

ATTACHMENT 2 - MRR R3-2013-0010 COMMENTS

LEIF UTEGAARD, CHIEF OPERATOR OF COSTANOA WWTP, COSTANOA LODGE & RESORT, COMMENTS

COMMENT NO. 1: With regard to Waste Discharge Requirements (WDR) Compliance History Finding No. 24 “....under the section titled Compliance in the new order, we ask that the term “off specification wastewater” be defined as any effluent exceeding the Maximum not-to-exceed Limits and not the averages since those levels are not determined until after the production has been averaged.”

RESPONSE NO. 1: Water Board staff refers to Title 22 California Code of Regulations, Division 4, Chapter 3 Water Recycling Criteria, Article 1 Definitions to define ‘off-specification wastewater.’ Sections 60301.230 and 60301.320 define ‘Disinfected tertiary recycled water’ and ‘Filtered wastewater’ as follows:

60301.230. Disinfected tertiary recycled water

"Disinfected tertiary recycled water" means a filtered and subsequently disinfected wastewater that meets the following criteria:

- (a) The filtered wastewater has been disinfected by either:
 - (1) A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or
 - (2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.
- (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

60301.320. Filtered wastewater

"Filtered wastewater" means an oxidized wastewater that meets the criteria in subsection (a) or (b):

- (a) Has been coagulated and passed through natural undisturbed soils or a bed of filter media pursuant to the following:
 - (1) At a rate that does not exceed 5 gallons per minute per square foot of surface area in mono, dual or mixed media gravity, upflow or pressure filtration systems, or does not exceed 2 gallons per minute per square foot of surface area in traveling bridge automatic backwash filters; and

(2) So that the turbidity of the filtered wastewater does not exceed any of the following:

- (A) An average of 2 NTU within a 24-hour period;
- (B) 5 NTU more than 5 percent of the time within a 24-hour period; and
- (C) 10 NTU at any time.

(b) Has been passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane so that the turbidity of the filtered wastewater does not exceed any of the following:

- (1) 0.2 NTU more than 5 percent of the time within a 24-hour period; and
- (2) 0.5 NTU at any time.

As noted above, the definition of 'off-specification wastewater' relies on both averages and instantaneous values of filtered disinfected wastewater as established in Title 22. Water Board staff must adhere to these values as reflected in Order R3-2013-0010.

COMMENT NO. 2: Costanoa would also like to ask the board for a timeframe allowing for the construction of the diversion pipeline.

RESPONSE NO. 2: Water Board staff has added in Section E. Provision No. 11 stating the following:

- 11. The Supplier and Distributor shall install a diversion pipe that transports off-specification wastewater to a 5-acre disposal field by July 11, 2014.

COMMENT NO. 3: Not mentioned in the new order is the addition of a tube settler clarifier that includes polymer flocculation and coagulation. The clarifier was installed in 2006 and is in place in the flow between the SBR effluent and the static sand filters. The sand filters were configured to be operated in a static mode rather than the original continuously moving mode. These changes were approved by Mike Higgins (CWQCB staff) at the time.

RESPONSE NO. 3: Water Board staff appreciates the clarification of treatment system components. These changes have been made to Order R3-2013-0010.

COMMENT NO. 4: Costanoa would like to ask for an exemption from the threat to groundwater proposed under the Basin Plan as it applies to Whitehouse Creek.

RESPONSE No. 4: Observing groundwater conditions around the area of the planned disposal system and the reclaimed holding pond is necessary to understand the health of groundwater around those areas. Additionally, Whitehouse Creek is downgradient (southwest) of Costanoa's planned disposal field and downgradient of the reclaimed water holding pond. Therefore, it is

appropriate to monitor the shallow groundwater conditions and the request for exemption of groundwater monitoring is denied.

COMMENT NO. 5: If the board sees fit, Costanoa hopes to be eligible for a WDR under the General Permitting for landscape irrigation uses of municipal recycled water.

RESPONSE No. 5: The State Water Resources Control Board Water Quality Order No. 2009-0006-DWQ, General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water (General Permit), states “recycled water” is limited to disinfected tertiary recycled water produced by a public entity at a municipal wastewater treatment plant, as defined in Water Code section 13625(b)(1) and section 13625(b)(2). The Costanoa Lodge and Spa does meet the definition of a municipal wastewater treatment plant and therefore, cannot be enrolled into the General Permit.

COMMENT NO. 6: Costanoa has proven over many years of comparative Nitrogen Sampling between the plant effluent and the pond, that the pond provides a very adequate level of denitrification. It has been allowed by CWQCB staff, after review of this data, for Nitrate sampling to come from the pond. As a result, there have been no samples over the Nitrate limits. We ask that this sampling location be listed in the new order.

RESPONSE No. 6: The point of compliance for nitrate concentrations is just prior to irrigation application or in groundwater, therefore sampling and analyzing for nitrate and other nitrogen compound from the reclaimed detention pond is approved. Water Board staff has inserted a Section B.2 with Table 3 in Monitoring and Reporting Program No. R3-2013-0010 to accommodate this request. It states as follows:

2. Representative samples of treatment facility effluent at the reclaimed storage pond shall be collected and analyzed for the constituents/parameters and at the frequency specified below:

Table 3. Reclaimed Water Effluent Monitoring – Compliance Point 2

Constituent/Parameter^[1]	Units	Sample Type^[2]	Sampling Frequency
Total Nitrogen (as N)	mg/L	Grab	Monthly ^[3]
Ammonia (as N)	mg/L	Grab	Monthly ^[3]
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly ^[3]
Nitrate (as N)	mg/L	Grab	Monthly ^[3]

Notes:

- ^[1] Sampling for specific analytes may be reduced or discontinued after one year upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
- ^[2] Sampling shall occur immediately following the final treatment process (i.e., disinfection or dechlorination as applicable) unless noted otherwise.
- ^[3] Monthly sampling events shall be separated by at least 16 days and no greater than 45 days.

COMMENT NO. 7: Formaldehyde, 1,4-Dichlorobenzene and Methanol are analytes that in all likelihood don't exist in the influent or effluent. Costanoa would ask for board consideration when applying limits to unknowns. We don't understand these requirements other than to guess that they too apply to the threat to Whitehouse Creek as discussed above.

RESPONSE No. 7: Formaldehyde, 1,4-dichlorobenzene and methanol are components of chemicals commonly used in recreational vehicles (RVs). The Costanoa Lodge and Spa provides RV camping where electrical and disposal hookups are available for the RVs. Groundwater contamination by formaldehyde has been observed by Water Board staff at other similar RV sites. It is appropriate and necessary to screen for these constituents since formaldehyde is a listed human carcinogen and all three constituents have the potential to impact groundwater or local creeks.

COMMENT NO. 8: Potable water production is around 4.6 MG/year. Fe and Mn are removed at an annual loading of around 290 lbs. of Fe sludge and 18 lbs. of Mn sludge combined. The sludge is discharged into the reclaim pond. The reclaim pond is 15 acre feet. The WWTP currently produces an average effluent of 9.2 acre feet a year. Costanoa would like to request the board's permission to continue to discharge this nominal amount of sludge to be diluted into reclaim pond allowing these nutrients to be used in our irrigation water.

RESPONSE No. 8: Master Reclamation Requirements Order No. R3-2013-0010 does not restrict the discharge of Costanoa's potable water treatment system waste stream containing concentrated levels of iron (Fe) and manganese (Mn) into the reclaimed retention pond. The MRP No. R3-2013-0010 does specify that these constituents be monitored in the groundwater samples to ensure the iron and manganese sludge is not impacting local groundwater conditions.