

Central Coast Regional Water Quality Control Board

July 20, 2012

Ms. Hillary Hauser
Executive Director
Heal the Ocean
P.O. Box 90106
Santa Barbara, CA 93190

Dear Ms. Hauser,

SITE CLEANUP PROGRAM: SANTA BARBARA HARBOR DRY DOCK - RESPONSE TO COMMENTS ON PUBLIC NOTICE OF PLAN FOR NO FURTHER ACTION

Thank you for your April 12, 2012 letter and comments on the Central Coast Regional Water Quality Control Board's (Water Board's) *Public Notice of Plan for No Further Action for the Santa Barbara Harbor* (Harbor). As we stated in the public notice, Water Board staff concur with the request from the City of Santa Barbara's (City's) Waterfront Department to close this site within our Site Cleanup Program. Your letter indicates that Heal the Ocean does not oppose this course of action, but you raise questions regarding the overall Harbor health that warrant our response. Your comments are summarized in the following table; our responses to your comments are provided below.

Issues of Concern Expressed by Ms. Hillary Hauser on behalf of Heal the Ocean
1. Concern that Harbor-wide water quality and sediment quality below the "New" Dry Dock and within the Harbor at large is degraded.
2. Steps the City has taken to evaluate if its management practices have made an impact on Harbor-wide sediment quality.
3. Steps Water Board staff have taken to evaluate overall Harbor health over time.
4. Potential disturbance of sediment caused by dredging in the vicinity of the "New" Dry Dock.
5. Possible exposure of scuba divers to sediment below the "New" Dry Dock.

Water Board Staff Responses to Comments

Issue 1: Concern that Harbor-wide water quality and sediment quality below the “New” Dry Dock and within the Harbor at large are degraded.

In addition to reviewing our public notice dated March 14, 2012, you also reviewed the February 29, 2012 Water Board staff memo¹ and the *Environmental Condition of Water, Sediment, and Tissue Quality in Central Coast Harbors* (also known as the Central Coast Harbor Study Report, or CCHS Report²). The February memo summarizes and evaluates all Harbor data (including data from the CCHS) and provides a thorough discussion of the relevance of water quality parameters and sediment quality guideline exceedences. With respect to your concerns associated with sediment quality below the “New” Dry Dock, Water Board staff included technical justification in *Discussion Regarding Further Action* comment 6 in the February 2012 memo and in the Public Notice of No Further Action to explain why we support closure of the Santa Barbara Harbor Dry Dock Site Cleanup Program case.

With respect to your concern for Harbor-wide health, Moss Landing Marine Laboratories (MLML) staff conducted the CCHS by evaluating sediment and water samples from a minimum of six stations in each of the six harbors in our Central Coast Region. In addition, MLML collected fish and mussel tissue samples from a subset of all harbors’ sampling stations, including Santa Barbara’s. MLML staff analyzed all harbors’ samples as follows, and consequently ranked the harbors’ quality according to the USEPA’s National Coastal Condition Assessment:

- **Water samples**: dissolved nutrients, chlorophyll-a, total suspended solids, depth, temperature, pH, dissolved oxygen, specific conductivity, salinity, and sunlight penetration.
- **Sediment samples**: grain size, total organic carbon, trace metals, dibutyltin (DBT), tributyltin (TBT), trace organics, toxicity, and benthic community indicators.
- **Fish and mussel tissue samples**: trace metals, DBT, TBT, and trace organics.

CCHS results indicated:

- Approximately seventeen percent (17%) of the six Santa Barbara Harbor stations displayed a rank of “poor” water quality due to low dissolved oxygen levels.
- Eighty-three percent (83%) of Santa Barbara Harbor stations exhibited “poor” sediment quality ranking mainly due to total organic carbon and total chlordanes, the latter of which suggested toxic biological effects throughout the Harbor. Actual toxicity tests on the amphipod *Eohaustorius estuarius*, however, indicated no toxicity. The sediment quality guideline representing a concentration below which toxic biological effects to benthic organisms are rarely observed (Effects Range Low, or ERL) was exceeded in at least five of the six stations for arsenic, copper, and nickel, but again, toxicity tests indicated no toxicity³.

¹ http://geotracker.waterboards.ca.gov/view_documents.asp?global_id=SL0608336723&document_id=5732194

² Data from the CCHS were collected by Moss Landing Marine Laboratories (MLML) in 2004; the CCHS Report was published in 2007.

³ We have acknowledged in previous documents that the CCHS did not conduct toxicity tests with sediment from below the “New” Dry Dock, therefore direct evidence of the toxicity of this sediment is unknown.

- Twenty-five percent (25%) of the tissue samples from the Harbor exhibited a ranking of “poor” due to arsenic and low molecular weight polycyclic aromatic hydrocarbon concentrations.

Based on the CCHS results, Water Board staff concluded 1) sediment sampled in 2004 indicates various inorganic and organic inputs to the Harbor need to be further evaluated and, most likely, better managed, and 2) even with the concentrations of various constituents detected in 2004 in various media, the Harbor at that time did not satisfy California listing criteria for Water Board staff to include the Harbor on its 303(d) list of impaired water bodies. If the Harbor had been listed on the 303(d) list, Water Board staff would have required the City to establish a total maximum daily load (TMDL) for one or more constituents.

As we’ve stated previously, Site Cleanup Program staff determined that site closure is warranted; this action does not preclude our regulatory oversight by other sections within our office. Our Region’s Central Coast Ambient Monitoring Program (CCAMP), which also facilitated the CCHS, allows staff to assess the magnitude of water quality issues within the Central Coast Region via stream sampling and analysis. Due to the size of our region and the numerous water bodies in it, CCAMP staff devote a year to monitoring a particular part of our region, then move on to the next area in subsequent years until all areas have been monitored. After all areas are addressed, the monitoring process is repeated in the same order so as to evaluate changes in water quality parameters over time. In response to the CCHS’ findings and in order to continue to evaluate the current overall health of the Harbor, CCAMP staff will expand its monitoring program to include frequent dissolved oxygen monitoring of Harbor water starting immediately. In addition, starting in 2014/2015 when the CCAMP rotation returns to Santa Barbara County, CCAMP will establish specific Harbor locations at which trends in sediment quality and toxicity can be evaluated over the long-term. Although these specific locations are in the process of being determined, they will include areas where the CCHS indicated sediment quality was compromised, as well as the Harbor bottom below the “New” Dry Dock and areas where marine batteries have been disposed in the Harbor. The results of this monitoring will allow Water Board staff to determine if the Harbor requires (1) designation as an impaired water body, and consequently, (2) development of a TMDL assessment, and (3) remediation of specific constituents.

In addition to CCAMP, our Stormwater Program staff enforce stormwater regulations via the City’s stormwater pollution, prevention, planning, and monitoring program, which incorporates the Harbor. Water Board staff also issue certification for proposed activities when the proponent has adequately demonstrated the project will not adversely impact waters of the United States. The City’s periodic maintenance dredging of the Harbor perimeter is an example of a Water Board-approved project in which the City has complied with our requirements associated with pre-dredge sampling and the subsequent discharge of dredge and fill material. Site Cleanup Program staff will continue to coordinate with the Stormwater and Water Quality Certification units to insure sediment quality issues observed from 2002 to 2006 are properly addressed.

Issue 2: Steps the City has taken to evaluate if its management practices have made an impact on Harbor-wide sediment quality.

You ask in your April 12, 2012 letter what the City’s Waterfront Department is doing to “get rid of, or stop the sources of” constituents that include arsenic, copper, nickel, total chlordane, and total DDT. As discussed in our February 29, 2012 memo, the City has undertaken the following:

- Compliance with stormwater management requirements.

- The Waterfront Department's stewardship efforts such as continued participation in the Clean Marina Program and annual volunteer Harbor cleanups.

In addition, the City has future plans to accomplish the following:

- Isolate the sediment below the former "New" Dry Dock by adding new boat slips where the dry dock operation had been.
- Prohibit additional dry dock operations within the Harbor.
- Prohibit dredging below the former "New" Dry Dock (Note: experience has shown this area of the Harbor has never required any maintenance dredging).
- Continue to comply with Water Board stormwater management and water quality certification requirements.

Additional "source reduction" actions conducted by others:

- Declining use of boat anti-fouling paints with TBT and copper.
- Elimination of the wastewater discharge to the Harbor from the nearby Harbor Marine Works (HMW) boat yard. Since 2006, HMW separates all solids from its wastewater, which is then collected, passed through a sand/oil filtered interceptor, and sent to the El Estero Wastewater Treatment Facility via the City's sewer system.

Issue 3: Steps Water Board staff have taken to evaluate overall Harbor health over time.

Please refer to our response to Issue 1, in which we describe long-term trend monitoring that will be conducted by our CCAMP staff, and regulatory oversight performed by Stormwater and Water Quality Certification staff.

Issue 4: Potential disturbance of sediment caused by dredging in the vicinity of the "New" Dry Dock.

We agree that dredging in the "New" Dry Dock vicinity could result in the redistribution and/or spreading of sediment throughout an area larger than the current localized area. Fortunately, bathymetric surveys of the Harbor bottom indicate the bottom experiences little sedimentation and limited movement of existing sediment. Therefore, dredging below the "New" Dry Dock has never occurred, and it is highly unlikely it would be needed in the future. Regardless, any dredging within the Harbor would require a Water Quality Certification from Water Board staff.

Issue 5: Possible exposure of scuba divers to sediment below the "New" Dry Dock.

Sediment below the "New" Dry Dock contains boat anti-fouling paint debris from operations conducted at the former dry dock. Because anti-fouling paint targets aquatic organisms and prevents them from adhering to boat hulls, a great deal of research has been conducted to evaluate the effects of anti-fouling paint on specific ecological receptors. Much less research has been conducted on anti-fouling paint effects on humans; however, existing research indicates adverse human health effects associated with such paint have been reported for certain workers (i.e., shipyard painters) who experienced prolonged skin exposure and inhalation of vapors from application of the paint itself, as well as inhalation of fine particles associated with paint removal sand blasting. As you note in your comments, there is the potential that divers could come into contact with sediment below the "New" Dry Dock; however, contact time would be short-lived, dermal contact would be minimized with wet suit and glove coverage, the paint is not fresh, and there would be no vapor or particle inhalation risk. Nonetheless, Water Board staff will discuss with Waterfront Department personnel the

possibility of limiting access to this area on future Harbor cleanups and encourage debris removal under the "New" Dry Dock be conducted with minimal sediment disturbance.

We appreciate you taking the time to review and comment on the public notice. You obviously care a great deal about the Harbor and the many uses it affords the community. We believe the more targeted Harbor monitoring that will be conducted by our office's CCAMP staff (see our response to Issue 1) will be valuable for continued monitoring of the Harbor's overall health. If you have any questions or comments about this letter, please contact **Diane Kukol** at (805) 542-4637 or dkukol@waterboards.ca.gov. You may also contact Thea Tryon at (805) 542-4776 or ttryon@waterboards.ca.gov.

Sincerely,



Digitally signed by Thea Tryon
DN: cn=Thea Tryon, o=Central Coast Water Board,
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for Michael Thomas
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