February 27, 2007

Deborah Neiter
Los Angeles Regional Water Quality Control Board
320 W. Fourth St., Suite 200
Los Angeles, CA 90013

Subject: Information to Support Reassessment and Delisting of Harbor Cove/Peninsula Beach

Dear Ms. Neiter:

The City of San Buenaventura and the Ventura Port District appreciate the opportunity to provide information to support the reassessment and delisting of Harbor Cove/Peninsula Beach in the Ventura Harbor on the 2008 303(d) list.

In 2002, Peninsula Beach (now called Harbor Cove Beach) was placed on the 303(d) list. The listing fact sheet stated that 19 out of 102 samples collected in 1999, 2000, and 2001 exceeded the water quality criteria, resulting in the listing. Data collected since 2001 were reviewed to determine if the beach was still exceeding water quality criteria or would qualify for delisting under the 2004 Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy). This letter provides a summary of that review and the attachment provides the data analysis to support the letter's conclusions.

Data Used in the Analysis

Data for total coliform, fecal coliform, and enterococcus are collected by two agencies: the City of Ventura Sanitation Department, and the Ventura County Environmental Health Department. Datasets from the two sources containing data from 2002 to February 2007 were gathered and used for the data analysis.

Bacteria samples are collected at Harbor Cove/Peninsula Beach by the Ventura County Environmental Health Department approximately weekly throughout the year. Samples are analyzed for Total Coliform, Fecal Coliform, and Enterococcus. The City of Ventura Department of Sanitation also collects bacteria samples at Harbor Cove/Peninsula Beach approximately once a month October through March, and weekly April through September. Samples are also analyzed for Total Coliform, Fecal Coliform, and Enterococcus. Between January 2002 and February 2007, 439 samples were collected and analyzed by the County and City for the above constituents.

The two sets of data were combined into one dataset for review per the Listing Policy. All data were considered in the analysis. However, for the City of Ventura dataset, it was noted that the 2002 data for fecal coliform and enterococcus were exactly the same. These data should be reviewed for accuracy. The analysis was conducted with and without this data for comparison.

Comparison of Data to Water Quality Criteria

For each of the constituents, the results were compared to the single sample and geometric mean criteria as shown in the following table:

Ventura Port District
1603 Anchors Way Drive, Ventura, CA 93001-4229
805/642-8538 • FAX 805/658-2249
www.venturaharbor.com

2-939

Table 1. Bacteria Water Quality Objectives for Marine Waters in the Los Angeles Region Basin Plan and as Prescribed by State Legislation AB411

Beneficial Use	Single Sample Density Limits[a]			Geometric Mean Density Limits[b]		
	Enterococcus	Fecal Coliform	Total Coliform[c]	Enterococcus	Fecal Coliform	Total Coliform
Water Contact Recreation (REC-1)	≤ 104/ 100mL	≤ 400 /100mL	≤ 10,000 /100mL	≤ 35 /100mL	≤ 200 /100mL	≤1,000 /100mL

a Maximum value of a single grab sample
b Geometric mean values are calculated based on at least five samples equally-spaced over a 30-day period
c If the fecal coliform to total coliform ratio is greater than 0.1, then the criteria is 1000 /100 mL

For the single sample criteria, each sample was compared to the appropriate criteria. If the sample result was greater than the criteria, then it was counted as an exceedance. Additionally, the fecal to total coliform ratio was calculated to determine the appropriate total coliform criteria to apply.

For comparison to the geometric mean criteria, the criteria states that the geometric means are to be calculated based on no less than 5 samples collected during a 30-day period. Geometric means of the indicator bacteria data were calculated in a rolling fashion. For each sample, the geometric mean was calculated using all of the samples collected in the previous 30 days and the geometric mean was compared to the appropriate criterion. If there were less than 5 samples collected during the previous 30 days, the geometric mean was also calculated and compared to the appropriate criteria. For the calculation of the number of exceedances and comparison to the Listing Policy, two evaluations are presented: one that includes the geometric means with only 4 samples and only includes geometric means calculated with at least 5 samples.

The following tables summarize the number of exceedances in the dataset for each of the water quality criteria.

Table 2. Summary of Objective Exceedances

	Single Sample Exceedances (n = 439)		All Geomean Exceedances[c] (n = 435)	Geomean Exceedances with at least 5 samples[d] (n = 430)
Total Coliform (MPN/100 mL)	24	6[a]	55	55
Fecal Coliform (MPN/100 mL)	10		0	0
Enterococcus (MPN/100 mL)	32		53	51
Allowable Exceedances for De-listing:[b]	72		72	71

a Exceedances of 1000 MPN/100 mL when the ratio of Fecal Coliform/Total Coliform > 0.1
b See discussion below of how the number of allowable exceedances was calculated.
c Geometric mean exceedances calculated using all of the available data.
d Geometric mean exceedances if the geometric means calculated using less than 5 data points are excluded.

Comparison of Exceedances to Listing Policy

The number of exceedances shown in the tables above was then compared to the requirements for delisting presented in Section 4 of the Listing Policy. For bacteriological constituents, the maximum number of exceedances allowed for delisting is shown in Table 4.2 (Page 15). The table shows the maximum allowable number of exceedances for sample sizes up to 120 and provides an equation for calculating the number of exceedances if the sample size is greater than 120. The number of samples in the dataset used for this analysis was 439 for the single

sample comparisons and 430 for the geometric mean comparisons. Therefore, the equations were used to calculate the maximum number of allowable exceedances.

The calculation was conducted by using the excel formulas to calculate α and β according to the equations in Table 4.2 of the guidance, and finding the number of exceedances where $\alpha - \beta$ is minimized. The resulting number of allowable exceedances is shown in Table 2.

As shown in Table 2 above, the total number of exceedances for all constituents and for all criteria is below the allowable number of exceedances calculated from the Listing Policy. As a result, the available data collected since 2002 show that Harbor Cove Beach should be delisted per the 2004 Listing Policy.

The attachments to this letter include the spreadsheets and data calculations used to determine the number of exceedances and the number of allowable exceedances.

Thank you for your consideration of these comments. If you have any questions, please feel free to contact Ashli Desai with Larry Walker Associates at 310-394-1036.

Yours truly,
Sincerely,

Oscar Peña
General Manager

Vicki V. Musgrove
Division Manager
Public Works Agency
City of Ventura

This Page Intentionally
Left Blank