



**CITY OF MORRO BAY**  
PUBLIC WORKS DEPARTMENT  
955 Shasta Avenue  
Morro Bay, CA 93442

November 6, 2017

Mr. John Robertson, Executive Officer  
Central Coast Regional Water Quality Control Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401

**Re: Comments on the Draft Waste Discharge Requirements for Morro Bay-Cayucos Waste Water Treatment Plant Draft Order No. R3-2017-0050, NPDES No. CA0047881**

Dear Mr. Robertson:

The City of Morro Bay (City) appreciates the opportunity to review the Tentative Order for renewal of the City and Cayucos Sanitary District's Wastewater Treatment Plant (WWTP) National Pollutant Discharge Elimination System (NPDES) Permit. The City is judiciously working toward construction of the Water Reclamation Facility (WRF) Project, which will greatly improve levels of treatment and will be designed to comply with the water quality requirements provided in the City's permit. This letter includes a Project update as well as comments on the Tentative Order.

**Project Update**

Following denial by the California Coastal Commission of the Coastal Development Permit (CDP) for construction to upgrade the wastewater treatment plant at its existing location in 2013, the City of Morro Bay began planning a new Water Reclamation Facility (WRF). Between 2013 and 2016, the City performed several constraints and siting studies. In June of 2016, City Council directed staff to move forward with planning and permitting at the South Bay Boulevard site as the preferred site for the WRF Project.

Since June 2016, the City has completed the following major project elements:

- Notice of Preparation of an Environmental Impact Report
- Biological and cultural resource surveys in support of California Environmental Quality Act (CEQA)
- Draft Water Reclamation Facility Master Plan
- Hydrogeological modeling and reports to evaluate reuse options, ultimately focusing on feasibility of indirect potable reuse (IPR) in Morro Valley Groundwater Basin
- Draft Water Recycling Facilities Plan (Currently titled Master Water Reclamation Plan)
- Draft Rate Study

After completion of the initial Draft Rate Study in April, 2017, City Council directed staff to "pause" and investigate ways to reduce project costs. This investigation consisted of a peer review workshop and

report, followed by an updated site comparison study to explore the most cost-effective approach to move forward. The investigations and subsequent decisions by City Council resulted in changes to the project scope to reduce cost while still meeting the primary project objectives of plant relocation and recycled water production.

The City Council elected to move forward with planning for a WRF Project that will provide full water recycling at the South Bay Boulevard site, which was the site evaluated in the draft Water Reclamation Facility Master Plan and Master Water Reclamation Plan. Based on recommendations in the Master Water Reclamation Plan, it is anticipated that the Project will include full advanced treatment, a recycled water pipeline, and injection wells to facilitate indirect potable reuse.

Current Schedule: The anticipated schedule for significant milestones and Council decisions is summarized below.

Item	Date
Release RFQ for Design/Construction of WRF Onsite Improvements	Released October 2017
Council Selection and Award for WRF Offsite Improvements design (Lift Station and Pipelines)	November 2017
Release RFP for Design/Construction of WRF Onsite Improvements	January 2018
Release of Public Draft Environmental Impact Report (Draft EIR)	March 2018
Release of Updated Rate Study	April/May 2018
Proposition 218 Hearing	May/June 2018
Certification of Final EIR (Critical Timeline for Grant Pursuits)	June 2018
Award of Contract for WRF Onsite Improvements	August 2018
Award of Contract for Construction of Lift Station and Offsite Pipelines	November 2019
Completion of WRF Improvements	No Later than December 2022

**Comments on Tentative Order**

- 1. Provide additional time to review an administrative draft of the pending time schedule order.**  
 We understand a time schedule order with interim limits will be prepared to address compliance with the new permit. We are concerned that some of the monitoring requirements are not consistent with a secondary treatment permit and may carry over to a permit for the new facility. *We respectfully request sufficient time for the City to review an administrative draft of the pending time schedule order.*
- 2. Update the Draft Permit to conform to the current Ocean Plan.** The Draft Permit cites objectives from the 2012 California Ocean Plan. However, that plan has been superseded by the

2015 Ocean Plan. The Tentative Order (Draft Permit) should revise its requirements to conform to the current Ocean Plan.

- 3. Cite a Consistent Annual Report Due Date of April 1.** The Draft Permit contains conflicting dates for the submission of the Annual Monitoring Report, including January 30 (Page D-13), February 1 (Table E-12), and April 1 (Page E-26). *We request the various references to an annual monitoring report submission deadline be revised to reflect an April 1 deadline.* Only the April 1<sup>st</sup> deadline is tenable. That date is consistent with the Current Permit's submission deadline requirement. Earlier submission dates would be difficult to achieve. The data collection, laboratory processing of field samples, and analysis of instrumental data are sequential and require a finite amount of time. Many of these steps can only be initiated after the beginning of the year. An earlier deadline would leave little time for assimilating and reporting on the results, and the quality and scope of the final report would suffer greatly.
- 4. Eliminate the Cat-Litter Public-Outreach Program.** The Draft Permit retains a nebulous cat-litter requirement that is an outdated relic of the previous permit-renewal process conducted a decade ago. This problematic permit requirement has been the subject of considerable criticism in every annual monitoring report since the current permit was approved (See Pages 2-17, 2-18, and 3-9 in <http://www.morro-bay.ca.us/Archive.aspx?ADID=2757> and prior annual reports posted on the City of Morro Bay Website since 2009). *As discussed in those reports, we request elimination of this requirement for the following reasons.*

  - a) The requirement arose out of a Section 7 consultation with the USFW service by the EPA as part of their biological evaluation of current 301(h)-modified permit. The new Draft Permit is not 301(h) modified, and therefore EPA and USFW evaluations and Section 7 consultations are no longer part of the regulatory process. Consequently, there is no mechanism for those regulatory agencies to address new scientific information and revisit the original Cat-Litter requirement.
  - b) Shortly after final approval of the current MBCSD permit in 2009, results from a comprehensive field study (Johnson et al. 2009) were published that confirmed that disease vectors unrelated to WWTP discharge are responsible for the observed *T. gondii* exposure in otters, and that the epicenter for sea otter infection is not within Estero Bay. As such, there is no longer any scientific rationale for continuation of a dedicated outreach program specific to cat-litter disposal in the MBCSD collection system.
  - c) None of the other regional ocean dischargers have a similar requirement, including the recently approved permits for Goleta, Avila, and Carpinteria. It is

not as though the MBCSD is the only ocean discharger with cats located within its collection area, or that have southern sea otters within its receiving waters.

- d) Numerous nebulous requirements dealing with cat litter are included in multiple locations within the Draft Permit (Pages 20, E-27, F-7, F-40, and F-41). The annual requirements for “implementation goals...work plans...quantifiable measures for goals...descriptions of actions taken...reevaluations with adequate justification” are vague and make quantitative evaluation of compliance with the requirement unattainable.

**5. Eliminate the Acute Toxicity Requirement.** A requirement for an annual acute toxicity test was added to the Draft Permit apparently because the Current Permit did not require that test and therefore, an RPA could not be performed (Page F-31). However, the acute toxicity test requirement was specifically excluded from the Current Permit for a variety of reasons. All of those same reasons apply to the Draft Permit. Specifically, ammonia interference introduces substantial inaccuracy in reported test results, and there is no technical or regulatory rationale for requiring acute toxicity testing of MBCSD effluent. *For the following reasons, we request elimination of the acute toxicity testing requirement from the effluent monitoring requirements (Table E-3 on Page E-56). Alternatively, if inclusion of some form of acute testing requirement is deemed necessary, the requirement for conducting an acute test should be triggered by an elevated chronic test result that exceeds 90% (120 TUC) of the effluent limit. At a minimum, given the great uncertainty in the reported acute toxicity results, all Toxicity Reduction Requirements should only be based on a chronic toxicity triggering level, and not a trigger related to the acute bioassay results. Much of the rationale for eliminating the acute toxicity monitoring requirement was presented during the development of the current discharge permit, and has been presented in annual monitoring reports prior to 2009 (see Pages 2-38 thru 2-41 of the 2008 Annual Report available at: <http://www.morro-bay.ca.us/Archive.aspx?ADID=124>). Some of the major points are summarized below.*

- a) The Draft Permit fact sheet [Page F-31] correctly states that the California Ocean Plan (COP) requires chronic toxicity testing for dischargers when dilution is between 100:1 to 350:1, but does not acknowledge that the COP also states that acute tests are discretionary within that dilution range. In fact, at 133:1, the MBCSD discharge is at the lower end of that range, and for dischargers with slightly lower dilutions, below 100:1, acute testing is not required under any circumstances.
- b) Acute testing is unnecessarily redundant when chronic testing is also required as part of the WDRs because chronic tests provide far more accurate and sensitive measures of effluent toxicity. In Functional Equivalent Documents supporting

the COP, State Board “*Staff agrees that critical life stage tests are more sensitive indicators of receiving water impacts than acute toxicity tests.*”

- c) Acute tests conducted on MBCSD effluent during prior permit cycles have resulted in highly erroneous measures of toxicity that provided no insight into the actual toxicity of the discharge. Over two decades of acute testing prior to the current permit have demonstrated that the presence of ammonia in the MBCSD effluent samples severely compromises the accurate determination of acute toxicity.
- d) Even within these past artificially elevated acute-toxicity measurements, the reported acute toxicity of the MBCSD discharge has been less than half of the more-stringent effluent limitation cited in the WDRs of that period. Consequently, even the past artificially inflated acute-toxicity values cannot be considered a threat to beneficial uses.
- e) The acute toxicity limit is intended to prevent lethality to organisms passing through the acute mixing zone. For the MBCSD discharge, the prescribed mixing zone is highly localized around the outfall, and extends only 1.5 m (4.9 ft) from the point of discharge. Field measurements collected at that distance within MBCSD discharge jets show that the effluent had already been diluted more than 100-fold, which is 25-times more dilute than the effluent tested in the bioassays. The only conceivable beneficial use that could be impacted within that narrow zone would be fishing. However, finfish are likely to avoid the turbulent discharge jet. Acute toxicity tests continuously expose organisms over a four-day period and do not reflect the brief duration of any potential finfish exposure.

**6. Reduce the Monitoring Frequency for Cyanide and TCDD Equivalents.** Based on an RPA conducted on a limited dataset collected 3 years ago, the Draft Permit established monitoring frequencies for cyanide of twice per year and a TCDD equivalents (dioxin) monitoring frequency of once per year. However, the RPA finding that these two constituents have a reasonable potential to exceed water-quality objectives is an artifact of uncertainty introduced by the limited time span of the datasets. Attachment A contains the RPA input and results for a more representative 14-year dataset spanning the period from 2004 thru 2017. Analysis of that data conclusively determines an RPA endpoint of 2, indicating that an effluent limitation is not required for those pollutants. *We request the monitoring frequency for cyanide and TCDD equivalents be reduced to once in the life of the permit.*

**7. Remove the effluent nutrient monitoring requirement.** A provision for nutrient monitoring was incorporated into the Current Permit to address concerns regarding the MBCSD’s potential

nutrient contribution to the generation of harmful algal blooms offshore central California. However, chemical analyses on nitrate, urea, orthophosphate, and silica that were conducted in every annual report produced in the current permit cycle, demonstrate unequivocally that nutrient concentrations within the MBCSD effluent, and their mass loading to the marine environment from its discharge, are miniscule compared to both other central-coast dischargers, and the contribution from regional streams and rivers. These nutrient comparisons are provided in Section 2.2.11 on Pages 2-32 thru 2-34 and on Pages 5-9 and 5-10 of 2015 Annual Report available at: <http://www.morro-bay.ca.us/Archive.aspx?ADID=2757>. Some of that discussion is summarized below. *We request that the effluent nutrient monitoring requirement (nitrate, urea, orthophosphate, and dissolved silica in Table E-3 on Page E-5 of the draft permit) be removed.*

- a) In contrast to the other effluent parameters, there are no effluent limits associated with these four nutrients and therefore, they have no bearing on compliance assessments.
- b) Nutrient loading from the MBCSD WWTP is several orders-of-magnitude lower than both runoff and discharge from other central-coast WWTP's, and far smaller than the nutrient loading from naturally occurring processes such as upwelling.
- c) Additionally, it is clear that nutrient loads from the MBCSD discharge are unrelated to the frequency or intensity of the algal blooms occurring along this stretch of coastline. Consequently, continued nutrient monitoring provides no scientifically valid or usable information relevant to the prediction or management of algal blooms, and should be discontinued.
- d) Other, much larger central coast dischargers are no longer required to monitor for nutrients and it is unreasonable to impose this additional requirement only on the MBCSD discharge.

**8. *Reduce the requirements for offshore benthic surveys and eliminate the requirement for water-column surveys.*** The requirement for annual offshore benthic and water-column surveys is not warranted for a variety of reasons. *We request that the requirement for water-column surveys be eliminated, and the frequency of benthic surveying be reduced to once-in-the-life of the permit. Justification and discussion is provided below.*

- a) The offshore benthic and water-column surveys are labor intensive to conduct and time consuming to analyze, and as a result, are far more expensive than end-of-pipe chemical assays.
- b) The months of effort expended on these offshore surveys will not result in monitoring program that is more protective of the marine environment than achieved by the routine onshore effluent monitoring already implemented in

the permit. End-of-pipe monitoring provides an immediate and easily-interpreted assessment of potential marine impacts that may result from a decline in effluent quality. In contrast, offshore monitoring requires complex analyses to determine the presence of long-term changes in a highly variable marine environment.

- c) The quarter-century of data already amassed by the MBCSD offshore monitoring program has never indicated any marine impacts from the discharge. It is highly unlikely that continued offshore monitoring of similar intensity will result in a different finding.
- d) The proposed offshore monitoring program is more intensive than that of other dischargers of similar or larger discharge volume. For example, as with most small ocean dischargers, the new Goleta permit does not require offshore water-column surveys, and limits the benthic sampling to once-in-the-life of the permit. This level of monitoring is also appropriate for the MBCSD discharge given that its flow is four-times smaller, its offshore dilution is 10% greater, and it services a less-industrialized collection area.
- e) The small volume of effluent discharged by the MBCSD is much higher quality than that achieved by primary treatment alone because the majority of effluent receives secondary treatment. TSS and BOD concentrations within the MBCSD discharge are the only effluent constituents that may occasionally slightly exceed full-secondary standards, but because of the limited discharge volume, TSS and BOD loading to the environment is similarly limited. Moreover, the MBCSD discharge volume has declined in recent years and additional declines are expected when the Cayucos treatment plant is commission next year.
- f) The Draft MBCSD Permit is no longer covered by Section 301(h) of the Clean Water Act, and as such, it not legally subject to the intensive offshore monitoring program specifically mandated in that section of the Federal Regulations. From a regulatory standpoint, it is inconsistent to impose these exhaustive monitoring requirements when the other 301(h) provisions were eliminated in the Draft Permit.

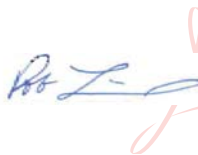
**9. Correct the effluent concentration and loading limits for heptachlor and Heptachlor epoxide in Table 7 on Page 9, Table F-6 on Page F-13, and Table F14c on Pages F-29 and F-30.** The respective concentration limits should be 0.0067 µg/L and 0.00268 µg/L, and the loadings should be  $1.15 \times 10^{-4}$  lbs/day and  $4.6 \times 10^{-5}$  lbs/day. This request was made in Comment 32 of Attachment F – Fact Sheet for the current permit, but was never implemented in the final permit.



The City also requests the Regional Water Quality Control Board acknowledge the City is pursuing a recycled water program, and salt reduction in the collection system will be critical to reducing capital and operating cost for production of recycled water. Based on sampling conducted in June and July of 2015, the City estimated that brine from self-regenerating water softeners contributed 12% of total dissolved solids (TDS) and 19% of chlorides to wastewater treatment plant (WWTP) influent (January 5, 2016, Presentation to Water Reclamation Facility Citizens Advisory Committee).

The City appreciates this opportunity to provide comments regarding the proposed Tentative Order. We are committed to the protection of water quality, human health and the environment while providing efficient and effective services for our community. If you have any questions regarding the comments presented in this letter, please contact Joe Mueller, Utilities Manager or me at (805) 772-6261.

Sincerely,

 Digitally signed  
by Rob Livick  
Date: 2017.11.06  
14:00:03 -08'00'

Rob Livick, PE,  
Public Works Director/City Engineer

Cc: Katie DiSimone, Central Coast Regional Water Quality Control Board  
Scott Collins, City Manager  
Joe Mueller, Utilities Manager  
Rick Coon, General Manager Cayucos Sanitary District  
Doug Coats, Marine Research Specialists  
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