

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

**RESPONSE TO WRITTEN COMMENTS**

ON THE REISSUANCE OF WASTE DISCHARGE REQUIREMENTS FOR:

Sewer Authority Mid-Coastside  
1000 North Cabrillo Highway  
Half Moon Bay, CA 94019  
NPDES Permit No. CA0038598

- I. Sewer Authority Mid-Coastside - November 14, 2006**
- II. Monterey Bay National Marine Sanctuary - November 15, 2006**
- III. Editorial Changes**

*Note: The format of this staff response begins with a brief introduction of the party's comments, followed with staff's response. Interested persons should refer to the original letters to ascertain the full substance and context of each comment. Text changes are shown using underline for added text and ~~striketrough~~ for deleted text.*

**I. Sewer Authority Mid-Coastside (SAM)**

SAM Comment 1.

*The Reasonable Potential Analysis (RPA) for SAM was done using data from March 2003 to March 2006. This resulted in a finding of inconclusive RP (Endpoint 3) for cyanide, even though it has not been detected in SAM effluent since December 1999, because the data set had less than 15 values. SAM requests that reasonable potential for cyanide be recalculated using at least 16 observations over the term of the expiring Order, which would result in a finding of no RP (Endpoint 2), and the removal of the cyanide effluent limit from the revised Tentative Order (TO). SAM also requests several text changes reflecting the finding of no RP for cyanide in the revised TO.*

Response 1.

Given that cyanide has not been detected in SAM effluent since January 8, 1998, and that the finding of inconclusive RP was solely an artifact of the size of the data set, we have granted the request to recalculate reasonable potential for cyanide. We recalculated RP for cyanide using cyanide data from December 1999 to March 2003. Because the resulting data set consisted of 16 non-detects and no detects, we found no RP for cyanide. We have made the following revisions to the TO:

**Section IV, Table 7, Effluent Limitations:**

**Table 7. Effluent Limitations**

Parameter	Units	Effluent Limitations <sup>[1]</sup>				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum	6-month Median
Biochemical Oxygen Demand 5-day @ 20°C (BOD <sub>5</sub> )	mg/L	30	45	--	--	--

Parameter	Units	Effluent Limitations <sup>[1]</sup>				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum	6-month Median
Total Suspended Solids (TSS)	mg/L	30	45	--	--	--
Oil and Grease	mg/L	25	40	--	75	--
Settleable Solids	mL/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	225	--
Acute Toxicity	TU <sub>a</sub> <sup>[2]</sup>	<del>1.5</del>	<del>2.0</del>	<u>3.87</u>	<del>2.5</del>	--
Chronic Toxicity	TU <sub>c</sub> <sup>[3]</sup>	--	--	120	--	--
Total Chlorine Residual	mg/L	--	--	0.96	7.2	0.24
	kg/day	--	--	15	--	3.6
Cyanide <sup>[4]</sup>	<del>ug/L</del>	--	--	480	<del>1,200</del>	<del>120</del>

[1] Mass emission limitations are based on a peak dry weather capacity of 4 MGD, and apply only during dry weather months. Weekly and monthly mass effluent limitations shall be calculated by averaging the reported daily values over the relevant number of days for the monitoring interval.

[2] Acute toxicity concentration shall be determined as follows:

$$TU_a = \frac{100}{96-hr LC_{50}}$$

Where LC<sub>50</sub> (percent waste giving 50% survival of test organisms) shall be determined using marine test species. When it is not possible to measure the 96-hour LC<sub>50</sub> due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TU_a = \frac{\text{Log}(100 - S)}{1.7}$$

[3]  $TU_c = \frac{100}{NOEC}$

Where NOEC (No Observed Effect Concentration) is expressed as the maximum percent effluent or receiving water that causes no observable effect on the test organism as determined by the result of a critical life stage toxicity test listed in Appendix III of the Ocean Plan (2005) adopted and effective February 14, 2006

[4] ~~The Discharger may demonstrate compliance with this limitation by measurement of weak acid dissociable cyanide.~~

**Attachment E, Monitoring and Reporting Program (MRP), Table E-3, Effluent Monitoring M-001:**

**Table E-3. Effluent Monitoring M-001**

Parameter	Units <sup>[1]</sup>	Sample Type <sup>[2]</sup>	Minimum Sampling Frequency	Required Analytical Test Method <sup>[3]</sup>
Flow Rate <sup>[4,5]</sup>	MGD	Continuous	Continuous	---
BOD <sub>5</sub> <sup>[5]</sup>	mg/L	C-24	1X / Week	405.1
TSS <sup>[5]</sup>	mg/L	C-24	2X / Week	160.2
Settleable Solids	mg/L	C-24	2X / Week	160.5
Oil & Grease <sup>[5, 6]</sup>	mg/L	Grab	1X / Quarter	1664

Re-issuance of NPDES Permit

Parameter	Units <sup>[1]</sup>	Sample Type <sup>[2]</sup>	Minimum Sampling Frequency	Required Analytical Test Method <sup>[3]</sup>
Turbidity	NTU	C-24	2X / Week	180.1
Acute Toxicity, 96-hr LC <sub>50</sub> <sup>[7, 8, 9]</sup>	TUa	Flow through	<del>2M</del> 1X / Quarter	821-R-02-012
Chronic Toxicity	TUc	C-24	1X / Year <sup>[10]</sup>	821-R-02-012
Ammonia Nitrogen & Unionized Ammonia <sup>[9]</sup>	mg/L	Grab	2X / Month	350.3
pH <sup>[8]</sup>	pH units	Grab	1X / Day	150.1 or 9040
Dissolved Oxygen <sup>[8]</sup>	mg/L, % saturation	Grab	1X / Day	---
Temperature <sup>[8]</sup>	°C	Grab	1X / Day	---
Sulfides (if DO < 5.0 mg/L) Total and Dissolved	mg/L	Grab	1X / Day	376.2
Cyanide	<del>µg/L</del>	<del>Grab</del>	<del>1X / Quarter</del>	<del>OIA-1677</del>
Priority Pollutants <sup>[11]</sup>	µg/L	C-24	1X / Year	<sup>[12]</sup>

**Attachment E, MRP, Table E-3, Effluent Monitoring M-001, Footnote 11:**

[11] All pollutants listed in Table B of the Ocean Plan (2005), except acute and chronic toxicity and total chlorine residual, and cyanide, as noted above.

**Attachment F, Fact Sheet, Table F-7, RPA Results for Sewer Authority Mid-Coastside:**

**Table F-7. RPA Results for Sewer Authority Mid-Coastside**

Table B Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Conc. (µg/L)	RPA Result, Comment
<b>Objectives for Protection of Marine Aquatic Life</b>					
Arsenic	8	8	3	1.3	Endpoint 2 – An effluent limitation is not required for this pollutant. Monitoring may be required as appropriate.
Cadmium	1	7	4	0.1	Endpoint 2 – An effluent limitation is not required for this pollutant. Monitoring may be required as appropriate.
Chlorinated Phenolics	1	7	7	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Chromium (VI)	2	5	5	ND	Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND.
Copper	3	7	2	26	Endpoint 2 – An effluent limitation is not required for this pollutant. Monitoring may be required as appropriate.
Cyanide	1	16	16	ND	<del>Endpoint 3 – RPA is inconclusive. Less than 3 detects or greater than 80% ND. Limitation retained.</del> Endpoint 2 – An effluent limitation is not required for this pollutant. Monitoring may be required as appropriate

**Attachment F, Fact Sheet, Table F-7, RPA Results for Sewer Authority Mid-Coastside, footnote:**

Effluent data used for this RPA are from March 2003 to March 2006 except for cyanide, where the data from December 1999 to March 2003 are used at the discharger's request because of the infrequent monitoring and predominance of non-detects.

**Attachment F, Fact Sheet, Section IV.C.4, WQBEL Calculations, Cyanide:**

Deleted.

**Attachment F, Fact Sheet, Section VI.B, Effluent Monitoring, 4 and 5:**

- ~~4. Effluent monitoring is required one time per quarter for cyanide as cyanide is specifically limited by this Order. Effluent monitoring for cyanide is no longer required because of the finding of no reasonable potential.~~
5. Sampling of all priority pollutants listed in Table B of the Ocean Plan, as required by Appendix III, must be conducted on an annual basis, at a minimum, for dischargers with effluent volumes between 1 and 10 MGD. More frequent monitoring is required for total chlorine residual, ~~and cyanide~~. The Discharger's average annual discharge rate of 1.88 MGD is used to determine the sampling frequency.

SAM Comment 2.

*SAM comments that they have demonstrated no RP for acute toxicity based on their October 13, 2006, memo, and requests that the acute toxicity limit be deleted from the TO. Alternatively, SAM requests that the performance-based acute toxicity limits the TO proposes to retain from the previous permit be replaced by performance goals calculated based on the water quality objective for acute toxicity of 0.3 chronic toxicity units (TUa) from the 2005 Ocean Plan and the dilution factor of 119:1. SAM also states that it is unclear what the technical rationale for finding RP for acute toxicity is, and requests that one be added to the Fact Sheet, and requests that if acute toxicity limits are to be included in the TO, they be recalculated based on the 2005 Ocean Plan: SAM's understanding is that because the previous technology-based acute toxicity limit, based on the 1997 Ocean Plan, has been superseded by a water quality based limit in the 2005 Ocean Plan, recalculation of the acute toxicity effluent limits would not violate the Federal prohibition against backsliding.*

Response 2.

We are denying the request to delete the acute toxicity effluent limit from the TO, and the request to replace it with a performance goal. We support whole effluent toxicity (WET) testing in almost every case because 1) a limited number of individual pollutants can be monitored in any given discharge, and 2) whole effluent toxicity testing is the ultimate proof of a non-toxic effluent that protects water quality and beneficial uses.

We agree that a numerical RPA results in a finding of no RP for acute toxicity; however, the 2005 Ocean Plan allows a finding of RP based on Best Professional Judgment considering among other factors the beneficial uses of the receiving water; and the presence of endangered or threatened species, or of critical habitat. Beneficial uses of the receiving water include its use as part of the MONTEREY BAY NATIONAL MARINE SANCTUARY (MBNMS), and

endangered and threatened species, as well as critical habitat, are present. Therefore, we find that RP does exist for acute toxicity, and that an effluent limit for acute toxicity is warranted.

In a recent NPDES permit issued concurrently with United States Environmental Protection Agency (USEPA) for the San Francisco Oceanside Treatment Plant (NPDES Permit No. CA 0037681, Order No. R2-2003-0073), the USEPA recalculated the acute toxicity effluent limitation according to 2001 Ocean Plan procedures. Because SAM's requested change from a technology based limitation to a water quality based limitation from the 2005 Ocean Plan (2005 Ocean Plan procedures for calculation of acute toxicity limits are the same as those in the 2001 Ocean Plan.) is effectively the same action taken by the USEPA, it appears that SAM's assertion that doing so does not violate federal anti-backsliding provisions is correct. We have recalculated the acute toxicity effluent limit accordingly, and revised the TO as follows:

Table 7, Effluent Limitations, Acute Toxicity row:

Parameter	Units	Effluent Limitations <sup>[1]</sup>				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum	6-month Median
Acute Toxicity	TU <sub>a</sub> <sup>[2]</sup>	<del>1.5</del>	<del>2.0</del>	<u>3.87</u>	<del>2.5</del>	--

We have revised the Fact Sheet, Section VI.C.4.5, Whole Effluent Toxicity, fourth paragraph through the end, as follows:

In addition, the Ocean Plan permits the Regional Water Board to require acute toxicity monitoring for discharges with a minimum initial dilution ratio of between 100:1 and 350:1 in order to protect beneficial uses of the receiving water. The Regional Water Board finds that there is reasonable potential for this discharge to contribute to an excursion from the acute toxicity water quality objective based on the sensitivity of the receiving water (Monterey Bay National Marine Sanctuary) and Best Professional Judgement. The specific beneficial uses of the receiving water that this judgment is intended to protect include (but are not limited to) protection of rare and endangered species, preservation of critical marine habitat, and use for fish spawning and fish migration, all of which are uses intrinsic to the Sanctuary. Therefore, ~~this Order includes an the acute toxicity limitation. is retained~~ The acute toxicity limitation is recalculated as a water quality based effluent limitation based on the 2005 Ocean Plan, and replaces the technology based acute toxicity limitations from Order 00-016. The Regional Water Board concludes that this action for this provision of the Ocean Plan does not violate federal anti-backsliding provisions because the USEPA took the same action on the acute toxicity limit when reissuing NPDES Permit No. CA 0037681 for the San Francisco Oceanside Treatment Plant. (These limits are more stringent than limits derived based on current Ocean Plan policy and are retained in compliance with the prohibition against backsliding. Acute toxicity results over the term of Order No. 00-016 ranged from 0 to 1.20 TU<sub>a</sub>, which is well within that order's limit.

The acute toxicity effluent limitation is calculated according to Section III.C.4.b of the Ocean Plan as follows:

Daily Maximum:  $C_e = 0.3 + (0.1)119(0.3) = 3.87 \text{ TUa}$

**SAM Comment 3.**

SAM requests that the acute toxicity monitoring frequency be revised to quarterly given that acute toxicity testing is not explicitly required by the Ocean Plan, there is no RP for acute toxicity, and the quality of SAM's effluent.

**Response 3.**

Given that SAM will be monitoring chronic toxicity as well as acute toxicity, and that acute toxicity will be monitored using marine test species, we agree that quarterly acute toxicity testing is sufficient. We have revised MRP Table E-3, Effluent Monitoring E-001, as follows:

**Table E-3. Effluent Monitoring M-001**

Parameter	Units <sup>[1]</sup>	Sample Type <sup>[2]</sup>	Minimum Sampling Frequency	Required Analytical Test Method <sup>[3]</sup>
Flow Rate <sup>[4,5]</sup>	MGD	Continuous	Continuous	---
BOD <sub>5</sub> <sup>[5]</sup>	mg/L	C-24	1X / Week	405.1
TSS <sup>[5]</sup>	mg/L	C-24	2X / Week	160.2
Settleable Solids	mg/L	C-24	2X / Week	160.5
Oil & Grease <sup>[5, 6]</sup>	mg/L	Grab	1X / Quarter	1664
Turbidity	NTU	C-24	2X / Week	180.1
Acute Toxicity, 96-hr LC <sub>50</sub> <sup>[7, 8, 9]</sup>	TUa	Flow through	<del>2M</del> 1X / Quarter	821-R-02-012
Chronic Toxicity	TUc	C-24	1X / Year <sup>[10]</sup>	821-R-02-012
Ammonia Nitrogen & Unionized Ammonia <sup>[9]</sup>	mg/L	Grab	2X / Month	350.3
pH <sup>[8]</sup>	pH units	Grab	1X / Day	150.1 or 9040
Dissolved Oxygen <sup>[8]</sup>	mg/L, % saturation	Grab	1X / Day	---
Temperature <sup>[8]</sup>	°C	Grab	1X / Day	---
Sulfides (if DO < 5.0 mg/L) Total and Dissolved	mg/L	Grab	1X / Day	376.2
Cyanide	µg/L	Grab	1X / Quarter	OIA-1677
Priority Pollutants <sup>[11]</sup>	µg/L	C-24 <sup>[12]</sup>	1X / Year	<sup>[12]</sup>

**SAM Comment 4.**

Based on previously submitted ammonia toxicity investigation and evaluation (TIE) work and the acute toxicity screening summary report submitted to the RWQCB on November 6, 2006, SAM requests that MRP Section V.A.2 be revised to state that SAM has submitted information and been granted approval to remove specific substances (i.e., ammonia removal by zeolite filtration or pH adjustment) from effluent samples prior to acute toxicity testing.

Response 4

We have received the acute toxicity screening summary report referenced by SAM and are generally satisfied with its conclusion that most, if not all, of the observed toxicity was caused by ammonia. MRP Section V.A.2 has been revised as follows:

2. The Discharger has performed a TIE on SAM effluent confirming that unionized ammonia was responsible for past observed toxicity, and that the concentration and form of ammonia in the effluent do not cause similar toxicity in the receiving water. The Discharger is therefore granted approval to control unionized ammonia formation in effluent samples by pH control prior to acute toxicity testing. ~~Written approval from the Executive Officer must be obtained to authorize such an adjustment.~~

SAM Comment 5.

*SAM has been conducting chronic toxicity screening testing annually with three species, topsmelt, red abalone and giant kelp, since 2000. The Ocean Plan allows for compliance monitoring using the single most sensitive species following completion of a three species screening study. The six completed screening tests (with a seventh being conducted this year), provide an abundance of data. A chronic toxicity screening summary report was submitted to the RWQCB November 6, 2006 that recommended use of red abalone as the single test species. SAM therefore requests that the permit include 1) annual chronic toxicity monitoring requirements with red abalone or as otherwise approved by the EO, and 2) one re-screening test to be conducted during this 5-year permit term. SAM also requests that the chronic toxicity TUc equation be changed to be consistent with the permit and the Ocean Plan definitions as shown below.*

**pg 10, Table 7 Effluent Limitations footnote 3.**

$$[3] TU_c = \frac{100}{NOEL}$$

Where NOEL (No Observed Effect Level Concentration) is expressed as the maximum percent effluent or receiving water that causes no observable effect on the test organism as determined by the result of a critical life stage toxicity test listed in Appendix III of the Ocean Plan (2005) adopted and effective February 14, 2006

**Attachment A-Definitions**

**pg A-2, b. No Observed Effect Level (NOEL)**

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Ocean Plan Appendix III. NOEL for compliance determination is equal to IC25 or EC25. If the IC25 or the EC25 cannot be statistically determined, the NOEL shall be equal to the no observed effect concentration (NOEC) derived using hypothesis testing.

**Monitoring and Reporting Program**

**pg E-6, V.B.3.a.** ~~The Discharger shall conduct tests with a minimum of three test species, if possible including a vertebrate, an invertebrate, and an aquatic plant, for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species, currently red abalone (*H. rufescens*), or as approved by the Executive Officer.~~

**pg E-6, V.B.3.b.** (last paragraph): The Discharger shall re-screen once during the five year term of this permit with the three species, if possible including a vertebrate, an invertebrate, and an aquatic plant, listed above and continue to monitor with the most sensitive species. ~~If the first suite of re-screening tests demonstrates that the same species is the most sensitive then rescreening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.~~

**pg E-7, V.B.3.c.** The Discharger shall conduct tests at a dilution series centered on the calculated effluent concentration at the edge of the zone of initial dilution. For example, with a dilution ratio of 119:1 the five dilutions are: 3.4%, 1/7%, 0.84%, 0.42%, 0.21% and 0% (Control). The “%” represents percent effluent as discharged.

**pg E-7, V.C.3.** Control and dilution water should be obtained from an unaffected area of the receiving waters. If the dilution water used is different from the culture water, a second control using culture water shall be used. If it is not practicable to collect samples from the unaffected area of the receiving water then a laboratory prepared control and dilution water should be used.

**pg E-7, V.D. Accelerated Monitoring:** Accelerated monitoring is required after exceeding the chronic toxicity effluent limit in Section IV.A.1 of this Order. Accelerated monitoring shall consist of ~~monthly~~ quarterly monitoring. The discharger may return to routine monitoring if accelerated monitoring does not exceed the chronic toxicity effluent limit in Section IV.A.1 of this Order.

**pg E-7, V.E.1.** To be prepared for responding to toxicity events, the Discharger shall prepare a generic TRE work plan within ~~90~~ 120 days of the effective date of this Order. The Discharger shall review and update the work plan as necessary to remain current and applicable to the discharge and discharge facilities.

**pg E-9, V.F.1.e.** NOECL value(s) in percent effluent;

**pg E-9, V.F.1.g.** TU<sub>c</sub> values  ~~$TU_c = NOEC/100$~~   $\left( TU_c = \frac{100}{NOEL} \right)$ ;

**pg E-9, V.F.1.i.** NOECL and LOEC values for reference toxicant test(s);

#### **Fact Sheet**

**pg F-18, IV.C.5** (third paragraph) ~~A Six chronic toxicity screening tests was were performed in 2003~~ from 2000 to 2005. Chronic toxicity results ranged from 0 to ~~0.8229~~ TU<sub>c</sub>.

#### Response 5.

We revised the TO as suggested.



SAM Comment 6.

*The Ocean Plan allows RP analysis for all Table B constituents. In the October 13, 2006 memo submitted to the RWQCB staff, SAM demonstrated there was no RP for chlorine residual, a Table B Ocean Plan constituent. As documented in that memo, SAM has an extremely high compliance rate, with only 317 minutes of excursions above 0.0 mg/l out of a possible 2,757,600 minutes in the RPA time period.*

*SAM's previous permit contains total chlorine residual performance goals. This TO proposes to change the goals to limits. However, there is no rationale provided for this change in the Fact Sheet. Based on the demonstration of no RP and therefore that effluent limits are not required, SAM requests that the proposed chlorine residual limits be deleted from the TO. Alternatively, SAM requests that chlorine residual remain in the permit as it is now as a performance goal. This is consistent with recent permits issued by the San Diego RWQCB for discharges in the vicinity of sensitive kelp bed habitat and high use recreational beaches (see two Southern Orange County Wastewater Authority permits adopted in August 2006; Order R9-2006-0054 and R9-2006-0055).*

*There is no information in the record supporting the need for new chlorine residual effluent limits. If chlorine residual limits are to be added to the permit, SAM requests that an explanation for what has changed since the 2000 permit was issued be added to the Fact Sheet explaining the need now for effluent limits. If limits are to be included in the permit, SAM also requests that the compliance determination language included in the recently adopted North San Mateo County Sanitation District WWTP permit (and other bay discharger permits since approximately 2002) be added regarding the continuous on-line monitoring of chlorine residual.*

**pg 10, Table 7. Effluent Limits**

Add footnote 4: [4] Requirement defined as below the limit of detection in standard test methods defined in the latest edition of Standard Methods for the Examination of Water and Wastewater. The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, chlorine residual and sodium bisulfite (or other dechlorinating chemical) dosage (including safety factor) and concentration to prove that chlorine residual exceedances are false positives. If convincing evidence is provided, Regional Board staff may conclude that these false positive chlorine residual exceedances are not violations of this permit limitation.

**Monitoring and Reporting Program**

**pg E-5, Table E-4. Effluent Monitoring M-001-D**

[4] Chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. When applicable, the Discharger may record discrete readings from the continuous monitoring every hour on the hour, and report, on a daily basis, the maximum concentration observed following dechlorination. Total chlorine dosage (mg/day) shall be recorded on a daily basis.

**pg E-5, Table E-4, Minimum Sampling Frequency** for Total Chlorine Residual: ~~2X/Hour~~  
every 2 hours or Continuous

Response 6.

SAM's comment is essentially that 1) they have demonstrated no RP for residual chlorine; 2) the Fact Sheet provides no rationale for restoring a residual chlorine limit to the permit instead of retaining a performance goal; 3) SAM requests that the total chlorine residual limit be deleted from the TO based on the demonstration of no RP, or that the chlorine residual performance goals be retained; 4) if chlorine residual limits are to be retained, SAM requests an explanation be added to the Fact Sheet, and that compliance determination language similar to that in the recent discharge permit for NSMCS D be added.

Our responses are as follows:

- 1) We base our finding of RP for residual chlorine on Best Professional Judgment, consistent with the Ocean Plan; the fact that SAM's treatment process includes disinfection with chlorine followed by dechlorination creates a reasonable potential (although based on plant performance, not a necessarily a likelihood) for the discharge to contribute to an excursion above the water quality objective for residual chlorine. This is not a reflection on SAM's performance or effluent per se; rather it is recognition that any process that includes the addition of a pollutant such as chlorine creates the possibility of an excursion. Because we find RP, an effluent limit is required.
- 2) We have revised the Fact Sheet Section IV.C.6, Chlorine Residual, to explain our reasoning for restoring an effluent limit for chlorine residual as follows:

**6. Total Chlorine Residual**

The Regional Water Board finds reasonable potential for Total Chlorine Residual based on Best Professional Judgement and information about the discharge and the receiving water. Specifically, the effluent is disinfected with chlorine, and then dechlorinated prior to discharge; and the effluent is discharged directly to the Monterey Bay National Marine Sanctuary. Although chlorination/dechlorination is a common and reliable process that SAM has operated effectively, it still creates a reasonable potential for the discharge to contribute to an excursion above the Total Chlorine Residual water quality objective. In addition, the Total Chlorine Residual water quality objective is established for the protection of marine aquatic life. This is a particular concern due to the need to protect the beneficial uses of the Sanctuary and in addition to comply with other Federal law prohibiting discharges to the Sanctuary that would injure Sanctuary resources or qualities.

Order No. 00-016 did not include a Total Chlorine Residual effluent limit, replacing the Total Chlorine Residual effluent limit from the previous permit with a non-enforceable Performance Goal. The previous Fact Sheet states that the Performance Goal provision was based on Best Professional Judgement, but does not explain further, and particularly does not discuss the justification for removing the previous effluent limit. The Regional Water Board does not believe that a Performance Goal for Total Residual Chlorine is sufficiently protective of the beneficial uses of the receiving water.

- 3) We are denying the request to delete the chlorine residual effluent limit from the TO, or to retain the performance goal based on the above reasons.
- 4) We have added an explanation to the Fact Sheet, as noted above, and have revised the TO to include the requested compliance determination language.

SAM Comment 7.

*The TO contains receiving water limits for areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board. Based on available information and the absence of likely shellfish habitat (e.g., rock outcroppings) in the vicinity of the outfall, SAM believes it accurate to modify the findings to state that shellfish harvesting is not applicable to the area surrounding their outfall. California Fish and Game has confirmed there are no commercial shellfish beds in the vicinity of the discharge. Discussions with the local harbor master have indicated there is a floating abalone farm within the harbor (located about 3 miles from the SAM outfall) but no shellfish harvesting beds where recreational harvesting may occur. SAM requests the TO language be revised to include language similar to that used in the North San Mateo County Sanitation District (NSMCSD) Wastewater Treatment Plant (WWTP) recently adopted Order.*

**pg 11, Section V.A.3.** ~~At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the following bacteriological objectives shall be maintained throughout the water column:~~ Shellfish harvesting receiving water quality objectives are determined not to apply in the vicinity of this Discharger's outfall, as there is no evidence to indicate the shoreline in the harbor area supports recreational shellfish harvesting. No commercial shellfish beds are in the vicinity of the discharge.

- a. ~~The median total coliform concentration shall not exceed 70 CFU, and not more than 10 percent of samples shall exceed 230 CFU.~~

Response 7.

We have revised the TO as requested.

SAM Comment 8.

*The SAM permitted flow cited in the TO should be 4 million gallons per day (MGD) average dry weather flow, as cited in the Prohibitions of the prior permit. The 15 MGD wet weather value is a design capacity not a permit limited flow value. This determination is consistent with guidance in the "Post August 2006 Permit Changes" memo by Lila Tang to permit writers stating that the average dry weather design capacity is the value to be cited as the Facility Permitted Flow. Wet weather design capacity is to be cited under Facility Design Flow. We request the following revisions to the TO to reflect this distinction that has been made in permits since August 2006.*

**Section II.A, Background.** Sewer Authority Mid-Coastside (hereinafter Discharger) is currently discharging pursuant to Order No. 00-016 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0038598. The Discharger submitted a Report of Waste Discharge, dated September 10, 2004, and applied for an NPDES permit renewal to discharge an average dry weather flow of up to 4 MGD ~~and a wet weather~~

flow of up to 15 MGD of treated wastewater from Sewer Authority Mid-Coastline Wastewater Treatment Plant (WWTP).

### III. Discharge Prohibitions

**pg 9, III. B.** Discharge rates (MGD) shall not exceed the design capacities of the treatment facility—4 MGD (average dry weather capacity determined over three consecutive dry weather months each year)—~~and 15 MGD (wet weather capacity).~~

#### Fact Sheet

**pg F-9, IV.A.2, Prohibition III.B** (No discharge in excess of design flow capacities). Order No. 00-016 prohibited flows in excess of the facility's average dry weather capacity of 4.0 MGD. ~~This Order expands on this prohibition to prohibit flows in excess of the facility's peak wet weather capacity (15 MGD). The prohibition assures adequate treatment of wastewater in all circumstances anticipated by the facility's design and, in effect, requires the Discharger to increase treatment capacities when actual flows approach/exceed current design capacity.~~

#### Response 8.

We are denying this request. The TO as written is consistent with other recent Region 2 permits (e.g., Order R2-2006-0067 for City of Pacifica, Order R2-2006-0068 for NSMCSD), and is intended to regulate and permit the wet weather peak flow, as indicated by the Fact Sheet explanation at Fact Sheet Section IV.A.2.

#### SAM Comment 9.

*SAM requests the text in the Standard Provisions section of the permit be revised to be consistent with the recently adopted NSMCSD WWTP and the "Post August 2006 Permit Changes" memo by Lila Tang. The requested revisions are shown below.*

**pg 13, Section VI.A.2, Regional Water Board Standard Provisions.** The Discharger shall comply with all applicable items of the Standard Provisions and Reporting Requirements, August 1993 (Attachment G), including any amendments thereto. Where provisions or reporting requirements specified in this Order are different from equivalent or related provisions or reporting requirements given in the Standard Provisions, the specifications of this Order shall apply. Duplicative requirements in the federal Standard Provisions in VI.A.1, above (Attachment D) and the regional Standard Provisions (Attachment G) are not separate requirements. A violation of a duplicative requirement does not constitute two separate violations.

#### Response 9.

We have revised the TO as requested.

#### SAM Comment 10.

*SAM requested several revisions to the Order and the Fact Sheet relating to sanitary sewer overflows (SSOs) and the sewer system management plan (SSMP). Specifically, SAM requested that suggested language be added to the Fact Sheet, Section II, to summarize the actions taken by SAM that are discussed in their October 20, 2006, response to USEPA's August 18, 2006,*

*NPDES compliance inspection report; and that the annual special study Infiltration and Inflow Reduction Plan submittal requirement (Section V.C.5.a) be deleted on the grounds that it is duplicative of other Permit requirements and of activities being conducted by SAM to comply with Region 2 and State Water Board waste discharge requirements, and to develop and implement the SSMP; that the corresponding section of the Fact Sheet (Fact Sheet Section VII.B.5.a) be deleted; and that Fact Sheet Section VI, Rationale for Monitoring and Reporting Requirements, be revised to include the basis for the SSO reporting requirements.*

Response 10.

We have revised the Fact Sheet, Section II, to include discussion of both SAM's compliance history with respect to SSOs and SAM's actions to comply with Regional Water Board, State Water Board, and USEPA requirements. The added text is as follows:

Between the years 2000 and 2004, SAM reported 174 sanitary sewer overflows (SSOs) from its collection system. Fifty-two of these SSOs were identified as having entered storm drains or surface waters; 19 were equal to or greater than 1,000 gallons in volume. SAM reported six SSOs that were at least 10,000 gallons in volume, and another two SSOs exceeded 9,000 gallons. From 2000 to 2004, SAM identified 14 SSOs as flowing directly to the Pacific Ocean (i.e., the MBNMS). However, wastewater that enters storm drains and creeks in SAM's service area will reach the ocean. Therefore it is possible that any of the 52 SSOs to storm drains and surface waters could have entered the MBNMS. These SSOs to surface waters and storm drains totaled a minimum of 417,800 gallons of wastewater from 2000 to 2004 (several SSOs had no volume estimate).

The Discharger has since developed and implemented various plans and policies to improve its Operation and Maintenance Program, Overflow Emergency Response Plan, Fats, Oils and Grease (FOG) Control Program, Capital Improvement Plan. In 2005, there was a marked decrease in SSO frequency and volume compared to previous years. Between January 1 and December 31, 2005, there were a total of 23 SSOs, compared to 40, 44, and 25 SSOs in 2002, 2003, and 2004, respectively. SAM reported a total spill volume of 3,562 gallons in 2005 compared to about 108,000 gallons spilled in both 2003 and 2004. In 2005, only four SSOs were equal to or greater than 100 gallons, and each of these was reported to the Regional Water Board's SSO database. The spill volumes were less in 2005 than previous years because there were no capacity or pump station related SSOs. The system successfully conveyed all wastewater without a capacity related spill during rainy weather in early 2005 and through some heavy storms in December 2005. Only two SSOs in 2005 reached surface waters and both of these were to the golf course lake in Ocean Colony in Half Moon Bay.

The Regional Water Board, the State Water Board, and the MBNMS have taken enforcement or regulatory actions in response either to SAM's SSOs, or to address SSOs on a regional or statewide basis. In 2003, the National Oceanic and Atmospheric Administration (NOAA), the agency which has jurisdiction over the Monterey Bay National Marine Sanctuary, issued a warning letter to the Discharger in response to SSOs that occurred on or about May 5-7, 2000. On November 15, 2004, the Regional Water Board sent sewer system authorities in Region 2 a letter pursuant to Section 13267 of the California Water Code, *New Requirements for Reporting of Sanitary Sewer Overflows,*

which strengthened requirements for SSO reporting and subsequent monitoring, and also first required each sewer system develop and implement a system-specific Sewer System Management Plan (SSMP). As of May 2, 2006, the State Water Board adopted Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*, which expanded on the requirement for development and implementation of system-specific SSMPs.

We have also deleted Section V.C.5.a, Infiltration and Inflow Reduction Plan, as requested, and deleted the corresponding section of the Fact Sheet (Fact Sheet Section VII.B.5.a); and revised Fact Sheet Section VI, Rationale for Monitoring and Reporting Requirements, as suggested. This revision is shown below:

40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The MRP, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. For SSO reporting, the Discharger is subject to the Regional Water Board reporting requirements set forth in a letter issued on November 15, 2004, pursuant to Water Code Section 13267 until such time as the statewide on-line reporting system becomes operational, at which time the Discharger will report SSOs under the Monitoring and Reporting Program No. 2006-0003. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

*SAM Comment 11.*

*SAM requests that the Fact Sheet be updated to reflect that a dilution study was completed by Carollo Engineers. This was documented in a report titled "Ocean Outfall Flow Characteristics Study, Letter Report to Mr. Gary Vallado of the Sewer Authority Mid-Coastside from Michael Britten, Associate of Carollo Engineers May 2, 1995." Additional modifications were made to the diffusers since 1995. SAM is in the process of documenting these later changes and what if any changes they may have made to the 310:1 initial dilution modeling results achieved by the outfall based on the 1995 modifications.*

Response 11.

The information on the Carollo dilution study has been added to the Fact Sheet, Section II.B, Discharge Points and Receiving Waters. The revised text is as follows:

**A. Discharge Points and Receiving Waters**

Treated wastewater is discharged west of Pilarcitos Creek to the Pacific Ocean, a water of the United States, through a discharge pipe and a submerged diffuser extending approximately 1,900 feet from the shoreline and terminating at a depth of approximately 37 feet (-37 MLLW) (Discharge Point 001). The discharge pipe is constructed laying on ballast rock on the sea floor; it is covered with sand much of the year due to seasonal sand shifting. The diffuser consists of the westernmost 238 feet of the discharge pipe, with 35 3-inch iron risers extending vertically from the discharge pipe approximately 7 feet apart. Treated wastewater is discharged through the risers. Recent modifications to the diffuser structure included adding duckbill valves to the risers. The wastewater is discharged directly into

Monterey Bay National Marine Sanctuary (MBNMS). The Discharger reports that the discharge achieves an initial dilution ratio of 119:1.

The Discharger requested the Regional Water Board increase the authorized initial dilution to 310:1 in the May 21, 1999, NPDES Permit Application (ROWD) transmittal letter Item 5. The July 14, 1998, Antidegradation Analysis by K. P. Lindstrom, Inc. for the SAM plant expansion from 2.0 to 4.0 MGD, included as Attachment D to the May 21, 1999, ROWD, used an initial dilution of 215:1 (average of 119:1 and 310:1) in its calculations of water quality impacts. A 1995 Carollo Report “Ocean Outfall Flow Characteristics Study, Letter Report to Mr. Gary Vallado of the Sewer Authority Mid-Coastside from Michael Britten, Associate of Carollo Engineers, May 2, 1995,” was included as Attachment E to the May 21, 1999, ROWD. The letter report references the original construction plans “Unit 4: Outfall and Pumping Facilities,” dated February 1979. The outfall was inspected by divers in October 1994 and found to have all the vertical risers sheared off and 31 of the 35 diffuser ports partially filled with sand. The sand was cleaned out by the divers. New 3-inch risers with check valves (to keep out sand) were installed in 1995. Prior to being upgraded in 1995, the SAM outfall was estimated to have a conservative (worst case) initial dilution of 119:1. The dilution ratio of the upgraded outfall was estimated by Carollo Engineers using the USEPA CORMIX Model Version 3.0 to provide an initial dilution of 310:1.

SAM Comment 12.

*SAM comments that the receiving water monitoring locations in the TO, approximately 100 feet away from the diffuser midpoint, are not likely to provide useful information about the location of the zone of initial dilution or the rate and magnitude of subsequent dilution. SAM proposes alternative locations, similar to those used in Region 9’s recent permit for the South Orange County Wastewater Authority (SOCWA) Aliso Creek Ocean Outfall, as follows:*

*R-001 – R-004 At the corners of a 1,000 ft x 1,000 ft square having one side parallel to shore and the intersection of its diagonal located at the center of the outfall diffuser section. Station R-001 shall be located at the northeastern corner and Stations R-002 through R-004 at successive corners in a clockwise direction. R-005 A reference location approximately 7,500 ft north of the outfall parallel to the shoreline at Magellan Avenue.*

*SAM also requests that the receiving water monitoring frequency be annual, consistent with the recent NSMCS D permit; and that MRP Table E-5, Receiving Water Monitoring Requirements, and Fact Sheet Section VI.D.1, Receiving Water Monitoring, be revised accordingly.*

Response 12.

We point out that the purpose of receiving water monitoring is to determine compliance with receiving water limitations, rather than to provide data about the zone of initial dilution or the rate and magnitude of subsequent dilution. Other than that, we agree with the proposed approach to establishing receiving water monitoring locations. We have revised MRP Table E-1, Monitoring Station Locations, as follows:

**Table E-1. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
Influent	INF-001 (A-001)	At any point in the treatment facility’s headworks at which all waste tributary to the system is present, preceding any phase of treatment, and exclusive of any return flows or process side streams.
Effluent	M-001 (E-001)	At any point in the treatment works between the point of discharge and the point at which all waste tributary to the outfall is present and following dechlorination.
	M-001D (E-001D)	At any point in the treatment facilities after disinfection is complete and prior to dechlorination.
Receiving Waters	<u>R-001 through R-004</u>	<u>At the corners of a 500 ft x 500 ft square having one side parallel to the shoreline. Station R-001 shall be located at the northeastern corner, and stations R-002 through R-004 shall be located at successive corners in a clockwise direction.</u>
	R-001 (C-1)	100 feet north of midpoint of diffuser area
	R-002 (C-2)	100 feet south midpoint of diffuser area
	R-003 (C-3)	100 feet east of east end of diffuser area
	R-004 (R)	100 feet west of west end of diffuser area
	<u>R-005</u>	<u>A reference location approximately 7,500 ft north of the outfall parallel to the shoreline at Magellan Avenue.</u>

We have also revised corresponding Fact Sheet Section VI.D.1, Surface Water, as follows:

1. **Surface Water.** The MRP retains most monitoring requirements at new monitoring locations ~~C~~R-1 through C-3~~R-5 and R~~; however, specific receiving water monitoring requirements for toxic pollutants, as listed at 40 CFR 401.15 pursuant to section 307(a)(1) of the Clean Water Act, are not included in the MRP.

We are denying the request to reduce the receiving water monitoring frequency. The quarterly frequency required by the TO is needed to establish a baseline at the new monitoring locations.

SAM Comment 13.

*SAM requests that MRP Section XI.B, Monitoring Locations – Miscellaneous Observations, be deleted in order to be consistent with the deletion of the land monitoring stations from MRP Table E-1, Monitoring Station Locations, and with the recent issued permit for NSMCSD.*

Response 13.

The former MRP Section XI.B, Monitoring Locations – Miscellaneous Observations, has been deleted as requested.

SAM Comment 14.

*SAM requests the following minor revisions.*

**pg B-1, map label:** ~~Mid-Coastside~~ Sewer Authority Mid-Coastside WWTP

**pg E-4, Table E-3 Effluent Monitoring M-001:** Delete Sample Type C-24 from the Priority Pollutants row {some analyses require grab samples }



**pg E-3, II.A.1. Table E-2. Influent Monitoring**

~~[4] During any day when bypassing occurs from any treatment unit(s) in the plant or from the outfall, the monitoring program for the influent shall include, in addition to the above schedule for sampling, measurement, and analysis, composite samples for BOD and TSS for the duration of the bypass or 24 hours, whichever is shorter. (Would provide minimally useful information)~~

**Attachment G, pg G-1, Third Bullet:** Delete since not applicable to ocean dischargers.

Response 14.

We have revised the map label of Attachment B, Map, as requested.

We have revised the priority pollutant row and Footnote 12 of MRP Table E-3, Effluent Monitoring M-001, as follows:

**Table E-3. Effluent Monitoring M-001**

Parameter	Units <sup>[1]</sup>	Sample Type <sup>[2]</sup>	Minimum Sampling Frequency	Required Analytical Test Method <sup>[3]</sup>
Priority Pollutants <sup>[11]</sup>	µg/L	<del>C-24</del> <sup>[12]</sup>	1X / Year	<sup>[12]</sup>

[12] Analytical method shall be as specified in Appendix III of the Ocean Plan (2005); sample type shall be as needed for the specified analytical method.

We have revised Attachment G consistent with the NSMCSD permit as follows:

**ATTACHMENT G – REGIONAL WATER BOARD ATTACHMENTS**

The following documents are part of this Order but are not physically attached due to volume. They are available on the Internet at:

<http://www.waterboards.ca.gov/sanfranciscobay/Download.htm>.

- Self-Monitoring Program, Part A (August 1993)
- Standard Provisions and Reporting Requirements, August 1993
- ~~August 6, 2001 Regional Water Board staff letter, “Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy”~~
- Regional Water Board Resolution No. 74-10

We are denying the request to delete Footnote 4 from MRP Table E-2, Influent Monitoring. In the event that bypassing occurs, the required monitoring would be needed to determine compliance with the technology-based 85% removal requirement for BOD and TSS.

**II. Monterey Bay National Marine Sanctuary**

Below are the responses to the MBNMS comments on SAM’s TO. MBNMS provided 15 comments.

MBNMS Comment 1.

Compliance Summary:

*Table F-3, page F-4, entitled “Compliance Summary” seems to indicate that there were only two instances of exceedances for the period ranging 2002-2005, with no data for the current year. This seems contrary to Sanctuary records regarding this facility, which note at least seventy-five spills between 2000-2004, which we believe to be in excess of 370,000 gallons.*

*After discussing this issue with RWQCB staff, we understand that the “Compliance Summary” does not apply to the collection system (i.e., sewer system), and therefore does not represent overflows that did not emanate from the treatment plant itself. The Sanctuary Program is concerned with the number of overflows this treatment plant has experienced over the past few years, regardless of the origin of the overflow. Therefore we would appreciate a more comprehensive Compliance Summary be developed to accurately depict past performance history of this Discharger, regardless of the location of the spill. Additionally, it would be appropriate to indicate how past non-compliance issues have been dealt with in this Tentative Order.*

**Response 1.** MBNMS is correct that Table F-3 in the Fact Sheet applies only to concentrations of pollutants in SAM effluent that violate SAM’s permit effluent limits, and does not reflect SSOs from SAM’s collection system. However, a narrative description of SSO violations and compliance efforts has been added to Fact Sheet Section II.D. The revised section is shown below:

**B. Compliance Summary**

The following table summarizes the number of effluent limitation exceedances for Discharge Point 001 during the previous permit period.

**Table F-3. Compliance Summary**

Parameter <sup>[1]</sup>	Number of Exceedances					
	2000	2001	2002	2003	2004	2005
Total Suspended Solids (Monthly average)		1				
Total Suspended Solids (Weekly Average )		2				
Total Suspended Solids (Daily Maximum)		4				
Total Suspended Solids (Percent Removal)		1				
Settleable Solids (Monthly Average)		1				
Settleable Solids (Weekly Average)		1				
Settleable Solids (Instantaneous)		1	1			
BOD <sub>5</sub> (Weekly Average)					1	
Total Coliform Bacteria (Moving Median)	6					
Total Coliform Bacteria (Daily Maximum)	1					

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[1] Parameters not listed did not exceed effluent limitations during the period from 3/2000 – 12/2005.

Enforcement actions taken during the term of Order No. 00-016 include Order No. 01-033, consisting of Mandatory Minimum Penalties (MMPs) totaling \$21,000; and Order No. 01-128, consisting of MMPs totaling \$30,000. Prior to this, the Regional Water Board issued Cease and Desist Order 95-150 requiring treatment system upgrades. The Discharger completed these upgrades in 1999. The CDO was rescinded by Order No. 00-016.

Between the years 2000 and 2004, SAM reported 174 sanitary sewer overflows (SSOs) from its collection system. Fifty-two of these SSOs were identified as having entered storm drains or surface waters; 19 were equal to or greater than 1,000 gallons in volume. SAM reported six SSOs that were at least 10,000 gallons in volume, and another two SSOs exceeded 9,000 gallons. From 2000 to 2004, SAM identified 14 SSOs as flowing directly to the Pacific Ocean (i.e., the MBNMS). However, wastewater that enters storm drains and creeks in SAM's service area will reach the ocean. Therefore it is possible that any of the 52 SSOs to storm drains and surface waters could have entered the MBNMS. These SSOs to surface waters and storm drains totaled a minimum of 417,800 gallons of wastewater from 2000 to 2004 (several SSOs had no volume estimate).

The Discharger has since developed and implemented various plans and policies to improve its Operation and Maintenance Program, Overflow Emergency Response Plan, Fats, Oils and Grease (FOG) Control Program, Capital Improvement Plan. In 2005, there was a marked decrease in SSO frequency and volume compared to previous years. Between January 1 and December 31, 2005, there were a total of 23 SSOs, compared to 40, 44, and 25 SSOs in 2002, 2003, and 2004, respectively. SAM reported a total spill volume of 3,562 gallons in 2005 compared to about 108,000 gallons spilled in both 2003 and 2004. In 2005, only four SSOs were equal to or greater than 100 gallons, and each of these was reported to the Regional Water Board's SSO database. The spill volumes were less in 2005 than previous years because there were no capacity or pump station related SSOs. The system successfully conveyed all wastewater without a capacity related spill during rainy weather in early 2005 and through some heavy storms in December 2005. Only two SSOs in 2005 reached surface waters and both of these were to the golf course lake in Ocean Colony in Half Moon Bay.

The Regional Water Board, the State Water Board, and the MBNMS have taken enforcement or regulatory actions in response either to SAM's SSOs, or to address SSOs on a regional or statewide basis. In 2003, the National Oceanic and Atmospheric Administration (NOAA), the agency which has jurisdiction over the Monterey Bay National Marine Sanctuary, issued a warning letter to the Discharger in response to SSOs that occurred on or about May 5-7, 2000. On November 15, 2004, the Regional Water Board sent sewer system authorities in Region 2 a letter pursuant to Section 13267 of the California Water Code, *New Requirements for Reporting of Sanitary Sewer Overflows*, which strengthened requirements for SSO reporting and subsequent monitoring, and also first required each sewer system develop and implement a system-specific Sewer System Management Plan (SSMP). As of May 2, 2006, the State Water Board adopted Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary*

Sewer Systems, which expanded on the requirement for development and implementation of system-specific SSMPs.

MBNMS Comment 2.

*Related to the above, is the issue of prevention. The TO should address how the Discharger plans to prevent future spills, and should identify management practices that will be put in place to ensure future compliance. To simply re-issue this NPDES permit without requiring robust prevention measures protecting water quality would be irresponsible.*

*It is our understanding that the Sewer Authority Mid-Coastside recently participated in an engineering study that examined overflow problems associated with this treatment plant. There are a myriad of reasons why this treatment plant may be experiencing such a high number of recurring sewage spills, including runoff issues, pipe sizing inadequacies, pump facility problems, infiltration issues, outdated lateral pipes serving residential areas, restaurant-generated grease blockages, manhole deficiencies, and other problems which limit pipe capacity, and as a result inflict sewage spills.*

*This TO should include requirements which aggressively address the above problems, and at a minimum should include education and outreach measures, and require a schedule for correcting existing deficiencies at this treatment plant.*

Response to Comment 2.

The TO Section VI.C.4.(b), Sanitary Sewer System Overflows and Sewer System Management Plan, incorporates the requirements of the General Waste Discharge Requirements (WDR) for Collection System Agencies (Order No. 2006-0003 DWQ) by reference. This WDR includes requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows; and requires the Discharger to develop and implement a SSMP, as initially required by the Regional Water Board's November 2004 13267 letter. The WDR requires that the SSMP be developed over a three-year period and includes a schedule to complete specific elements of the SSMP. The completed SSMP must include the following elements:

- Routine preventative operation and maintenance procedures to prevent SSOs from the causes MBNMS notes in their comment; and must also include
- A plan to rehabilitate and replace deficient sewer pipes and other sewer infrastructure (e.g., manholes, pumps);
- Development of an emergency response plan;
- A plan to evaluate system capacity and ensure its adequacy, including needed capital improvements.

SAM is in the process of either developing or implementing these measures. Specifically, SAM has:

- Improved its preventative maintenance program to include purchase of a new sewer cleaning truck equipped with CCTV;

- Cleaned the entire collection system (including all member agency systems) over a three year period;
- Implemented annual hot spot cleaning and a coordinated repair program for all member agencies;
- Implemented a Fats, Oils and Grease (FOG) Control Program to control grease blockages;
- Adopted a Sanitary Sewer Overflow Management and Response Program to ensure prompt and thorough responses to SSOs.

Finally, the Discharger is implementing a Capital Improvement Plan, which includes installation of three wet weather storage tanks (done in 2005), infiltration and inflow studies; and development of a long term plan that includes long term capacity improvements.

Further information on the status of SAM'S collection system and SSO prevention and mitigation measures can be found in USEPA's recent inspection report (USEPA Region 9, *NPDES Compliance Evaluation Report, Sewer Authority Mid-Coastside, Half Moon Bay, Granada Sanitary District, Montara Water and Sanitary District*, August 18, 2006), and in SAM's response (Sewer Authority Mid-Coastside, *Summary Response to August 18, 2006, U.S. Environmental Protection Agency NPDES Compliance Report*, October 20, 2006). USEPA's inspection report includes substantial background and current information on SAM's sewer infrastructure and current and past operations, as well as several recommendations for improvement. SAM's response includes steps taken to incorporate and implement USEPA's recommendations. Copies of both of these reports will be provided to MBNMS.

MBNMS Comment 3.

Notification

*The regulations for the Monterey Bay National Marine Sanctuary at 14 CFR Part 922.132 prohibit discharges from within the boundaries of the MBNMS. Discharges occurring outside the MBNMS that subsequently enter and injure Sanctuary resources or qualities are similarly prohibited.*

*In order to protect the resources and qualities of the MBNMS, we request to be copied on written correspondence from the permittee to the Board. "Section D. Other Reports" requires that by February 1<sup>st</sup> of each year, the Discharger shall submit an annual report to the Regional Water Board covering the previous calendar year. Please require that the Discharger also send a copy of this report to the MBNMS office.*

*The Discharger should immediately notify the Sanctuary Program Half Moon Bay office at (650) 678-4943 for any spills that are likely to enter ocean waters. We also request to be copied on written correspondence from the permittee, and ask that for spills larger than 1,000 gallons, or that occur where public contact is likely, the Discharger send a written notification to our office within 5 days. All reports shall be sent to the individual listed below:*

*Permit Coordinator  
Monterey Bay National Marine Sanctuary  
299 Foam Street*

*Monterey, CA 93940*

Response 3.

Section VI.B.2 of the TO has been revised as follows:

2. **Monterey Bay National Marine Sanctuary (MBNMS):** In addition to reporting to the Regional Water Board, the Discharger shall also concurrently notify the MBNMS offices in Monterey, in writing, about any violations of effluent limitations, receiving water limitations, and sludge management practices. The MBNMS shall be notified at:

Permit Coordinator  
Monterey Bay National Marine Sanctuary  
209 Foam Street  
Monterey, CA 93940  
(650) 678-4943

Section VI.C.4.b of the TO has been revised as follows:

**b. Sanitary Sewer Overflows and Sewer System Management Plan**

The Discharger's collection system is part of the facility that is subject to this Order. As such, the Discharge must properly operate and maintain its collection system (Attachment D, Standard Provisions - Permit Compliance, subsection I.D). The Discharger must report any noncompliance (Attachment D, Standard Provision - Reporting, subsections V.E.1 and V.E.2), and mitigate any discharge from the Discharger's collection system in violation of this Order (Attachment D, Standard Provisions - Permit Compliance, subsection I.C). The General Waste Discharge Requirements for Collection System Agencies (Order No. 2006-0003 DWQ) has requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. While the Discharger must comply with both the General Waste Discharge Requirements for Collection System Agencies (General Collection System WDR) and this Order, the General Collection System WDR more clearly and specifically stipulates requirements for operation and maintenance and for reporting and mitigating sanitary sewer overflows. Implementation of the General Collection System WDR requirements for proper operation and maintenance and mitigation of spills will satisfy the corresponding federal NPDES requirements specified in this Order. Following reporting requirements in the General Collection System WDR will satisfy NPDES reporting requirements for sewage spills. Compliance with these requirements will also satisfy the federal NPDES requirements specified in this Order. Furthermore, the Discharger shall comply with the schedule for development of sewer system management plans (SSMPs) as indicated in the letter issued by the Regional Water Board on July 7, 2005, pursuant to Water Code Section 13267. Until the statewide on-line reporting system becomes operational, the Discharger shall report sanitary sewer overflows electronically according to the Regional Water Board's SSO reporting program. The Discharger

shall also immediately notify the Monterey Bay National Marine Sanctuary of any SSOs likely to enter ocean waters at (650) 678-4943, and shall send a written notification within five days of SSOs larger than 1,000 gallons or that occur where public contact is likely to the following address:

Permit Coordinator  
Monterey Bay National Marine Sanctuary  
209 Foam Street  
Monterey, CA 93940

We have revised MRP Section X.D, Other Reports, to require SAM to copy MBNMS on the annual report as follows:

**D Other Reports**

1. **Annual Reports.** By February 1<sup>st</sup> of each year, the Discharger shall submit an annual report to the Regional Water Board covering the previous calendar year. The report shall contain the items described in *Standard Provisions and Reporting Requirements, and SMP Part A, August 1993* (Attachment G).

A copy shall also be sent to the MBNMS at the following address:

Permit Coordinator  
Monterey Bay National Marine Sanctuary  
209 Foam Street  
Monterey, CA 93940

MBNMS Comment 4.

*Environmental Impacts: the TO should include background information summarizing any environmental impact analyses that were conducted in preparation for issuance of this NPDES permit.*

Response 4.

The issuance of NPDES permits for existing sewage treatment facilities is exempt from CEQA per Section 13389 of the California Code of Regulations (CCR). Therefore no environmental impact statements or reports were filed in preparation for this permit. The Discharger filed a standard NPDES permit package for publicly owned treatment works treating domestic sewage consisting of USEPA Forms 1 and 2A, and a State of California Form 200.

MBNMS Comment 5.

*Typographical Errors: Page 5, "Facility Description," should be listed as II.B. Page 11 indicates an incorrect coliform limit of 1000 CFU/mL – this should be 1000 CFU/100 ml.*

Response 5.

The typographical errors noted above have been corrected.

MBNMS Comment 6.

*Facility Description: the document should include information on Page 5 describing the configuration of the pipe system, including whether it lays on the sea floor or is buried.*

Response 6.

The Facility Description has been revised to include the following underlined text:

Treated wastewater is discharged west of Pilarcitos Creek to the Pacific Ocean, a water of the United States, through a discharge pipe and a submerged diffuser extending approximately 1,900 feet from the shoreline and terminating at a depth of approximately 37 feet (-37 MLLW). The discharge pipe is constructed laying on ballast rock on the sea floor; it is covered with sand much of the year due to seasonal sand shifting. The diffuser consists of the westernmost 238 feet of the discharge pipe, with 35 3-inch iron risers extending vertically from the discharge pipe approximately 7 feet apart. Treated wastewater is discharged through the risers. Recent modifications to the diffuser structure included adding duckbill valves to the risers. The discharger reports that the discharge receives a dilution ratio of 119 to 1. The discharge is located within the Monterey Bay National Marine Sanctuary. Sludge is treated by anaerobic digestion and dewatered by belt filter press. Sludge is transported to a sanitary landfill for disposal. Attachment B provides a map of the area around the facility. Attachment C provides a flow schematic of the facility.

A similar revision has been made to Fact Sheet Section II.B, Discharge Points and Receiving Waters.

MBNMS Comment 7

*Discharge Prohibitions: Page 9, Section III.F refers to “waters of the United States.” Please also include a specific reference to the waters of the Monterey Bay National Marine Sanctuary, a federally protected area.*

Response 7.

A specific reference to the MBNMS in Section III.F is not necessary or appropriate. Instead, we have revised Fact Sheet Section IV.A.6 to state that MBNMS is specifically included by the term “waters of the United States.” The revised Fact Sheet text is as follows:

6. Prohibition III.F (No sanitary sewer overflow resulting in a discharge of untreated or partially treated wastewater to waters of the United States). The Clean Water Act prohibits the discharge of wastewater to surface waters except as authorized under an NPDES permit. POTWs must achieve secondary treatment, at a minimum, and any more stringent limitations that are necessary to achieve water quality standards. (33U.S.C. §1311(b)(1)(B) and (C).) Thus, an SSO that results in the discharge of raw sewage, or sewage not meeting secondary treatment, to surface waters is prohibited under the Clean Water Act. The reference to “waters of the United States” specifically includes the Monterey Bay National Marine Sanctuary.



MBNMS Comment 8

*Reopener Provisions: Page 13, please include a reopener provision based on the outcome of any Federal administrative or judicial decision or settlement, as future federal actions may require modifications that may affect this Order.*

Response 8.

Section VI.C.1, Reopener Provisions, has been revised as follows:

**1. Reopener Provisions.**

The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances:

- a. If present or future investigations demonstrate that the discharge governed by this Order will have, or will cease to have, adverse impacts on water quality and/or beneficial uses of the receiving waters.
- b. As new or revised WQOs come into effect for surface waters of the State (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order will be modified as necessary to reflect updated WQOs.
- c. If translator or other water quality studies provide a basis for determining that a permit condition(s) should be modified.
- d. An administrative or judicial decision on this Order or a separate NPDES permit or WDR that addresses requirements similar to this discharge; and
- e. As authorized by law.

The Discharger may request permit modification based on b, c, d, and e above. The Discharger shall include in any such request an antidegradation and antibacksliding analysis.

MBNMS Comment 9.

*Construction, Operations and Maintenance Specifications: Page 14, Section VI.C.3.a, requires the discharger to be ‘adequately staffed,’ however there is no explanation as to what this entails. Please apply more specificity to this section.*

Response 9.

The term “adequately staffed” means staffed by a sufficient number of properly trained and certified personnel to **“provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the Discharger’s service responsibilities”**, as stated in this Section. It is the Discharger’s responsibility to determine the adequate staffing level to meet this requirement; however, the Discharger and Discharger’s personnel must comply with the requirements of CCR Title 23, Division 3, State Water Resources Control Board and Regional Water Quality Control Boards, Chapter 26, *Classification of Wastewater Treatment Plants and Operator Certification*. We prefer to avoid duplicating this requirement in the permit itself; however, we have revised the Fact Sheet Section

VII.B.3.a, Wastewater Facilities, Review and Evaluation, Status Reports, to explain this requirement as follows:

- a. **Wastewater Facilities, Review and Evaluation, Status Reports.** This provision is based on the previous permit and the Basin Plan. It is the Discharger's responsibility to determine the necessary staffing, supervision, financing, operation, maintenance, repairs and upgrades to meet the requirements of this section. Training, qualification and certification requirements for staff and supervisors are established by CCR Title 23, Division 3, State Water Resources Control Board and Regional Water Quality Control Boards, Chapter 26, Classification of Wastewater Treatment Plants and Operator Certification.

MBNMS Comment 10.

*Other Special Provisions: Page F-22, the document should clarify the length over which diffusion occurs, and should explain how the dilution ratio of 119:1 was reached.*

Response 10.

Description of the discharge pipe and the length over which diffusion occurs has been included in the Facility Description in both the TO and the Fact Sheet (see Response to Comment 6 above).

The dilution ratio was last calculated by Carollo Engineers in 1995 as part of a project to repair damage to the diffuser structure (specifically, vertical risers had been sheared off and numerous ports clogged with sand). Based on the USEPA CORMIX model and the original design plans with 3-inch vertical risers, Carollo calculated an initial dilution ratio of 310:1. However, the previous dilution ratio of 119:1 was retained to be conservative. Further modifications have been made to the diffusion structure (i.e., addition of duckbill valves to the risers), and SAM will be required to submit further verification of the dilution factor within one year of the permit being effective.

The Fact Sheet Section VII.B.5.b has been revised as follows:

- b. Effluent limits for Table B pollutants in this Order are calculated using the previously granted initial dilution factor of 119:1 (i.e., 119 parts ocean water to one part effluent), which was based on data submitted by the Discharger to support a previous permit for this discharge, Order No. 84-059. The most recent calculation of a dilution factor was performed by Carollo Engineers in May 1995 using the USEPA CORMIX Model Version 3.0, assuming that the discharge pipe and diffuser structure were constructed according to the original construction plans. Carollo's calculation found an initial dilution ratio of 310:1, but the previous 119:1 to ratio was retained to be conservative. The dilution factor needs to be verified and documented to ensure that the previous conditions and assumptions are still consistent with current operations. This provision requires the Discharger to provide documentation within one year of the date the Order becomes effective.

MBNMS Comment 11.

*Inspection and Entry:* Page D-2, the document states that the Discharger shall allow the Regional Water Board, State Water Board, and the United States Environmental Protection Agency to enter the Dischargers premises; have access to records; inspect and photograph operations; and sample or monitor the facility for the purposes of assuring this NPDES permit is in compliance. We request that the RWQCB include NOAA's National Marine Sanctuary, and NOAA's Office of Law Enforcement to this list of regulatory agencies.

Response 11.

MBNMS refers to Attachment D, Standard Provisions, which contains Federal standard provisions for all NPDES permits. We do not revise these federal requirements. The Clean Water Act and Porter Cologne Water Quality Control Act grant the Regional Water Board, State Water Board, and USEPA broad rights to access and inspect the facility. This access is critical to allow these agencies to ensure permit compliance. Without this ability, our enforcement authorities would be far weaker. In contrast, the MBNMS does not have any direct permit enforcement responsibilities beyond those afforded other third parties. Therefore, applicable water quality laws and regulations do not grant such access to MBNMS. Moreover, these laws do not grant the Regional Water Board, State Water Board, or USEPA the ability to delegate this authority and responsibility to other agencies.

MBNMS Comment 12.

*Bypass: Page D-2 and D-3:* Please clarify in this section how wet weather flows pertain to bypass, upset, or entry. It is unclear from this section if this is allowed or not.

Response 12.

MBNMS refers to Attachment D, Standard Provisions, which contains Federal standard provisions for all NPDES permits. We do not revise these federal requirements. However, we are pleased to clarify by way of this response that the prohibition against bypass, regulations regarding the use of 'upset' as an affirmative defense against non-compliance, and the requirement to allow the Regional Water Board, State Water Board, USEPA, and/or their authorized representatives the right of entry and inspection, are unaffected by wet weather flows and apply at all times.

MBNMS Comment 13

*Receiving Water Monitoring Requirements:* Page D-10, this table indicates that Fecal Coliform will be monitored quarterly, whereas Enterococcus will be monitored annually. However there is not explanation elucidating the rationale for what intervals are sufficient for monitoring purposes. Also, there seems to be no monitoring requirements for receiving waters after spills. Please include a schedule for post-spill monitoring or include clarification as to why you believe this to be unnecessary.

Response 13

We believe the MBNMS is referring to Page E-10 (Attachment E, MRP) rather than D-10.

The receiving water monitoring requirements and frequencies in Table E-5 on page E-10 of the TO are typical receiving water monitoring frequencies in our NPDES permits. We think they are

adequate based on past experience and because the effluent will be monitored prior to reaching the receiving water much more frequently. The effluent will be monitored for enterococcus bacteria weekly (Table E-4), which justifies an annual monitoring frequency instead of quarterly. Compliance with the enterococcus bacteria effluent limit should ensure compliance with the enterococcus bacteria receiving water limit from Section II.B.1a of the California Ocean Plan because the effluent limit is calculated based on the receiving water limit and a conservative initial dilution at discharge (this calculation is shown in the Fact Sheet Section IV.C.4, WQBEL Calculation).

Although there are no post-SSO receiving water monitoring requirements in the TO, SAM is required to monitor receiving waters after SSOs by our letter *New Requirements for Reporting Sanitary Sewer Overflows*, (November 15, 2005). A copy of this letter is available at the following internet address:

[http://www.waterboards.ca.gov/sanfranciscobay/news\\_items/sso%20reporting%20requirements%20nov%2011%202004.pdf](http://www.waterboards.ca.gov/sanfranciscobay/news_items/sso%20reporting%20requirements%20nov%2011%202004.pdf).

The monitoring requirements include estimation of spill volume; visual monitoring of the receiving water for abnormal conditions; for SSOs that may imminently and substantially endanger human health or cause fish kills, collection of samples from the point of discharge and well upstream and downstream; and analysis of these samples for ammonia, dissolved oxygen, and bacteria. We prefer to avoid duplicating requirements of other Orders or regulatory letters in NPDES permits.

MBNMS Comment 14

*Historic Effluent Limitations and Monitoring Data: Page F-4, please explain in this section the protocol for situations when the “highest measured max” exceeds the “effluent limitation max”*

Response 14.

Any exceedance of an effluent limitation constitutes a violation of the discharge permit, and is subject to enforcement action as specified in CCR 13385, including mandatory minimum penalties of \$3,000 per violation, or administrative civil liability penalties of up to \$10,000 per day on which the violation occurs. More substantial penalties may be imposed by the Superior Court. The “highest measured max,” if it exceeds the effluent limitation, is treated as any other violation of the permit limits. Table F-2, Historic Effluent Limitations and Monitoring Data, is intended only to provide a summary of the Discharger’s performance in meeting the effluent limits of the previous permit.

MBNMS Comment 15

*Receiving Water Monitoring: Page F-21, the document states that “... specific monitoring requirements for toxic pollutants are not included in the MRP.” Please include a parenthetical description after ‘toxic pollutants’ to state “as defined by the appropriate statute,” whatever that may be.*

Response 15

Toxic pollutants are defined by the Clean Water Act as “any pollutant listed as toxic under section 307(a)(1), or, in the case of ‘sludge use or disposal practices’, any pollutant identified in regulations implementing section 405(d) of the Clean Water Act”. Toxic pollutants are listed at

40 CFR 401.15, pursuant to section 307(a)(1) of the Clean Water Act. We have revised Section VI.D.1, Receiving Water Monitoring, as follows:

#### **D. Receiving Water Monitoring**

1. **Surface Water.** The MRP retains most monitoring requirements at new monitoring locations ~~CR-1 through CR-5 and R~~; however, specific receiving water monitoring requirements for toxic pollutants, as listed at 40 CFR 401.15 pursuant to section 307(a)(1) of the Clean Water Act, are not included in the MRP.

### **III Editorial Changes**

E.1 Fact Sheet Section IV.A, Discharge Prohibitions, has been edited to be consistent with Section III, Discharge Prohibitions, of the Order as follows:

#### **A. Discharge Prohibitions**

1. Prohibition III.A (No discharge except as contemplated by this Order and/or as described by the Discharger). This prohibition is based on CWC Section 13260, which requires submittal of a ROWD, including all information required by the Regional Water Board, by any person discharging waste to waters of the State. Discharges not described by the Discharger in its ROWD, and therefore not contemplated by the Regional Water Board in issuing this Order, are viewed as unauthorized discharges to waters of the State.
2. Prohibition III.B (No discharge in excess of design flow capacities). Order No. 00-016 prohibited flows in excess of the facility's average dry weather capacity of 4.0 MGD. This Order expands on this prohibition to prohibit flows in excess of the facility's peak wet weather capacity (15 MGD). The prohibition assures adequate treatment of wastewater in all circumstances anticipated by the facility's design and, in effect, requires the Discharger to increase treatment capacities when actual flows approach/exceed current design capacity.
- ~~3. Prohibition III.C (No discharges which are not authorized by an NPDES permit). This prohibition reflects the CWA's (Section 301(a)) prohibition against the discharge of pollutants except in compliance with CWA permitting requirements.~~
4. Prohibition III.D (No discharge of sludge or untreated supernatant). This prohibition is based on Ocean Plan prohibitions against the discharge of sludge or untreated sludge supernatant to ocean waters (Ocean Plan Section III.H.3).
- ~~5. Prohibitions III.E through III.I (No discharge of substances that may degrade the receiving water environment). These prohibitions are based on the Ocean Plan Program of Implementation - General Provisions (Ocean Plan Section III.A).~~
- ~~6. Prohibition III.J (No discharge of radiological, chemical, or biological warfare agents or high-level radioactive substances). This prohibition is based on the Ocean Plan~~

~~prohibition against the discharge of radiological, chemical, or biological warfare agents (Ocean Plan Section III.H.1).~~

74. ~~Prohibition III.K-D~~ (No discharge to Areas of Special Biological Significance). This prohibition is based on the Ocean Plan prohibition against discharges of treated wastewater to Areas of Special Biological Significance (Ocean Plan Section III.H.2). Discharges must be located a sufficient distance from designated areas to ensure maintenance of water quality conditions. No such areas have been designated in the vicinity of the discharge location.
85. ~~Prohibition III.L-E~~ (No bypass of untreated waste). This prohibition is based on the Ocean Plan prohibition against the bypass of untreated wastes that contain concentrations of pollutants in excess of the effluent limitations and WQOs listed in Table A or Table B (Ocean Plan Section III.H.4).
6. Prohibition III.F (No SSO that results in a discharge of untreated or partially treated waste). The Clean Water Act prohibits the discharge of wastewater to surface waters except as authorized under an NPDES permit. POTWs must achieve secondary treatment, at a minimum, and any more stringent limitations that are necessary to achieve water quality standards (33U.S.C §1311(b)(1)(B) and (C)). Thus, an SSO that results in the discharge of raw sewage, or sewage not meeting secondary treatment standards, to surface waters is prohibited under the Clean Water Act.

E.1 The designation of Fact Sheet Table F-9, Water Quality Objectives for Chlorine, of the Tentative Order has been corrected to Fact Sheet Table F-8.