

**Regional Water Quality Control Board
Central Valley Region
Board Meeting – 6-7 December 2012**

**Response to Written Comments for Hume Lake Christian Camps, Inc.,
Wastewater Treatment Facility
Tentative Waste Discharge Requirements**

At a public hearing scheduled for 6 and 7 December 2012, the Regional Water Quality Control Board, Central Valley Region, (Central Valley Water Board) will consider adoption of Waste Discharge Requirements (WDRs) for discharges from the Hume Lake Christian Camps, Inc., (Hume) Wastewater Treatment Facility (WWTF). This document contains responses to written comments received from interested parties regarding the draft tentative WDRs initially circulated on 7 September 2012. Written comments from interested parties were required by public notice to be received by the Central Valley Water Board by 10 October 2012 to receive full consideration. Comments were received from Hume and the Central Valley Clean Water Association (CVCWA).

Written comments from the above interested parties are summarized below, followed by the responses of Central Valley Water Board staff. Based on the comments, Central Valley Water Board staff did make some changes to the tentative WDRs. Central Valley Water Board staff also made some changes to correct typographical errors and to improve clarity.

In order to clarify the influent monitoring sample location, the Influent Monitoring section of the Monitoring and Reporting Program (MRP) has been revised as follows:

Influent samples shall be collected prior to ~~discharge to the treatment/storage ponds~~ and shall include at least the following:

HUME COMMENTS

On 10 October 2012, Hume submitted the following comments via email.

Hume Comment No. 1: We have found that the actual capacity of the flow equalization tank based on design reports and as-built plans actually show the tank holds 140,000 gallons. We will provide documentation to clarify this increase.

Response: Since receiving the original written comments, Hume indicated it incorrectly identified the capacity of the flow equalization tank to be 140,000 gallons when it is actually 110,000 gallons. On 15 October 2012, Hume provided documentation via email that the capacity of the flow equalization tank is 110,000 gallons. Finding 5 of the WDRs has been revised to indicate the capacity of the flow equalization tank is 110,000 gallons.

Hume Comment No. 2: The WWTF no longer uses ZETAG 7878 polymer to aid in flocculation. The WWTF currently uses Drewfloc 2479 polymer.

Response: Finding 11 has been revised to remove a specific trade name for the flocculent used at the WWTF.

Hume Comment No. 3: Review of the definition of Complexity in the 2011-2012 Fee Schedule indicates the discharge from the WWTF is better described in Category “B” since the discharge does not meet the criteria for Category “A.” The WWTF does not discharge toxic wastes and does not have a Class 1 waste management unit. Although the WWTF does have numerous discharge points (leach trenches, ponds, and sprayfield), groundwater monitoring is not required. Therefore, the discharge should be Complexity “B.”

Response: Finding 42 has been revised to change the Complexity of the discharge from an “A” to a “B.”

Hume Comment No. 4: The effluent limitation for turbidity, “filtered effluent shall not exceed 2.0 NTU as a daily average; shall not exceed 5 NTU more than 5 percent of the time during a 24-hour period; and shall never exceed 10 NTU,” is appropriate when discharge is occurring to the sprayfield as recycled water. However, when discharge occurs to the percolation ponds or leach trenches, this effluent limitation is not appropriate and would be more appropriate under Section D, Water Recycling Specifications.

Response: The effluent limitation for turbidity was included in the tentative WDRs as a year-round limitation since treated effluent is discharged directly to the evaporation/percolation ponds prior to use as recycled water at the sprayfield and there are not restrictions as to the time of year when discharge can occur to the evaporation/percolation ponds. However, subsequent conversations with Hume have revealed it would like to modify the current discharge infrastructure at the WWTF so that treated effluent can be discharged directly to the sprayfield when recycled water is needed and to preclude discharge of treated effluent from the evaporation/percolation ponds to the sprayfield. Therefore, the effluent limitation for turbidity will only apply when actively discharging to the sprayfield.

The WDRs have been revised to: include a Finding that Hume intends to modify the discharge infrastructure of the WWTF; Effluent Limitation for turbidity was removed and a Discharge specification was added to be applicable year-round until the discharge infrastructure modifications have been completed, then be only applicable when actively discharging to the sprayfield; include a Discharge Prohibition to preclude the use of evaporation/percolation pond water to irrigate the sprayfield once infrastructure modifications have been completed; and include a Provision that requires Hume to document the completion of infrastructure modifications.

Because of proposed modifications to the discharge infrastructure, the wording of Effluent Limitation C.1, with respect to settleable solids, BOD₅, and total suspended solids, has been revised to indicate it also applies when discharge occurs to the sprayfield.

Hume Comment No. 5: The effluent limitation for total coliform, “median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed a most probable

number (MPN) of 2.2 per 100 mL 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 mL in more than one sample in any 30-day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 mL,” is appropriate when discharge is occurring to the sprayfield as recycled water. However, when discharge occurs to the evaporation/percolation ponds or leach trenches, this effluent limitation is not appropriate.

Response: In addition to the revisions to the WDRs that are outlined in the Response to Comment No. 4, the WDRs have been revised to indicate the effluent limitation for total coliform (median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 mL 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 mL in more than one sample in any 30-day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 mL) will only apply when actively discharging to the sprayfield.

An Effluent Limitation for total coliform, that is consistent with the current WDRs, has also been added when actively discharging to the evaporation/percolation ponds. This effluent limitation is the median concentration of total coliform bacteria in the disinfected effluent shall not exceed an MPN of 23 per 100 mL 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 240 per 100 mL in more than one sample in any 30-day period.

Hume Comment No. 6: The effluent limitation for the CT value, “at least 450 mg-min/mL at all times with a modal contact time of at least 90 minutes based on peak dry weather design flow,” is appropriate when discharge is occurring to the sprayfield as recycled water. However, when discharge occurs to the percolation ponds or leach trenches, this effluent limitation is not appropriate and would be more appropriate under Section D, Water Recycling Specifications.

Response: Effluent Limitation C.5 regarding the CT value requirement has been deleted from the WDRs. However, Section D, Water Recycling Specifications, has been revised to include a specification that states, “the CT value (product of total chlorine residual and modal contact time measured at the same point) shall be at least 450 mg-min/mL at all times with a modal contact time of at least 90 minutes based on peak dry weather design flow.” This specification is included in response to a request by the California Department of Public Health to include this language in WDRs that permit the discharge of recycled water and will only apply when actively discharging to the sprayfield.

Hume Comment No. 7: The Water Recycling Specifications section indicates, “Irrigation of the use area shall occur only when appropriately trained personnel are on duty.” This specification would require a night shift because irrigation of the sprayfield typically occurs at night (and is also required by another Water Recycling Specification which indicates irrigation

is to occur during periods of minimal use, typically between 9 p.m. and 6 a.m.). The recycled water irrigation system for the sprayfield has a locked irrigation timer that does not allow water to be used during daylight hours. Appropriately trained personnel inspect the sprayfield each morning following irrigation from the night before to assess performance and needs of the sprayfield. Since the irrigation system operates on locked timers, appropriately trained personnel are on-call and live near the WWTF, and sprayfield inspections occur each morning following an irrigation event, the Water Recycling Specifications section should be revised so that a night shift is not required.

Response: The Water Recycling Specification in question has been revised as follows:

Irrigation of the use areas shall ~~occur only when~~ **be performed by** appropriately trained personnel ~~are on duty~~. ***The use of locked irrigation timers that are set by appropriately trained personnel and use area inspections performed by appropriately trained personnel that occur the morning following a recycled water irrigation event are sufficient to satisfy this Specification.***

Hume Comment No. 8: The Water Recycling Specifications section also indicates, "Use areas where public access is allowed shall be irrigated during periods of minimal use (typically between 9 p.m. and 6 a.m.)." This specification would also require a night shift. Because of the reasons provided in Comment No. 7, this particular Water Recycling Specification should be revised so that a night shift is not required.

Response: The Water Recycling Specification in question has been revised as follows:

Use areas where public access is allowed shall be irrigated during periods of minimal use (typically between 9 p.m. and 6 a.m.). ***The use of locked irrigation timers that are set by appropriately trained personnel and use area inspections performed by appropriately trained personnel that occur the morning following a recycled water irrigation event are sufficient to satisfy this Specification.***

Hume Comment No. 9: The due date for the Salinity Management Plan required by Provision G.5 is 30 September 2012 and should be changed to 30 September 2013.

Response: The requested change has been incorporated.

Hume Comment No. 10: The Effluent Monitoring Section of the MRP specifies that, "Effluent samples shall be collected after treatment, just prior to discharge to ponds or leach trenches..." In addition, the following effluent monitoring parameters are required: flow; turbidity; and chlorine dose. Flow and chlorine dose are measured prior to disinfection and flow, turbidity, and chlorine dose are all measured at the treatment plant and not, "just prior to ponds or leach trenches."

Response: A footnote is already included in the Effluent Monitoring section of the MRP that clarifies the chlorine dose is measured prior to disinfection. This same footnote has been added to the effluent monitoring parameter “Flow” to clarify that it, too, is measured prior to disinfection.

The beginning of the Effluent Monitoring Section of the MRP has also been modified as follows:

Effluent samples shall be collected after treatment, ~~just prior to discharge to ponds or leach trenches,~~ and shall be collected on the same day as influent samples for direct comparison.

Hume Comment No. 11: The Effluent Monitoring Section of the MRP requires continuous chlorine residual monitoring year-round. This monitoring requirement should be modified so that continuous monitoring of chlorine residual is only required when discharge is to the sprayfield; daily monitoring of chlorine residual via grab samples when discharge is to the ponds; and no monitoring required for chlorine residual when discharge is to leach trenches.

Response: In addition to the revisions to the WDRs outlined in Response to Comment No. 4, the Effluent Monitoring Section of the MRP has been revised so that continuous monitoring of chlorine residual is only required when discharge is to the sprayfield; daily monitoring of chlorine residual via grab samples when discharge is to the ponds; and no monitoring required for chlorine residual when discharge is to leach trenches.

Hume Comment No. 12: The Effluent Monitoring section of the MRP requires calculating the CT value on a daily basis year-round. This monitoring requirement should be modified so that daily CT calculations are only required when discharge is to the sprayfield and daily CT calculations are not required when discharge is to the ponds or leach trenches.

Response: The Effluent Monitoring Section of the MRP has been revised so daily CT calculations are only required when discharge is to the sprayfield. CT calculations are not required when discharge is to the ponds or leach trenches.

Hume Comment No. 13: The Leach Trench Monitoring section of the MRP requires the leach trenches to be visually inspected on a daily basis so long as discharge to the leach trenches is occurring. The leach trenches are monitored by a Supervisory Control and Data Acquisition (SCADA) computer system actuated with high level floats and pipe flow indicators that automatically shut off discharge to the leach trenches when high levels occur. Also, leach trenches are most often used in the winter when there is snow on the ground. The visual inspection requirement frequency should be changed to weekly to be consistent with what is currently required or revised to indicate the frequency shall be performed only when safe access to leach trenches is permissible.

Response: The Leach Trench Monitoring Section of the MRP has not been revised to reduce the frequency of the leach trench visual inspections from daily to weekly. However, a footnote has been added to indicate the frequency of monitoring shall be performed only when safe access to the leach trenches is permissible. This revision will make the leach trench visual inspection monitoring consistent with the percolation pond visual inspection monitoring requirements of the MRP.

Hume Comment No. 14: Solids Disposal Specification E.2 indicates, “Any handling and storage of residual sludge, solid waste, and biosolids at the WWTF shall be temporary (i.e., no longer than two years)...” Review of the *Plane English Guide to EPA 503 Biosolids Rule*, Chapter 1, pages 9 and 12, appears to indicate that storage of biosolids can occur for more than two years. The WWTF’s temporary biosolids storage area is clearly not a surface disposal site and any storage of biosolids that would extend beyond two years would be based on, “best management and operational practices.”

Response: Solids Disposal Specification E.2 has been revised to indicate that storage of residual sludge, solid waste, and biosolids at the WWTF for longer than two years may be allowed only after the Discharger makes a demonstration consistent with Section 503.20, Subpart C – Surface Disposal of Part 503 in Title 40 of the Code of Federal Regulations and the additional time is authorized by the Executive Officer.

CVCWA COMMENTS

On 10 October 2012, CVCWA submitted the following comments via email.

CVCWA Comment No. 1: The effluent limitation for chlorine contact time should be deleted.

Response: As indicated in Response to Hume’s Comment No. 6, Effluent Limitation C.5 regarding the CT value requirement has been deleted from the WDRs. However, Section D, Water Recycling Specifications, has been revised to include a specification that states, “the CT value (product of total chlorine residual and modal contact time measured at the same point) shall be at least 450 mg-min/mL at all times with a modal contact time of at least 90 minutes based on peak dry weather design flow.” This specification is included in response to a request by the California Department of Public Health to include this language in WDRs that permit the discharge of Recycled Water.

CVCWA Comment No. 2: The groundwater limitation for total coliform organisms should be revised to apply over a 7-day period as described in the *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, January 2004*, rather than an instantaneous concentration.

Response: Groundwater Limitations F.1 has been revised so that the total coliform organism limit of 2.2 MPN/100mL is over any 7-day period.