

CITY OF SANTA BARBARA WATERFRONT DEPARTMENT

MEMORANDUM

Date: March 19, 2009
To: Harbor Commissioners
From: John N. Bridley, 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, 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 progress and 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 '08 (7,228 minutes) was very close to the six-year average for these facilities (7,695 minutes). Other notes:

- Use of the launch-ramp pump-out remains quite minimal, dropping to a mere 15 minutes in FY '08. Staff will keep this facility operational, but will use it for spare parts on an emergency basis, to replace parts in the harbor's other pump-outs.
- *Mobius Rigging*, operated by harbor resident Jon Payne, recently began a sewage pump-out service. Operating on Mondays and by appointment, the service currently pumps an average of 400 gallons of sewage per month.

Following is a five-year summary of pump-out use:

Location	FY '03	FY '04	FY '05	FY '06	FY '07	FY '08
*M 1 East	5,165 min	4,957 min	4,758 min	4,384 min	3,796 min	3,834 min
M 1 West	1,253 min	1,069 min	758 min	1,657 min	1,269 min	1,172 min
Fuel Dock	1,421 min	1,310 min	2,183 min	2,608 min	1,666 min	2,207 min
Launch Ramp	73 min	135 min	3 min	362 min	27 min	15 min
Annual Total	7,912 min	7,471 min	7,764 min	9,011 min	6,785 min	7,228 min

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

b. Bilge-Water Pump-Out

A bilge-water pump-out facility has operated at the Fuel Dock since 2003. Following is a table showing its use

FY '03	FY '04	FY '05	FY '06	FY '07	FY '08
1,086 min.	1,602 min.	1,416 min.	1,353 min.	1,546 min.	unavailable

Use remained steady through FY '08, though a metering malfunction prevented exact calculations. A new meter was recently installed, which should offer precise measurements for the coming years. Staff continues to believe that using the bilge pump-out helps keep petroleum sheens out of the harbor.

c. Debris Nets, Waste Oil Disposal Stations, Fishing Line Recycle Containers

The 40+ debris scoop nets (available on each finger in all marinas), installed in FY '05, continue to serve boaters wishing to remove light debris from the harbor. Some nets disappear or rot out each year. In FY '08 staff replaced 15 of the 8'-long net poles and about 15 nets—numbers slightly higher than FY '07 totals.

d. Waste Oil Disposal /Marine Battery Collection/Fishing Line Recycling

The Department continues to operate Waste Oil Disposal Stations at the Fuel Dock, Marina 2 and Marina 4. These facilities also collect oil filters, anti-freeze and oil-absorbent pads. In 2008, boaters deposited 3,300 gallons of used oil at these stations.

The Department also provides a marine battery collection and recycle bin at the fuel dock. Two fishing line recycle containers remain in steady use at Stearns Wharf, with a

third to be added soon. Sea Landing commingles fishing line with other plastics. Reducing the amount of fishing line entering the harbor or nearshore waters helps protect mammals and birds from entanglement.

Note: On July 1, 2008, the Department inherited a \$23,000 (annual) Used Oil Block Grant from the City's Environmental Services Division. The grant was previously utilized by the Community Environmental Council, which relinquished it when redirecting its mission away from used-oil recycling to renewable energy. The grant helps pay costs related to used-oil disposal, absorbent bilge pads and hosting a hazmat turn-in event that receives petroleum-based products.

2. Water Quality

a. Monthly "Dry Season" Harbor Water Quality Monitoring

Results from FY '08 indicate that seven stations tested for three bacterial indicators over five months (May through September) produced 105 water quality samples, none of which exceeded state standards for body contact (Attachment 1). This compares to two samples that exceeded standards in FY '07. A map of the sampling sites is included as Attachment 2.

b. East Beach Water Quality Monitoring

Coastal Commission permit conditions for the East Beach Mooring Program require the City to test water quality in the vicinity of the moorings twice a year for primary pollutants like heavy metals and three times a year for bacteria. Baseline samples were taken in 2006 to establish a pre-project water quality profile. Subsequent tests have been consistent with the baseline tests, indicating good water quality in the project area. Results of the FY '08 bacteria sampling in the area are included as Attachment 3 to this report. A map of the sampling sites is included as Attachment 4.

c. Dissolved Oxygen Tests

The Department tests dissolved oxygen levels in the harbor in order to predict and mitigate low-oxygen events that can cause fish and invertebrate die-offs in the harbor. Ten tests for dissolved oxygen (D/O) were conducted in FY '08. Results (Attachment 5) indicate lower levels during summer (7/30/07 results) and during periods of algal blooms (11/1/07 results). Although levels at times fell below the low-end optimal base for maintaining healthy marine life (five milligrams per liter), no fish die-offs were reported. Staff will continue testing D/O levels. If levels are dramatically or chronically low, notices are posted on marina gates, so crab and lobster fishermen who store their catch in receivers in the harbor 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. Alternative Hull Paints

In response to studies indicating elevated copper levels in many Southern California harbors, statewide research and testing of alternative hull paints has increased dramatically. In Santa Barbara Harbor, three tests are underway:

California Sea Grant, in partnership with UCSB, has placed narrow, fiberglass panels painted with various coatings at several harbor locations. Although the focus of the test is to learn which coatings best deter invasive aquatic species, the results will also indicate which non-copper hull coating might work best. The tests are ongoing.

Santa Barbara Channelkeeper coated the hull of its new boat with four bands of test paints and one copper based paint in late 2007. All four bands contained Ecomea, a non-metallic anti-fouling biocide that degrades rapidly in the marine environment and whose use is permitted and monitored under a research program of the state's Department of Pesticide Regulation (DPR). The boat was hauled for its one-year inspection in December, 2008. Large differences were evident between formulations on the un-scrubbed hull. Some paint surfaces were merely slimed. Others were covered with tube worms. In three cases, hull paints were doing much better than the traditional copper-based paint. Channelkeeper will remain in the study for another year, testing additional formulations.

Santa Barbara Harbor Patrol applied a non-copper ceramic epoxy paint to the hull of Patrol Boat #3 in June, 2008, designed to allow marine growth to slough off a "slick" hull surface. The test proved unsuccessful, even with specified hull cleanings (every three weeks). The Department will apply a different non-copper coating this spring, possibly a zinc-based paint that has proved successful in San Diego trials.

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 discharge of pollutants into the harbor. The SWPPP includes a description of the entire Waterfront and potential sources of stormwater discharge, as well as BMPs to maintain the area such that stormwater does not become contaminated as it flows off Waterfront property.

b. Storm Water Management Plan--Biodegradable Soaps

The City recently completed a state-mandated Stormwater Management Plan (SWMP), which includes a number of Minimum Control Measures (MCMs—public outreach, illicit discharge detection and BMPs) to help maintain good water quality in our harbor. While the Department has for years encouraged boaters to use bio-degradable soaps for washing boats, the state required it as a condition of approval for the SWMP. Business Activity Permits and Marina Rules and Regulations have been amended to reflect this

requirement. Biodegradable soaps are readily available at most chandleries, boating outlets, auto shops and grocery stores.

On a similar note, the Department recently sent a support letter for Channelkeeper's grant request to the Boat/US Foundation, for publication and distribution of literature to local boaters about the benefits of using biodegradable soaps. If awarded the grant, Channelkeeper will partner with the Department on this public education effort.

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

Also, Stearns Wharf maintenance staff has developed an Operation Plan/Checklist to monitor and document activities that prevent ocean pollution.

d. Bird Protection

Due to chronic fisherman/bird interactions on Stearns Wharf (based primarily on wildlife behavior), staff undertook the following efforts to mitigate these problems in 2008.

- 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
- Permanent restaurant signs on tables asking patrons to not feed birds; and
- Increased patrols on Stearns Wharf

In addition, Frank Drew, owner of Stearns Wharf Bait and Tackle, continues working with fishermen to reduce interactions with seabirds.

f. Oil Absorbent Pad Distribution

Supplied free via the Used-Oil Block Grant noted above, the Department continues distributing recyclable absorbent bilge pads, which boaters use to soak up oily bilges and prevent leaks while fueling. The program remains very successful. The number of pads distributed in FY '08 is consistent with previous years:

<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

4. Pollution Prevention and Abatement Projects

a. "Salad Boat"

A contractor working from the dock and a 13' skiff extracts litter and debris from the harbor on Saturdays and during storm or event-related cleanups. In addition to standard areas that trap debris (see summary, Attachment 6, and area map, Attachment 7), a unique event occurred in October, 2007, when high winds and a south swell required the removal of 23,000 pounds of kelp from the harbor, freeing "land locked" boats from their slips.

Staff believes the debris-cleanup effort, augmented by efforts of maintenance staff, remains vital to the Clean Marina Program. It improves the harbor's appearance, and helps maintain access to and from boat slips, as well as a clean ocean environment. That said, the Department will amend its Salad Boat contract to require clean-ups bi-weekly instead of weekly, beginning in July, 2009. This experimental approach should result in an annual savings of \$7,000, unless additional cleanups are required.

b. Department of Boating and Waterways (DBW) Grant

The Waterfront Department continues to obtain grants from DBW's Abandoned Watercraft Abatement Fund to pay 90% of the cost of removing sunken, abandoned, or beached boats. A new grant is in place for \$15,000, in addition to \$7,000 that remains from a previous grant, to remove boats through June 30, 2008. AWAFF grant money helped offset the \$12,583 cost of removing 13 beached or abandoned boats in 2008 (many more were removed from the beach or re-floated by their owners).

c. East Beach Mooring Permit Program

In an effort to reduce vessel groundings on East Beach, City Council in 2006 approved a plan to establish 46 permitted moorings east of Stearns Wharf. After three public lotteries, (and considering drop-outs from the program and the time it takes to assign and deploy new moorings), 37 are currently assigned or provisionally assigned. Meanwhile, staff is working with mooring inspectors to identify program inadequacies (improving ground tackle specifications) and inefficiencies (out-of-sync permit-renewal and mooring inspection dates) to improve operation of the mooring area.

d. “Operation Clean Sweep”

After removing two tons of seafloor junk apiece from Marinas 3 and 4 the past two years, 45 volunteer divers and dock workers targeted Marina 2 in May, 2008. Again, they brought up over two tons of debris, including crab traps, tools, pipe sections, dishes, barbecues, plastic barrels, boat propellers, an outboard engine and three marine batteries. In May, 2009, Operation Clean sweep will enter its fourth year, targeting the harbor’s fishing-boat docks before moving on to Marina One next year.

5. Education

Staff continues to disseminate information about the Clean Marina Program via articles in *Docklines* (“Clean Marina Corner”) and “*The Log*” newspaper, plus distribution of Clean Marina literature from California Sea Grant, California Coastal Commission, DBW, the City of Santa Barbara and the U.S. Coast Guard. Harbor Patrol educates boaters in the field and distributes “pollution packets” describing BMPs for clean boating and boat maintenance. Finally, all Harbor Patrol Officers are now trained in BMPs for underwater hull scrubbing, with five-year certifications. This training helps officers monitor hull-scrubbing operations in the field. The Harbor Operations Manager also serves as examiner during California Clean Marina certifications in other local harbors.

6. Compliance and Enforcement

a. Marine Sanitation Device (MSD) Inspections

Dye-tabling of Marine Sanitation Devices (MSDs—“holding tanks”) is required for all vessels visiting Santa Barbara Harbor and for new slip assignments and new live-aboard assignments. MSD inspections remind boaters that the Department is serious about preventing sewage discharges and helps educate them about Clean Marina standards. The number of MSD inspections in FY '08 was similar to previous years.

YEAR	MSD INSPECTIONS
FY '03	1,230
FY '04	1,280
FY '05	1,199
FY '06	1,259
FY '07	1,370
FY '08	1,160

b. Discharge Violations

There were 22 known pollution incidents in FY '08, the same number as FY '07. Of the 22 in FY '08, which ranged from paint chips in the water to accidental fuel leaks, four resulted in citations, including one for an accidental sewage discharge. The disproportionate number of warnings versus citations continues to reflect the Department’s emphasis on education as a primary an enforcement tool.

YEAR	TOTAL	WARNINGS	CITES
FY '05	32	29	3
FY '06	19	16	3
FY '07	23	19	3
FY '08	22	18	4

COST SUMMARY/CONCLUSION

FY '08 Program Costs:

Storm Water Pollution Prevention Plan	\$6,700
Dry Season Water Quality Testing	\$2,600
Salad Boat	\$15,000
**Salad Boat Change Order	\$14,000
**Oil-absorbent pads	\$7,800
** Abandoned Watercraft Disposal	\$11,340
**East Beach Water Quality Testing	\$8,000
Replace dockside debris nets	\$1,500
Operation Clean Sweep	\$100
**Hazmat turn-in disposal	\$5,300
** Used oil disposal	\$20,600
Total FY '08 Program Cost:	\$94,200
**Reimbursable or One-Time Costs	\$68,300
<u>Total FY '08 Adjusted Clean Marina Program Cost</u>	<u>\$25,900</u>

Ongoing (Adjusted) Clean Marina Program Costs

FY '03	\$40,647
FY '04	\$25,476
FY '05	\$27,627
FY '06	\$32,400
FY '07	\$33,770
FY '08	\$25,900

The Clean Marina Program continues to be an important contribution to the Department's overall mission. Similar to programs statewide, it highlights the importance of maintaining a clean ocean environment for those who visit, recreate or work in Santa Barbara Harbor.

Attachments:

1. Water Quality Sampling Results—Harbor
2. Water Quality Sampling Map—Harbor
3. Bacteria sampling—Mooring Area
4. Water Quality Sampling Map—Mooring Area
5. Dissolved Oxygen Sampling Results— Harbor
6. “Salad Boat” Contractor Annual Summary
7. “Salad Boat” Harbor Map

Prepared by: Mick Kronman, Harbor Operations Manager