge pads, which boaters use to soak up oily bilges and prevent leaks while fueling. The number of pads distributed in FY '11 is up from previous years, indicative of spill awareness and prudent boater practices:

<u>Year</u>	<u>Pads Distributed</u>
FY '03	15,000
FY '04	18,000
FY '05	20,000
FY '06	17,000
FY '07	14,400
FY '08	14,000
FY '09	17,500
FY '10	17,500
FY '11	21,000

e. Bird Protection

Due to fisherman/bird interactions on Stearns Wharf, staff has:

- Placed bird-protection signs at the breakwater, rock groin and on Stearns Wharf
- Inlaid permanent signs on piling “camels,” asking anglers to not feed birds
- Inlaid permanent signs on picnic tables, asking patrons to not feed the birds
- Inlaid permanent restaurant signs on tables asking patrons to not feed birds
- Increased patrols on Stearns Wharf and worked with owner of Stearns Wharf Bait and Tackle educating fishermen
- Patrol rescued 29 birds in FY ‘11, four more than projected

4. Pollution Prevention and Abatement Projects

a. “Salad Boat”

A contractor working from the dock and, occasionally, from a 13’ skiff, extracts litter and debris from the harbor on alternate Saturdays and during storms or event-related cleanups. This effort, augments maintenance staff’s routine efforts, improves the harbor’s appearance, encourages a clean-ocean environment and helps maintain access to and from boat slips. West-facing docks continue to be primary collecting spots for debris. Others include Area A (see map, Attachment 7) in the harbor’s northwest corner where a natural eddy and storm drain outlet create debris problems, plus Area B, where storm drains line the north side of the interior breakwater and Area C, another natural debris-collection point near the small-boat launch ramp. Debris typically includes aluminum cans, newspaper, buckets, kelp, tree limbs, plastic bags, tennis balls, cigarettes, snack wrappers and Styrofoam cups.

b. Abandoned Watercraft Abatement Grants and Vessel Turn-In Grants

The Waterfront Department disposed of 10 beached boats in FY ‘11 through the Department of Boating and Waterways’ (DBW’s) Abandoned Watercraft Abatement Fund (AWAF), which pays 90% of removal costs. A current \$41,500 AWAF grant with \$18,000 remaining expires July 1, 2013.

<u>Year</u>	<u>Abandoned Boats</u>
FY ‘06	14
FY ‘07	10
FY ‘08	13
FY ‘09	6
FY ‘10	15
FY ‘11	10

The City has participated in DBW’s two-year-old Vessel Turn-In Program (VTIP), allowing the voluntary surrender of vessels that would otherwise be abandoned. Operating with annual \$8,000 grants, the Waterfront Department has disposed of 11 vessels under this program over the past two years. Due to the program’s success, the Department will apply for a \$20,000 VTIP grant to last through June 30, 2013.

c. **East Beach Mooring Permit Program**

In 2006, the City established 46 permitted moorings east of Stearns Wharf. Since then, it has conducted several lotteries for the purpose of assigning permits. Owing to termination and/or voluntary relinquishment of mooring permits during the past year, the current number of active permits is 25. Moreover, out of 45 applicants in last year's lottery, only three resulted in permit assignments. Many applicants dropped out during the sign-up process. Others dropped out during the prove-up process, during which individuals provisionally awarded mooring permits are required (within 90 days) to have a mooring installed, pay their initial \$250 annual permit fee and establish a vessel on the mooring in order to finalize the assignment.

A distributor/installer of Seaflex moorings left the program in August, 2011, due to disagreements with clients over payments, repairs and the integrity of the gear. Although inspectors qualified to (re)install or repair Seaflex moorings remain on the City's list of Qualified Mooring Inspectors, staff does not intend to approve new Seaflex installations at this time, as nine of 11 Seaflex-style moorings have failed.

In February 2012, City Council amended its mooring policy, requiring that a non-refundable \$50 Application Fee accompany each mooring permit application. This will limit the number of speculators participating in lotteries and applying for permits, and reduce staff time spent on applications that don't result in issuance of permits.

d. **Operation Clean Sweep**

Operation Clean Sweep, a volunteer seafloor cleanup program, has removed 18,000 pounds of debris from the harbor during five annual one-day events. Typical debris includes barbecues, bicycles, plastic barrels, boat propellers, outboard engines and an occasional marine battery. This year's event (May 5th) will target fingers E through H in Marina One. Staff expects 45 volunteer divers and dock workers to participate.

5. **Education**

Staff disseminates Clean Marina information via *Docklines* and *The Log* newspaper. It also distributes Clean Marina literature from California Sea Grant, the California Coastal Commission, DBW and the U.S. Coast Guard. Harbor Patrol educates boaters in the field, distributing "pollution packets" describing BMPs for clean boating and boat maintenance. All Harbor Patrol Officers are trained in BMPs for underwater hull cleaning that helps them monitor hull-scrubbing operations in the harbor, and all but one (new hire) is current with annual "Hazwopper" oil-spill response training.

6. **Compliance and Enforcement**

a. Marine Sanitation Device (MSD) Inspections

Dye-tabling Marine Sanitation Devices (MSDs—"holding tanks") is required for vessels visiting Santa Barbara Harbor and for new slip assignments and new live-aboard assignments. MSD inspections remind boaters of the Department's commitment to preventing sewage discharges and help educate them about Clean Marina standards. The number of MSD inspections in FY '11 reflects reduced visitor days.

<u>Year</u>	<u>MSD Inspections</u>
FY '03	1,230
FY '04	1,280
FY '05	1,199
FY '06	1,259
FY '07	1,370
FY '08	1,160
FY '09	992
FY '10	837
FY' 11	770

b. Discharge Violations

There were 14 known pollution violations in FY '11, down from 19 the previous year. Citations were for discharge of engine degreaser and discharge of rotten bait. The disproportionate ratio of warnings to citations reflects the Department's emphasis on education as its primary enforcement tool.

<u>Year</u>	<u>Total</u>	<u>Warnings</u>	<u>Cites</u>
FY '05	32	29	3
FY '06	19	16	3
FY '07	23	19	3
FY '08	22	18	4
FY '09	14	13	1
FY '10	19	16	3
FY' 11	14	12	2

COST SUMMARY:

FY 2011 PROGRAM COSTS

Storm Water Pollution Prevention Plan	\$6,700
Dry Season Water Quality Testing	\$1,456
Salad Boat	\$7,000
** Oil-Absorbent Pads	\$11,875
** Abandoned Vessel Disposal (90% reimbursed)	\$17,600
East Beach Water Quality Testing	\$4,787
Replace Dockside Debris Nets	\$1,600
** Hazmat Turn-In Disposal	\$6,555
** Used-Oil Disposal	\$12,500
Total Annualized Program Cost:	\$70,073
** Grant Funded/Reimbursed Costs	\$46,962
<u>FY '11 Adjusted Clean Marina Program Cost</u>	<u>\$ 21,543</u>

ANNUAL CLEAN MARINA PROGRAM COSTS

FY 2003	\$ 40,647
FY 2004	\$ 25,476
FY 2005	\$ 27,627
FY 2006	\$ 32,400
FY 2007	\$ 33,770
FY 2008	\$ 25,900
FY 2009	\$ 25,163
FY 2010	\$ 21,792
FY 2011	\$ 21,543

CONCLUSION:

The Clean Marina Program continues to be an important contribution to the Department's overall mission. It highlights the importance of maintaining a clean ocean environment for those who visit, recreate or work in Santa Barbara Harbor, as well as the marine and avian life that depend on it to thrive.

Attachments:

1. Water Quality Sampling Results—Harbor
2. Water Quality Sampling Map—Harbor
3. Water Quality Sampling Results—East Beach Mooring Area
4. Water Quality Sampling Map— East Beach Mooring Area
5. Dissolved Oxygen Sampling Results—Harbor
6. RWQCB Public Notice of Plan for No Further Action
7. Salad Boat Debris Cleanup Map
8. Salad Boat Annual Report

Prepared by: Mick Kronman, Harbor Operations Manager