Change Sheet for the Santa Monica Bay Beaches Bacteria TMDL Staff Report
January 14, 2002

Page(s)	¶	Change
		In response to comments from several agencies, staff has added a footnote to sections 3 and 7.3.1 to clarify that staff did not intend to re-evaluate the zero (0) exceedance days during summer dry weather. In the November 9, 2001 draft TMDL (section 8.2), staff proposed that compliance during summer dry weather be achieved within three years of the effective date of the TMDL. In the November 9, 2001 draft TMDL (section 7.5), staff included a re-opener *five years* after the effective date of the TMDL, which is after the 3-year compliance deadline for summer dry weather. Therefore, it is clear that staff did not intend to re-evaluate the zero (0) exceedance days for summer dry weather.
13	3	Staff has added the footnote below to section 3, page 13, following the sentence stating, "Based on these criteria, no exceedances will be allowed during summer dry weather (April 1 to October 31)": This is further supported by the fact that the California Department of Health Services has established minimum protective bacteriological standards – the same as the numeric targets proposed in this TMDL – which when exceeded during the period April 1 to October 31 are used to post beaches with health hazard warnings (California Code of Regulations, title 17, section 7958). In order to fully protect public health and prevent beach postings during this period, staff does not intend to change the zero (0) exceedance days during summer dry weather (April 1 to October 31).
35	3	Staff has added the footnote below to section 7.3.1, page 35, following the sentence stating, "For summer dry weather this is very straightforward – no exceedances are allowed at any site, since 5 years of historical data for Leo Carrillo Beach, the reference beach, show no exceedances during this period": The WLA of zero (0) exceedance days is further supported by the fact that the California Department of Health Services has established minimum protective bacteriological standards – the same as the numeric targets proposed in this TMDL – which, when exceeded during the period April 1 to October 31, are used to post beaches with health hazard warnings (California Code of Regulations, title 17, section 7958). In order to fully protect public health and prevent beach postings during this period, staff does not intend to change the zero (0) exceedance days during summer dry weather (April1 to October 31).
Various		"Load Allocations" for urban runoff have been changed to "Waste Load Allocations" because current regulations define discharges regulated under a Storm Water NPDES Permit as point sources. Therefore, they must be assigned "Waste Load Allocations" not "Load Allocations", which are for nonpoint sources.
26	2	Staff revised the introductory paragraph of section 5 to focus on dry weather, since staff is bifurcating the wet and dry components of the TMDL. Staff added the following discussion: Based on the retrospective evaluation of shoreline monitoring data discussed in section 2.3 and source analysis presented in section 4.2.2, staff has concluded that, with the exception of isolated sewage spills, dry weather urban runoff

		conveyed by storm drains and creeks is the primary source of elevated bacterial indicator densities to SMB beaches during dry weather. Limited natural runoff and groundwater sources may also potentially contribute to elevated bacterial indicator densities during winter dry weather. This is supported by the finding that historical monitoring data from the reference beach (discussed in detail in section 7) indicate no exceedances of the single sample targets during summer dry weather and on average only three percent exceedance during winter dry weather. Studies show that bacterial degradation and dilution during transport from the watershed to the beach do not significantly affect bacterial indicator densities at SMB beaches (see Appendices E and F). Therefore, the loading capacity is defined in terms of bacterial indicator densities and is equivalent to the numeric targets in section 3.
22	3	Because staff has bifurcated the wet and dry components of the TMDL, staff has discussed the critical condition in a different way to highlight dry weather. Staff has not changed the reference (design) year of 1993. However, instead of describing it as the 90th percentile year in terms of rain days, staff describes it as the 10th percentile year in terms of non-rain days. Specifically, staff added the following text to section 5.1, page 23: The critical period for this dry weather bacteria TMDL is during winter months, when historic shoreline monitoring data for the reference beach indicate that the single sample bacteria objectives are exceeded on average 3% of the dry weather days sampled. (See section 7.3.1, Exceedance criteria for dry weather.) The reason for this is believed to be the result of winter rains, which raise the groundwater table. The higher groundwater tables continue to discharge to freshwater creeks for some time after the rains. The number of allowable exceedances during winter dry weather is based on a percentage (3%) of dry weather days assumed for the reference year. Staff selected the 10th percentile year in terms of non-rain days as the reference year based on an evaluation of rainfall data at LAX from 1947-2000 (see Appendix D for annual rainfall data at the LAX meteorological station). The 10th percentile year in terms of number of non-rain days was 1993. In 1993, there were 122 days with less than 0.1 inch of rain. Selecting the 10th percentile year to set the allowable number of winter dry weather exceedance days is a conservative approach because in nine years out of ten there will be more non-rain days than in the reference year, which increases the opportunity for a greater number of exceedance days.
28	2	Staff revised the introductory paragraph of section 6 “Margin of Safety” to focus on dry weather, since staff is bifurcating the wet and dry components of the TMDL. Staff added the following language to section 6, page 28: WLAs of zero days of exceedance during the summer (described in Section 7) include an implicit margin of safety. The WLAs of a maximum of four days of exceedance during winter dry weather (described in Section 7) include an implicit margin of safety because the allowable days of exceedance are based on samples collected 50 yards downcurrent of the storm drains and freshwater outlets, including the reference beach. Findings from a bacterial dispersion study show that there is typically significant dilution between the freshwater outlet, the wave wash (the compliance point), and a point 50 yards downcurrent.

30	1	Staff has added a sentence to section 7 based on comments received to clarify that the three Publicly Owned Treatment Works (POTWs) within the Santa Monica Bay watershed are each given individual waste load allocations (WLAs) of zero (0) exceedance days for both compliance periods (i.e., summer dry weather and winter dry weather). As discussed in section 4.1, the three POTWs have demonstrated their ability to comply with bacteriological receiving water permit limits. Furthermore, while occasional sewage spills may occur, these are illegal and therefore no exceedance days are permitted due to sewage spills. Specifically, staff added the following sentence to section 7, page 30, for clarification: As discussed in section 4.1, the three POTWs have demonstrated the ability to comply with bacteriological receiving water limits and, therefore, are each assigned WLAs of zero (0) exceedance days for both compliance periods.
30	1	Staff has added a sentence to section 7 based on comments received to clarify that joint waste load allocations (WLAs) for each shoreline monitoring location are given to the co-permittees of the LA County Municipal Storm Water NPDES Permit and Caltrans, which is also subject to a Storm Water NPDES permit. The LA County Municipal Storm Water NPDES permit (LA County MS4 Permit) and Caltrans' Storm Water NPDES permit were discussed by staff in section 4. Specifically, staff added the following sentence to section 7, page 30, for clarification: A joint WLA is given to LA County MS4 permittees and Caltrans for each shoreline monitoring location and for each of the two compliance periods (summer dry weather and winter dry weather).
35		Staff is correcting an error in the calculation of wet weather days in Footnote 38 of the November 9, 2001 draft. In the draft, staff made an inappropriate assumption in calculating the number of wet weather days in the design year. Based on this assumption, staff estimated 116 wet weather days in the design year and a corresponding 35 days of winter dry weather. Based on a re-examination of the rainfall data for the design year, staff calculated 29 wet weather days and a corresponding 122 days of winter dry weather. This re-calculation affects the number of allowable exceedance days during winter dry weather. The allowable exceedance days were determined by multiplying the average percentage of winter dry weather exceedance days (3%) at the reference beach (Leo Carrillo Beach) for the period 1996-2000 by the number of winter dry weather days in the design year. Based on the original estimate of wet weather days, the allowable number of winter dry weather exceedance days was set at two days. Based on the re-calculation, the allowable number of winter dry weather is revised to four days. This changes the allowable winter dry weather exceedance days discussed in section 7.3.1 and presented in Table 17, and the necessary reduction in winter dry weather exceedance days in Table 18 of the November 9, 2001 draft.
46	1	Staff has added language in section 9.2 to clarify staff's proposal regarding when an exceedance day will be considered a violation of the waste load allocation(s). Specifically, staff added the following sentence: Once source elimination, treatment or diversion is implemented for a freshwater

		outlet (i.e., storm drain or creek), and exceedance will only be considered a violation upon sampling confirmation within 24 hours.
46	2	Staff has added language in section 9.2.1 to clarify staff's proposal regarding when following-up monitoring, and specifically, a sanitary survey will be required and who is responsible for conducting the monitoring. Staff has also added an Appendix H with the text of Assembly Bill 538, which requires the State Board to develop guidelines for conducting sanitary surveys. Specifically, staff added the following sentences: Furthermore, if a beach location with a freshwater outlet is out-of-compliance (based on a confirmation sample within 24 hours), responsible jurisdictions and agencies under the LA County MS4 and Caltrans Storm Water Permits will be required to initiate an initial investigation, which may lead to a sanitary survey of the subwatershed(s) per Assembly Bill 538 protocols to more specifically locate the source of the problem, and may wish to conduct compliance monitoring at key municipal boundaries as part of this effort. (See Appendix H for text of Assembly Bill 538.) If a beach location without a freshwater outlet is out-of-compliance or if the outlet (i.e., storm drain) is diverted, the adjacent municipality, County agency(ies), or State agency(ies) will be responsible for conducting the investigation.