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June 10, 2009

Tracy Egoscue, Executive Officer
Regional Water Quality Control Board - Los Angeles Region
320 West 4th Street
Los Angeles California, 90013

**Subject: LOS ANGELES REGION INTEGRATED REPORT CLEAN
WATER ACT SECTION 305(b) REPORT AND SECTION 303(d)
LIST OF IMPAIRED WATERS**

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CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

Dear Ms. Egoscue:

We have received the *Notice of Availability* of the referenced documents and the solicitation of public comments. We have reviewed the documents, and concur with Regional Board staff's recommendation to de-list Channel Islands Harbor, listed for lead and zinc in sediment from non-point sources. We understand that this listing was based on a single Bay Protection and Toxic Cleanup Program (BPTCP) sample 13 years ago. At that time, the BPTCP document said that since Channel Islands Harbor "had relatively undegraded benthos and few chemicals at elevated concentration it might also serve as a potential reference site". We'd go even further than that, and state that Channel Islands Harbor is probably one of the cleanest harbors in the nation.

According to the *Surface Water Ambient Monitoring Program Annual Workplan for FY 2004/05* (September 30, 2004), the "Available Information for Channel Islands Harbor/Mandalay Bay" was:

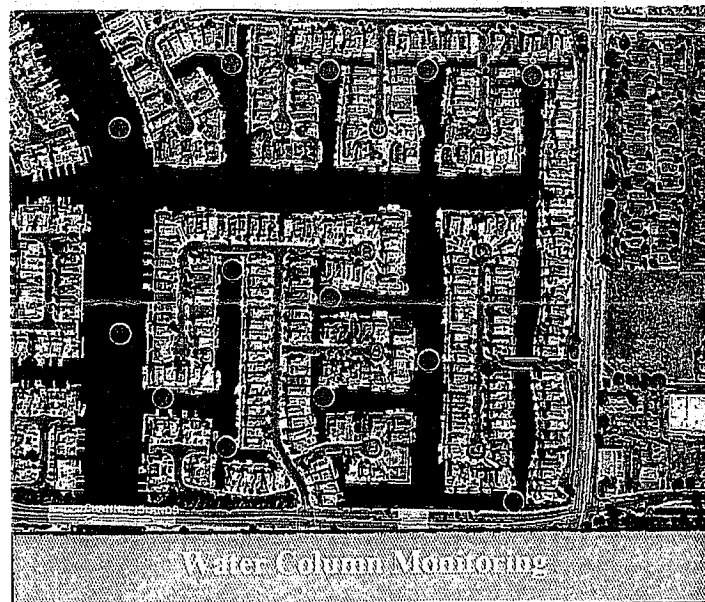
"During the early to mid-1980s, the State Mussel Watch Program found low to intermediate levels of metals and organics in mussels collected from Channel Islands Harbor, with the exception of one sample with very high DDT concentrations. Sediment sampling for metals conducted by Regional Board staff in the harbor in 1988 revealed slightly to moderately elevated concentrations. The harbor is 303(d) listed for lead and zinc in sediments. Sediment samples were collected from the harbor in 1993, 1994 and 1997 as part of the Bay Protection and Toxic Cleanup Program. Channel Islands Harbor was listed as a site of concern due to DDT and silver sediment concentrations and sediment toxicity. The benthic infaunal community sampled at a single station in the harbor in 1997 appeared to be relatively healthy.

The City of Oxnard conducted sediment characterizations of east and west Mandalay Bay to support an application for waste discharge requirements for dredging. Two composite sediment samples collected and analyzed in 2001 from the eastern bay showed low levels of trace metals and trace organics. A single composite sediment sample collected and analyzed in 2004 from the western bay showed low levels of trace metals and trace organics...”

This information suggests that most of the available historic information shows very limited impairment of Channel Islands Harbor.

Harbor conditions are currently being monitored for water column chemistry and bacteria, sediment chemistry and toxicity, and bioassessment (Triad Approach); however, water quality and bioassessment monitoring in the harbor was first performed in a comprehensive study by Moffatt & Nicol Engineers for Ventura County Department of Public Works in 1970. The Summary of the Ecological Study in this report stated that the “floral-faunal assemblages recorded in Channel Islands Harbor indicate that the present water quality is good. Stagnant, warm water areas are anticipated in the easterly channel cul-de-sacs of the proposed residential marina expansion.” These areas became the focus of more recent studies by the City of Oxnard to verify that the harbor continued to meet water quality standards.

The monitoring sites for this focused study in the Mandalay Bay area of Channel Islands Harbor were:



Under conditions of development, the Seabridge Development Project was required to demonstrate effectiveness of best management practices (BMPs) employed at their site, and verify that their project did not negatively impact harbor water quality or benthic habitat. This was done with a monitoring program developed with the assistance of Regional Board staff, and designed to be Surface Water Assessment and Monitoring (SWAMP) compatible and in line with State Water Resources Control Board monitoring programs for the development of sediment quality objectives.

The eight sample locations in this monitoring program are:

Five sample locations are in the newly constructed channels within Seabridge ("SB"):

1. Shallow Bay (SB1)
2. Marina Channel North (SB2)
3. North Channel (SB3)
4. Marina East Channel (SB4)
5. Main Channel/Edison Canal (SB5)

Three sample locations are in the existing channels of the Channel Islands ("CI") Harbor:

1. Main Channel, north of Channel Islands Boulevard Bridge (CI6)
2. Main Channel, south of Channel Islands Boulevard Bridge (CI7)
3. Eastern arm, south of Channel Islands Boulevard Bridge (CI8)

This program addresses metals in sediments by considering the following sediment quality objective (SQO) for aquatic life pertaining to benthic community protection:

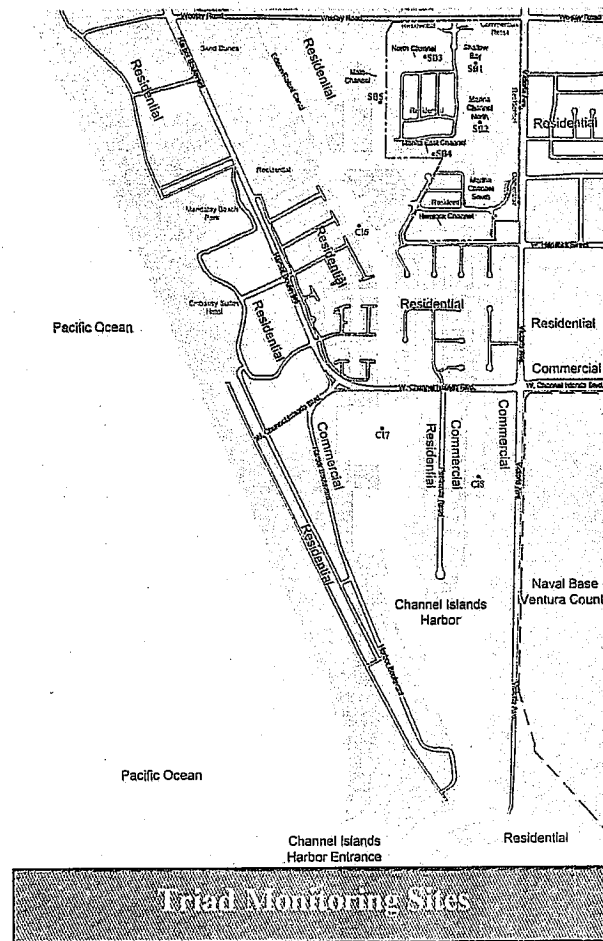
"Pollutants in sediments shall not be present in quantities that, alone or in combination, are toxic to benthic communities in bays and estuaries of California."

To assess if this objective is being met, a multiple lines of evidence (MLOE) approach was used. The three lines of evidence (LOE) used included:

- ❖ Sediment toxicity tests using the amphipod (*Eohaustorius estuaries*) 10-day laboratory survival test which measures the response of test organisms to surficial sediments and assesses both pollutant related biological effects and exposure.
- ❖ Assessment of the biological community composition which is the primary receptor of both natural and anthropogenic disturbances. For this report the benthic response index (BRI) was calculated.

- ❖ Sediment chemistry measuring a suite of contaminants to assess the potential risk to benthic organisms from toxic chemicals. The NOAA Status and Trends, ER-L (Effects Range- Low) and ER-M (Effects Range-Median) threshold limits for exposure were used (NOAA 1991, Long and Morgan 1990, Long and MacDonald 1995). The ER-L represents concentrations of a constituent below which adverse effects rarely occur. The ER-M values are representative of concentrations above which effects frequently occur.

For this portion of the program two sites were located in the recently created channels adjacent the Seabridge housing development (SB3 and SB4) and two were located in the outer channels of CIH (CI7 and CI8).



The Annual Report for the Monitoring Program found:

- ❖ Sediment Chemistry - None of the metals exceeded the ER-M
- ❖ Sediment Toxicity - Of the 24 amphipod survival tests conducted during the six quarterly surveys, 22 were non-toxic, and two were characterized as having "low toxicity" based on criteria in the SQO guidelines
- ❖ Benthic Community - Benthic community conditions using the BRI showed that the two outer harbor sites were comparable to conditions found at reference sites in other southern California bays and estuaries. Each of the sites located in the channels adjacent to the Seabridge development were categorized as being moderately disturbed.... These differences in community structure appear to be the result of the dredging that occurred to create the Seabridge channels

The full Annual Report has been provided to Regional Board staff.

The water quality is expected to further improve, because the new development areas are using filters for the urban runoff. These filters were evaluated recently, and showed the following effluent concentrations:

Parameter	Effluent Concentration (mg/L)		
	Arithmetic EMC Average (for 3 sampled events)	Volume-Weighted EMC Average (for 3 sampled events)	Expected (as per Project Plan)
TSS (SM)	37	32	35
Total Copper	<0.01	<0.01	0.014
Total Lead	<0.01	<0.01	0.007
Total Zinc	0.037	0.036	0.108
Total Kjeldahl-N	1.6	1.6	2.17
Total Phosphorus	0.3	0.3	0.21

The potential impacts from existing harbor areas have already been mitigated. Although the 303(d) list states that the source of the elevated zinc and lead was non-point, City staff believe that the elevated levels found were due to an NPDES permitted discharge from a boat repair facility that has since been allowed to connect to the City's WWTP collection system, following extensive pretreatment. City staff continue to inspect and monitor these types of facilities for compliance.

Thank you for the opportunity to review the draft 305(b) report and provide comments. Please feel free to call me at (805) 385 – 8308 if any clarification is required, or ask your staff to contact Mark Pumford, Technical Services Manager, at (805) 271 - 2220.

Sincerely,



Mark S. Norris
Assistant Public Works Director

c: Man Voong, Regional Water Quality Control Board - Los Angeles Region