

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF DECEMBER 6, 2012
Prepared on November 14, 2012

ITEM NUMBER: 11

SUBJECT: Closure of Santa Barbara Harbor Battery Disposal Site and Discussion of Related Harbor Sediment Issues; Site Cleanup Program

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KEY INFORMATION

Discharger: City of Santa Barbara, Waterfront Department
Location: Santa Barbara Harbor, Santa Barbara, Santa Barbara County
Discharge Type: Marine Battery Disposal

This Action: Information/Discussion

SUMMARY

Central Coast Water Board staff closed a marine battery cleanup site in the Santa Barbara Harbor (Harbor) in November 2012. Staff is presenting information on this closure because we received comments stating that the battery cleanup case should not be closed, and there are other related sediment issues in the Harbor such as contaminants from boat bottom paint. Staff acknowledges the other sediment issues; however, based on current information, the relatively low risk associated with these sediment issues, combined with the elimination of the sources of these sediments warrants no further action.

Closure is warranted for this case where marine batteries were removed from the bottom of the Harbor in 2003 (Attachment 1, site map with sampling locations). As part of the marine battery investigation, bottom sediment samples were collected in 2002 below a dry dock operation. Some of the samples beneath the dry dock contained concentrations of metals and organotin¹ compounds that exceeded sediment quality/concentration guidelines, and thus indicated a potential for adverse impacts to biological communities. However, based on additional data², this sediment is limited in areal extent and related to anti-fouling bottom paint debris that accumulated below the dry dock during its operational history. Due to cessation of the dry dock

¹ Organotin: An organic compound with one or more tin atoms in its molecules, used as a pesticide and used in marine paints, toxic in the food chain.

² *Environmental Condition of Water, Sediment, and Tissue Quality in Central Coast Harbors, Under the Surface Water Ambient Monitoring Program; Final Technical Report*. September 2007. This report is also referred to herein as the "Central Coast Harbor Study Report," and contains analytical results from samples collected in 2004.

operation in 2011, changes in anti-fouling bottom paint regulation and composition, and the City of Santa Barbara Waterfront Department's (City's) implementation of several practices in and around the Harbor over the past six years, the sources of metals and organotin pollution into the Harbor have been significantly reduced or eliminated. Marine battery removal and anti-fouling paint source control, combined with the City's continued effort to educate the public about Harbor water quality protection, warrant the closure of this site with respect to the 2002 marine battery disposal. In addition, based on these measures and the limited distribution of pollutants from these sources, Water Board staff plans no further cleanup action regarding Harbor bottom sediment below the former dry dock at this time. Water Board staff will continue to evaluate 1) sediment quality throughout the Central Coast Region's harbors, including Santa Barbara Harbor, 2) sediment management strategies for harbors in other regions, and 3) where harbor sediment issues fit within the Central Coast Water Board's priorities.

DISCUSSION

Marine Battery Disposal Site Closure Rationale

In 2002, staff from the California Department of Fish and Game, Office of Spill Prevention and Response (CDFG-OSPR) responded to a complaint of alleged illegal marine battery disposal by surveying the Harbor bottom below the then-existing dry dock, as well as below the City Pier and fuel dock. Divers did not observe batteries below the dry dock, but did observe, and eventually removed six batteries from below the City Pier and fuel dock in 2003.

Central Coast Water Board staff closed this site based on the following:

1. The six marine batteries discovered on the Harbor bottom in 2002 were removed by CDFG-OSPR staff in 2003. The City's 2006 sampling of bottom sediments in the vicinity of these batteries indicated nickel only slightly exceeded the Effects Range Low, or ERL³. Although copper also exceeded the ERL, it was detected at a concentration equivalent to the "background" concentration against which the 2002 CDFG-OSPR data were compared. Otherwise, metals and organotin compounds were detected at concentrations below screening levels. As a follow-up action, Waterfront Department personnel periodically include reminders of proper marine battery disposal in their newsletters and bills to boaters. To reduce the likelihood of future inappropriate battery disposal, the Waterfront Department will include such reminders with greater frequency.
2. The City has instituted the following stewardship programs at the Harbor: gaining annual certification as a "clean marina harbor" from the California Coastal Commission's California Clean Boating Network, and conducting annual volunteer Harbor cleanup events in which the community helps to remove sunken trash from the Harbor bottom and adjacent areas.
3. The Harbor is an environment that has been adapted over several decades to accommodate over 1,100 boats, numerous businesses, and a variety of uses. As is the case with parking lots, the Santa Barbara Harbor (and any harbor) is not a pristine environment, but is a setting that has been modified to serve specific societal needs. As such, harbors represent a concentrated environment of several constituents of concern, including trace metal and organotin loading from virtually all boat bottoms, hardware such as marine batteries, and pilings.

³ The ERL is a sediment quality guideline that indicates concentrations below which toxic biological effects to benthic organisms are rarely observed.

Based on the removal of six marine batteries in 2003 and the City's annual evaluations of the Harbor bottom, there is no threat to water or sediment quality due to the 2002 illegal battery disposal and no further investigation or cleanup is necessary. Water Board staff plan no further cleanup action or requirement regarding Harbor bottom sediment below the former dry dock, but will continue to evaluate sediment quality in this and other harbors within the region. If future conditions warrant, Water Board staff may also require cleanup, as appropriate, relative to environmental exposure risk determinations, and as consistent with existing sediment cleanup strategies and organizational priorities. Water Board staff has coordinated with CDFG-OSPR personnel throughout the evaluation of site data; CDFG-OSPR staff agree with this no-further-action determination.

Harbor Sediment Sampling and Analysis

During the 2002 Harbor bottom survey, CDFG-OSPR staff also collected ten bulk sediment samples from the surface of the Harbor bottom beneath the dry dock, as well as from a background location within the Harbor. After assuming the lead regulatory agency role for this site in 2003, and based on CDFG-OSPR's findings, Central Coast Water Board staff directed the City to further characterize the magnitude and distribution of organotins and heavy metals in sediment below the dry dock and other potential "hot spots" within the Harbor. In response, in 2004 and 2006, the City collected sediment samples from the Harbor bottom below the dry dock, a much older former dry dock, two storm drain outlets, and in the vicinity of the City Pier and fuel docks. Additionally, staff from Moss Landing Marine Laboratories collected sediment, water, and fish- and mussel tissue samples from six randomly selected stations within the Harbor in 2004 as part of a multi-harbor study facilitated by the Water Board's Central Coast Ambient Monitoring Program (CCAMP) to evaluate average conditions in six Central Coast harbors (herein referred to as the Central Coast Harbor Study, or CCHS)⁴. None of the six stations were co-located with previous dry dock samples due to the CCHS' objective of evaluating overall harbor health.

Data collected by the above-noted entities between 2002 and 2006 showed that some metals and organotin compounds exceeded concentrations indicative of potential adverse biological effects. However, a Harbor-wide toxicity evaluation included in the CCHS indicated the absence of a toxic effect throughout the Harbor. In addition, the collective 2002 – 2006 data set indicated that the majority of the sediment of concern is localized below the dry dock and is virtually immobile due to documented static Harbor bottom conditions at this location. Water Board staff concluded the metals and organotin compounds entered the Harbor via typical harbor and marina boat maintenance activities that frequently result from dry dock operations (i.e., buffing, sanding, and scraping of vessel bottoms). With the departure of the dry dock operation in 2011 and additional pollution management practices carried out by the City in recent years, Water Board staff concludes that the City has adequately addressed sources of metals and organotin.

PUBLIC COMMENTS

Water Board staff notified interested parties of this proposed case closure in two separate public notices. We received comments in opposition to the closure from Mr. Michael Sheehy of Santa Barbara Channelkeeper (Attachment 2A), and Mr. William Nash (a private citizen; Attachment

⁴ Attachment 1 depicts all sediment sample locations collected by CDFG-OSPR, the City, and Moss Landing Marine Laboratories.

3A). We also received comments from Ms. Hillary Hauser of Heal the Ocean (Attachment 4A)⁵. Although Ms. Hauser did not oppose the closure, she (as well as Mr. Sheehy and Mr. Nash) expressed concerns about the Water Board's and the City's role in improving the overall Harbor sediment and water quality health. Water Board staff evaluated all comments, provided written responses to each of the commenters, and discussed management of Santa Barbara Harbor, as well as all other Central Coast harbors, relative to sources of sediment pollution, with staff from various programs within our office. As a result, Water Board staff will evaluate sediment quality within the region's harbors and address sources (where not already addressed) with harbor management, as appropriate.

All commenters also expressed concern regarding an upcoming marina expansion at the site of the former dry dock and the potential for the expansion work to mobilize constituents of concern in the bottom sediment. The City has informed Water Board staff that it will mitigate the potential for mobilization of the bottom sediment by requiring its contractor to use a turbidity curtain to prevent migration of the bottom sediments during pile driving.

Mr. Sheehy also pointed out that additional marine batteries were removed from the Harbor bottom during the 2011 Harbor Cleanup Day. As a follow up to this comment, Water Board staff has been assured by City personnel that Waterfront Department staff will enhance their effort to police the Harbor and remind the public about marine battery disposal recycling bins located throughout the Harbor. Water Board staff explained to Mr. Sheehy and Mr. Nash that sediment quality will likely improve over time due to source control, the low mobility of sediment below the former dry dock, and enhanced best management practices implemented by the City to control and eliminate other sources of sediment impairment.

CONCLUSION

Central Coast Water Board staff closed the Marine Battery Disposal site in November, as the batteries were removed in 2003, and the City has improved its management practices to protect Harbor sediment and eliminate pollutant sources.

Sediment impacts related to other sources were discovered as part of this and other studies. Staff will continue to evaluate sediment quality at this and other harbors in the region, and require cleanup actions, as appropriate, based on the following:

- 1) Environmental risk posed by sediment quality in harbors throughout the Central Coast Region, to better understand how harbor sediment quality in the Santa Barbara Harbor compares with that of other harbors in terms of impairment,
- 2) Impaired sediment management strategies in other regions (i.e., San Diego, Los Angeles/Long Beach, Oakland, and San Francisco, etc.) to better utilize existing experience/knowledge and decision making and maintain statewide consistency, as appropriate, and
- 3) Central Coast Water Board's program-level and organizational priorities (i.e., where does any proposed action fit relative to the existing priority work currently being done?).

At this time, Central Coast Water Board staff recommends no further action as it relates to sediments from the former dry dock in the Santa Barbara Harbor. Staff will update the Board as more is learned and if a change in direction is proposed on Harbor sediments.

⁵ Water Board staff responses to these three public comments are included as Attachment 2B (response to Mr. Sheehy), Attachment 3B (response to Mr. Nash), and Attachment 4B (response to Ms. Hauser). On behalf of Heal the Ocean, Ms. Hauser also provided Water Board staff with a letter of thanks for management of this site in a letter dated October 3, 2012, (included as Attachment 5).

ATTACHMENTS

- Attachment 1: Santa Barbara Harbor Sampling Areas
- Attachment 2A: Comments from Mr. Michael Sheehy of Santa Barbara Channelkeeper, dated May 21, 2012
- Attachment 2B: Water Board staff response to Mr. Sheehy, dated July 20, 2012
- Attachment 3A: Comments from Mr. William Nash, dated May 15, 2012
- Attachment 3B: Water Board staff response to Mr. Nash, dated July 20, 2012
- Attachment 4A: Comments from Ms. Hillary Hauser of Heal the Ocean, dated April 12, 2012
- Attachment 4B: Water Board staff response to Ms. Hauser, dated July 20, 2012
- Attachment 5: Letter of thanks from Ms. Hillary Hauser of Heal the Ocean, dated October 3, 2012

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