

LAKE BERRYESSA RESORT IMPROVEMENT DISTRICT

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March 24, 2008

Mr. Guy Childs
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive # 200
Rancho Cordova, CA 95670

**Subject: Lake Berryessa Resort Improvement District
2008 Tentative Waste Discharge Requirements (WDR) and
2008 Tentative Monitoring and Reporting Program (MRP)
Napa County, California**

Mr. Childs

District staff has reviewed the Tentative Waste Discharge Requirements (WDR) and the Tentative Monitoring and Reporting Program (MRP) requirements that were sent to the District on February 25, 2008. By way of this letter, the District is formally submitting comments/concerns about certain requirements of the tentative orders.

Comments on the Tentative WDRs

Page Two:

From the Tentative WDR:

9. The volumes of the seven wastewater ponds at the facility are as follows:

<u>Pond No.</u>	<u>Max Water Depth at 2-feet of freeboard (feet)</u>	<u>Volume at 2-feet freeboard (acre-feet)</u>	<u>Volume at 2-feet freeboard (million gallons)</u>
1	5	1.7	0.05
2	6	5.57	1.81
3	6	4.07	1.32
4	6	5.47	1.78
5	9	10.11	3.29
6	10	5.05	1.64
7	11	6.9	2.24

District Response:

The above table incorrectly calculates the volume for pond one.

The actual volume of pond one is **0.55 MG**, not 0.05 MG. Using the correct volume for pond one, the total volume in gallons for all seven ponds would be 12.66 MG. The District requests that the volume for pond one be corrected.

Page Five:

From the Tentative WDR:

21. For this facility, any sanitary sewer overflow would consist of domestic wastewater, depending on land uses in the sewage collection system.

District Response:

The District requests a clarification of the above statement.

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From the Tentative WDR:

42. Based on the average total nitrogen concentration in effluent (5 mg/L), and a maximum flow rate (up to 0.097 Mgal/day) at full buildout, the total nitrogen applied to the six acres of land application area each year is expected to be approximately 58 lbs/acre*year. Native grasses are grown on the land application areas. According to the *Western Fertilizer Handbook*, Bermuda turf grasses are capable of taking up approximately 425 lbs/acre*year of nitrogen. However, because the RWD states that the grasses will not be harvested, there are concerns regarding the buildup of nitrogen at the land application areas.

District Response:

The District will agree to harvest the grasses in the spray field area, thereby reducing concern over the build-up of nitrogen in the land application areas. The District requests clarification on the requirements of harvesting the native grass (i.e. is simply cutting the grass enough, or does the District need to remove the cutting from the site?)

Page 11:

From the Tentative WDR:

46. The concentration of TDS in the potable water at the site is approximately 240 mg/L. TDS concentration in the effluent discharged to the land application areas is approximately 620 mg/L. The incremental addition of dissolved salts through water usage at this facility (about 380 mg/L) is higher than the normal range for domestic use and may not be considered reasonable. This Order requires the Discharger to complete salinity BPTC analysis to determine additional best practicable treatment and control measures for salinity constituents.

District Response:

The District requests procedures for conducting a salinity BPTC analysis.

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From the Tentative WDR:

F. Interim Groundwater Limitations

I. Release of waste constituents from any portion of the WWTF and land application areas shall not cause groundwater to:

a. Contain any of the following constituents in concentrations greater than listed or greater than natural background quality, whichever is greater. Note that natural background conditions have not yet been established for the land application areas.

<u>Constituent</u>	<u>Units</u>	<u>Limitation</u>
Boron	mg/L	0.7
Chloride	mg/L	106
Iron	mg/L	0.3
Manganese	mg/L	0.05
Sodium	mg/L	69
Total Coliform Organisms	MPN/100 mL	<2.2
Total Dissolved Solids	mg/L	450 ¹
Total Nitrogen	mg/L	10
Nitrate (as N)	mg/L	10
Ammonia (as NH ₄)	mg/L	1.5
Bromoform	ug/L	4
Bromodichloromethane	ug/L	0.27
Chloroform	ug/L	1.1
Dibromochloromethane	ug/L	0.37

¹ A cumulative impact limit that accounts for several dissolved constituents in addition to those listed here separately [e.g., alkalinity (carbonate and bicarbonate), calcium, hardness, phosphate and potassium].

District Response:

The District is concerned that the proposed limitations on groundwater will, in effect, put the District out of compliance with these WDRs if they are approved in April. Since a report on background water quality is not due to the Board until April 2009, the District requests that any constituent found during the groundwater monitoring process in excess of the above limitations not put the District out of compliance with the WDRS until such time as the background water quality is established.

Page 26:

From the Tentative WDR:

- b. By **1 August 2008**, the Discharger shall submit a technical report documenting that the high level alarms at each of lift stations be installed to notify staff in the event of a power loss or malfunction.

District Response:

The District fully intends to install a complete SCADA monitoring system including high level alarms for the lift stations. However, in order to efficiently install these systems, the District requests that the due date for the installation of the alarms be changed to coincide with the completion of the District's new water treatment facility, which also includes changes/additions to its SCADA system.

In the meantime, the District will purchase an auto-dialer and install it at the water treatment plant. The purpose of the auto-dialer will be to alert the operators of power outages in the District, as with the new pumps and motors recently installed at each lift station (each pump and motor installed with a new back-up pump and motor), we would only expect the levels in the lift stations to rise to the high level point when the power is out. With the operators notified of any power outage, they would be able to utilize the recently purchased trailer mounted emergency generator to pump down the lift station tanks, thereby reducing the potential for an overflow.

Page 26:

From the Tentative WDR:

- c. By **1 August 2008**, the Discharger shall submit a technical report describing measures that will be taken to ensure continuous compliance with the Total Coliform Organisms Effluent limitations in the Order. Those measures may include the installation of a chlorine mixing vessel and contact chamber.

District Response:

The District requests that the submittal of the above technical report be postponed until November 1, 2008, in order to allow the District time to evaluate the performance of new spray field (once approved and constructed) working under current chlorination practices to evaluate whether a change in procedures is necessary.

Page 27:

From the Tentative WDR:

- f. By **1 September 2008**, the Discharger shall submit an *As-Built Report* certifying the completed installation of the land application areas totaling six acres, as described in the Findings of this Order and in compliance with the land discharge specifications.

District Response:

While the District is in the early stages of design of the spray field, the District requests that the due date for the completion report be postponed until November 1, 2008 due to uncertain design, project bidding, and construction schedules. Should the District complete the installation of the spray field prior to November 1, 2008, the District will submit a report before the November 1, 2008 deadline.

Additional District Request:

In addition to the comments on the conditions set forth in the WRD, the District hereby requests that a provision be added to the WDR's that would allow the Executive Officer the authority to, at their discretion, extend submittal due dates upon request by the District.

Comments on the Tentative MRP

Page Two:

From the Tentative MRP: EFFLUENT MONITORING

Effluent samples shall be collected prior to the discharge to the land application areas and shall be representative of the volume and nature of the discharge. Effluent monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
BOD ₅	mg/L	Grab/Composite	Weekly	Monthly

District Response:

After review of the proposed effluent monitoring conditions, District staff questions the need for weekly BOD₅ testing as shown above.

Since BOD is directly related to the Dissolved Oxygen (DO) content in the water (a low DO typically indicates an elevated BOD, and vice versa), District staff believes that the frequency of BOD testing should also be directly related to the DO level at the point prior to the discharge to the land application areas, or in this case pond seven.

In reviewing the weekly DO readings for pond seven for 2007, and for January and February 2008, the weekly DO levels for pond seven never dropped below 4.1 mg/L, well above the requirement in the current and tentative WDR's which state that the DO levels in the ponds must remain at or above 1.0 mg/L at all times. Given this information, the District proposes the following BOD monitoring schedule for EFFLUENT MONITORING:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
BOD ₅	mg/L	Grab/Composite	Monthly*	Monthly

*Should the weekly DO levels for pond seven, as required under POND MONITORING in the proposed MRP, fall below 1.0 mg/L, an additional BOD₅ test will be taken and reported on the District's monthly self-monitoring report.

Page Four:

From the Tentative MRP: GROUNDWATER MONITORING

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Trihalomethanes ²	µg/L	Grab	Quarterly	Quarterly

District Response:

The District has completed two quarters of Trihalomethane testing (See attached October 2007 and February 2008 water quality testing results). There was no detection of Bromoform, Bromodichloromethane, Chloroform, or Dibromochloromethane in the water samples taken from the five wells. The District requests that monitoring for Trihalomethanes be reduced to annual testing, unless a detection of Trihalomethanes is found, at which point the District shall begin quarterly sampling.

Thank you for the opportunity to comment on the tentative Waste District Requirements for the District. We trust that you will consider our comments/requests prior to submitting the tentative WDR's/MRP to the Board.

Should you have any questions or concerns regarding anything written in this document, please contact Nathan Galambos at 707-259-8371, or ngalambo@co.napa.ca.us, or Annamaria Martinez at 707-259-8378, or amartine@co.napa.ca.us.

Sincerely,



Robert J. Peterson
Director of Public Works