

Response to Comments

Tentative Waste Discharge Requirements and Water Recycling requirements for City of Malibu Malibu Civic Center Wastewater Treatment Facility (Civic Center Facility) – Phases I and II Projects

Comment Letters	Commented by	Date
1	City of Malibu (City)	January 26, 2015
2	Heal the Bay (HTB)	January 30, 2015

No.	Comment	Response to Comment
City of Malibu		
1-1	<p>Footnote [2] of Table 10 on Page 20, Tentative Permit</p> <p>This note should specify that the City will not contribute to the degradation of groundwater quality above either the limits set forth in the table or ambient conditions whichever is greater.</p>	<p>Section III.2. of the tentative permit includes the following conditions: <i>"The City shall demonstrate that the discharges from the Civic Center Facility do not contribute to the degradation of groundwater quality above either the limits specified in Table 10 or ambient groundwater quality as established by monitoring."</i></p> <p>The tentative permit appropriately protects the shallow and lower aquifers. There is no change needed for the tentative permit.</p>
1-2	<p>Figure 2 on Page 37, Tentative Permit</p> <p>This figure should be footnoted that this was what was in the MOU or it should be replaced with a figure reflecting current phasing conditions.</p>	<p>Figure 2 of the tentative permit shows the areas within which the dischargers will be connected at phases I, II and III. The revised figure containing the latest updated connection will be incorporated in the revised tentative permit.</p>
1-3	<p>Figure 4 on Page 39, Tentative Permit</p> <p>This figure does not reflect the most current pipeline configuration.</p>	<p>The revised figure containing the latest updated pipeline configuration will be incorporated into the revised tentative permit.</p>
1-4	<p>Table 4 on Page 9, Tentative Monitoring and Reporting Program (MRP)</p> <p>LAMW-5S is 80 feet deep not 20.</p>	<p>Comment noted. Regional Board staff will revise the tentative MRP accordingly.</p>

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1-5	<p>Section IV.3.B.b on Page 10, Tentative MRP</p> <p>The City requests the flexibility for the first baseline monitoring – The City shall initiate baseline monitoring program in 2015 and complete baseline monitoring prior to initiation of injection</p>	<p>Regional Board staff will revise the statement as: “The City shall initiate the baseline groundwater quality monitoring by October 15, 2015 and shall conclude the baseline monitoring prior to initiation of injection ...”</p>
1-6	<p>Footnote [2] of Table 5 on Page 11, Tentative MRP</p> <p>The sampling frequency is annual instead of semi-annually.</p>	<p>Comment noted. The Footnote [2] will be updated to be consistent with the table.</p>
1-7	<p>Footnote [2] of Table 6 on Page 12, Tentative MRP</p> <p>The City prefers the groundwater sample collected during the dry season.</p>	<p>Comment noted. The discharger shall collect groundwater samples during the dry season each year. The Footnote [2] will be revised as: “Annual samples shall be collected during the dry season each year.”</p>
Heal the Bay		
2-1	<p>The Tentative Permit Needs a Robust Monitoring Program</p> <p>BOD_{5@20}^{°C} and Total Suspended Solids Effluent/Recycled Water Monitoring Frequency Should to be Daily</p> <p>The Tentative Permit provides no justification for requiring minimum effluent/recycled water weekly, rather than daily, monitoring for BOD_{5@20}^{°C} (“BOD”) and Total Suspended Solids (“TSS”). BOD and TSS are important indicators of wastewater treatment operations. In fact, treatment capacity design for the Civic Center Facility was based upon BOD loading. Monitoring BOD and TSS concentrations on a daily basis is needed during the initial years of wastewater treatment plant operations to ensure treatment trains operate as designed. In addition, influent volumes are likely to increase episodically during the first year of operation of the Civic Center Facility as Phase I properties gradually get connected to the Civic Center Facility. Not requiring daily BOD and TSS monitoring will significantly limit the facility operators' ability to respond quickly to abrupt changes in influent volumes and prevent exceedances of permit limits. The Regional Board needs to take a precautionary monitoring approach to ensure effluent limits are not being exceeded during the permit term. Thus, we believe BOD and TSS need to be monitored daily for six months after all Phase I properties have connected to the Civic Center Facility to ensure the Civic Center Facility is meeting effluent limits. If monitoring data shows the Civic Center Facility is consistently meeting effluent limits during that time, BOD and TSS monitoring may be reduced to weekly.</p>	<p>Regional Board staff agree that BOD and total suspended solids (TSS) data are important to optimize the operation of the Civic Center Facility. The discharger is required and must demonstrate that the Civic Center Facility is optimized and the treated wastewater meets effluent limits prior to discharge. Wastewater not meeting effluent limits shall not be discharged or recycled, and must be circulated back to the head of water for further treatment.</p> <p>Additionally, the proposed Civic Center Facility includes a 99,000-gallon equalization basin which should be capable of managing any spikes of constituents in influent, and maintain the proper treatment efficiency.</p> <p>Once the optimized operation of treatment system reaches a steady state, weekly monitoring on the BOD and TSS is sufficient.</p> <p>The MRP will be revised to incorporate the updated BOD sampling frequency and a footnote for BOD: The BOD shall be sampled and analyzed daily for the first month after initiation of operation, and weekly thereafter. If the concentration of BOD exceeds the effluent limits specified in the Order, the Discharger shall immediately begin to sample and analyze for BOD on a daily basis. The sampling frequency may resume back to weekly when the</p>

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		concentration of BOD in the daily sample again meets the BOD effluent limits.
2-2	<p>Effluent/Recycled Water Monitoring of Title 22 Constituents (Attachment A1-A5) Should Be Conducted Monthly</p> <p>The Tentative Permit requires Title 22 constituent to be monitored quarterly without providing any reasoning to support this monitoring frequency. Recycled water is an important water resource, especially during California's current extreme drought. Moreover, diversifying regional water portfolios is critical to sustain current and future potable water supplies. In the Civic Center Area, high quality recycled water, which will be produced by the Civic Center Facility, has the potential to reduce potable water demand. However, quarterly monitoring of Title 22 constituents will not ensure recycled water from the Civic Center Facility will consistently meet recycled water quality standards. Further, quarterly monitoring for Title 22 effluent limits is particularly inappropriate for new wastewater treatment plants, such as the Civic Center Facility, because the plant's effectiveness in consistently meeting effluent limits has not been shown. Thus, Title 22 constituents (Attachment A1-A5) effluent/recycled water monitoring frequency should be changed from quarterly to monthly to protect recycled water applications and ensure recycled water effluent limits are consistently being attained.</p>	<p>The purpose of Title 22 is to regulate the reuse/recycle of treated wastewater. The primary constituents regulated under Title 22 for protection of human health from contact with irrigation water are total coliform and fecal coliform. Both total and fecal coliform are analyzed on a daily bases for the protection of beneficial uses of waters and public health. The monitoring frequency for the rest of Title 22 constituents (turbidity, etc.) specified in the MRP is adequate and consistent with Title 22 requirements.</p> <p>Constituents and the associated Maximum Contaminant Levels (MCLs) in Attachments A1 through A5 are referenced from Drinking Water Standards. Effluent from the Civic Center Facility will be discharged either via injection to the underlying groundwater aquifer or recycled for landscape irrigation. The current frequency for analyzing inorganic and organic chemicals, radioactivity, disinfection byproducts, and secondary MCLs as specified in Attachments A1 through A5 on a quarterly basis is sufficient.</p> <p>The Civic Center Facility is designed to treat only domestic wastewater from Malibu Civic Center area. Quarterly monitoring on constituents listed in Attachments A1 through A5 is reasonable. There is no change needed for the tentative MRP.</p>
2-3	<p>Effluent/Recycled Water Monitoring Frequency for Salts Should be Weekly</p> <p>The Tentative Permit would allow 191,000 GPD and 361,000 GPD of effluent to be injected into Civic Center Gravels during Phases I and II, respectively. As the Tentative Permit acknowledges, the Malibu Valley Groundwater Basin, which includes the Civic Center Gravels, is designated as municipal and domestic water supply. To control the amount of salts entering this groundwater basin, the City has indicated it may adopt a water softener ordinance; however, it is unclear when this ordinance will be adopted. Home water softeners commonly use chloride to replace calcium and magnesium ions in potable water. The proposed Civic Center Facility is not designed to treat for chloride or any other</p>	<p>The concentrations of salts (chloride, boron, sulfate and TDS) in the wastewater depend largely on the quality of water supply, human consumption and the use of water softeners. The number of softeners used in this area will not increase or decrease dramatically in one week time span. Therefore, the current frequency of monitoring salt contents in the effluent on a monthly basis is sufficient to evaluate any potential changes over time.</p> <p>There is no change needed for the tentative MRP.</p>

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	salts. ¹ To protect the quality of the groundwater basin and to comply with the State's Anti-degradation Policy, the Tentative Permit should require weekly effluent/recycled water monitoring of chloride, boron, sulfate, and TDS. Monitoring salt concentrations being injected into the Civic Center Gravels on a weekly basis is necessary to ensure groundwater quality is not being adversely impacted by the Civic Center Facility.	
2-4	<p>California Toxics Rule Priority Pollutants (Attachment D) Effluent/Recycled Water Monitoring Should be Semi-Annually</p> <p>The Tentative Permit provides no reasoning for requiring annual effluent/recycled water monitoring for California Toxics Rule Priority Pollutants (Attachment D). Most wastewater treatment facility permits issued by the Regional Board include semi-annual minimum effluent sampling for EPA priority pollutants. Since the Civic Center Facility is a new wastewater treatment facility, we believe semi-annual minimum effluent/recycled water monitoring is warranted in this permit term to ensure effluent/recycled water quality is consistently meeting effluent limits.</p>	<p>The commenter referenced National Pollutant Discharge Elimination Systems (NPDES) permits which regulate discharge to surface water. The effluent of the Civic Center Facility will be discharged via subsurface injection, or recycled for landscape irrigation, not to surface waters via an NPDES permit. The requirements of monitoring priority pollutants on an annual basis is consistent with other Waste Discharge Requirements (WDRs) permits issued for land discharge.</p> <p>There is no change needed for the tentative MRP.</p>
2-5	<p>Constituents of Emerging Concerns List Should Be Expanded</p> <p>The Constituents of Emerging Concerns ("CECs") list contained in Attachment C of the Tentative Permit contains only six constituents. While we understand this list is derived from Table 1 – Ground Water Recharge Reuse – Subsurface Application from the State Water Board Resolution 2012-003, the Regional Board cannot rely solely on Resolution 2012-003 to determine the number of CECs monitored because effluent/recycled water will not entirely be injected into the underlying groundwater basin (a portion of treated effluent will be used by the community for recycled water applications). Thus, a more complete list of constituents, similar to recently adopted wastewater WDRs/WRRs by the Regional Board, needs to be included in the Tentative Permit.</p>	<p>State Water Resources Control Board (State Water Board) Resolution No. 2012-003 (Recycled Water Policy) requires that certain CECs be monitored in recycled water. The CECs identified in the tentative MRP are consistent with the Recycled Water Policy, which requires monitoring for these six constituents. Regional Board staff has consulted the Division of Drinking Water, which concurred with the MRP.</p> <p>There is no change needed for the tentative MRP.</p>
2-6	<p>The Executive Officer Should Not Be allowed to Adjust Monitoring Frequencies or Drop Monitoring Parameters, Tentative MRP</p> <p>Section VIII Monitoring Frequencies on Page 16 states: "Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the City makes a request (with justification) and the Executive Officer determines that the request is</p>	<p>The Executive Office is delegated with the authority to review and revise the MRP as appropriate, which is consistent with all other individual and general permits for either existing or new wastewater treatment plants. Any change to monitoring frequency or/and constituents to be monitored,, requires evaluation on the following data:</p>

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	<p>adequately supported by statistical trends in the monitoring data submitted. The City cannot make any adjustments until written approval is received from the Executive Officer."</p> <p>The Civic Center Facility is a new wastewater treatment facility. Thus, it is critical that robust monitoring data be collected during the initial permit term to ensure treatment efficacy. In addition, no definition for "adequately supported by statistical trends in monitoring data" was included in the Tentative Permit. To justify modification to monitoring requirements, the Civic Center Facility needs to present data showing treatment efficacy after the plant has been operational for at least two years following the connection of all Phase I & II properties. In other words, any statistical trend analyses should only be conducted after all currently constructed properties in the Septic Prohibition area have connected to the facility. The above provision should either be removed or significantly revised to address these concerns.</p>	<ol style="list-style-type: none"> 1. The effluent/recycled water quality data; 2. The receiving groundwater quality data; and, 3. The receiving surface water quality data. <p>The common practice includes that the discharger collect water quality data for, at a minimum, two years covering wet and dry seasons and multiple years before requesting any change of monitoring frequency. And the data must indicate that the operation and water quality have reached a steady state or are not impacted by the discharge.</p> <p>Section VIII of the tentative MRP will be revised as follows: "Monitoring frequencies and parameters may be revised by the Executive Officer. The City may make a request (with justification) to reduce the monitoring frequency or to modify the list of monitoring constituents, two years after optimizing the Civic Center Facility operation. The City shall not make any adjustment until the Executive Officer provides written approval after determining that the request is adequately supported by monitoring data.</p>
2-7	<p>Inclusion of Additional Effluent/Recycled Water Limits</p> <p>Effluent/recycled water limits contained in the Tentative Permit are consistent with groundwater quality objective in the Water Quality Control Plan Los Angeles Region ("Basin Plan"). However, we believe that additional constituents are warranted to ensure groundwater and surface water are not impacted by effluent/recycled water injection and application. Specifically, settleable solids and ammonia nitrogen effluent/recycled water limits should be included in the Tentative Permit. These constituents are important for evaluating plant performance and have</p>	<p>There is no limit to regulate settleable solids for land discharge. The tentative permit contains limits for both total suspended solids and total dissolved solids. The requirement of monitoring settleable solids is not necessary for wastewater treated by membrane technology and discharged to land.</p> <p>The Basin Plan does not contain a water quality objective for ammonia that applies to groundwater. Nitrification and denitrification treatment plus bio-membrane technology used in the Civic Center Facility will convert ammonia to nitrate and nitrite. The Order does contain effluent limits for nitrate and nitrite.</p> <p>The MRP includes weekly monitoring for ammonia in the effluent/recycled water.</p> <p>There is no change needed for the tentative MRP.</p>
2-8	<p>Agronomic Rate Language</p> <p>On page 21 of the Tentative Permit we ask the following language be</p>	<p>Comment noted. Regional Board staff will revise Section V.2 as suggested to be consistent with the Recycled Water Policy.</p>

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	<p>added to be consistent with the State Recycled Water Policy:</p> <p>“Recycled water shall be applied at agronomic rates and when soil is not saturated, such that a rate and volume does not to exceed vegetative demand and soil moisture conditions.”</p>	
2-9	<p>Non-Potable Recycled Water Use in Plumbing Outlets</p> <p>On page 22 of the Tentative Permit, we ask the following language be added to clarify non-potable plumbing use with recycled water:</p> <p>“To serve non-potable plumbing outlets (excluding fire suppression systems) within a building; or,”</p>	Regional Board staff will revise Section VI.1.A. as suggested.