

INFORMATION SHEET

WATER RECYCLING REQUIREMENTS ORDER NO. ~~R6-2006-TENTATIVE~~ R5-2007-TENTATIVE

GRIZZLY RANCH GOLF LLC
GRIZZLEY CREEK GOLF COURSE IRRIGATION
PLUMAS COUNTY

GENERAL INFORMATION

The Grizzly Creek Golf, LLC (hereafter User), owns a 18-hole golf course (hereafter Use Area) referred to as the Grizzly Creek Golf Course proposes to recycle disinfected tertiary recycled water from the Grizzly Ranch Community Services District (GRCS D), hereafter (Producer).

The recycled water (at full build out of the development) will account for less than 12% of the total water used for irrigation of the golf course (at full build out). The GRCS D will treat wastewater from approximately 380 single-family residences at full build out. Currently, there are approximately 20-25 single-family residences constructed at this time, with less than 5 residences permanently occupied.

The GRCS D is located in Plumas County, on Grizzly Road, approximately 2 miles north of Highway 70. The intersection of Grizzly Road and Highway 70 is approximately 2 miles east of the Town of Portola.

The Producer owns and operates a wastewater collection system (sewer system) and wastewater treatment plant (Plant), and provides sewer service to domestic and commercial users within the GRCS D. As part of the wastewater treatment and disposal process, the Producer will also produce tertiary treated recycled water that can be used for golf course irrigation.

The Producer's facility is located near the southwest boundary of the property in the GRCS D. The facility includes a Sequencing Batch Reactor (SBR) for removal of BOD, TSS, and nitrogen. The California Department of Health Services (DHS), Division of Drinking Water, has reviewed specifications for the SBR, as well as other items critical to compliance with recycling requirements as required in the California Code of Regulations, Title 22 CCR. Additionally, the facility has multimedia filters for additional removal of BOD, TSS, and turbidity, in preparation for disinfection to meet the recycled water requirements of Title 22 for tertiary quality recycled wastewater.

The Producer's Plant has a design average dry weather flow of 0.08 mgd. Treated effluent from the Plant is discharged to Big Grizzly Creek during the winter. The Plant is designed to provide tertiary treatment with average concentrations of BOD less than 10 mg/L; and average suspended solids less than 10 mg/L. The Plant is regulated under Waste Discharge Requirements Order No. R5-2005-0170 (NPDES No. CA0085162).

Area soils consist of silty clays. Average annual precipitation is about 21-24 inches/year, according to information supplied by the Discharger. Groundwater in the Plant and Use Area

vicinity occurs in an unconfined aquifer at depths ranging from 40 to 42 feet below ground surface (bgs). Background analytical data is summarized in the following table:

<u>Constituent</u>	<u>Units</u>	<u>Primary Drinking Water (Maximum Contaminant Levels)</u>	<u>Background Groundwater Quality</u>
<u>Total Dissolved Solids</u>	<u>mg/L</u>	<u>1,000¹</u>	<u>140 – 421</u>
<u>pH</u>	<u>pH units</u>	<u>6.5 – 8.5</u>	<u>7.0 – 7.98</u>
<u>Electrical Conductivity</u>	<u>umhos/cm</u>	<u>900</u>	<u>420 – 600</u>
<u>Hardness</u>	<u>mg/L</u>	<u>NA</u>	<u>7 – 18</u>
<u>Iron</u>	<u>mg/L</u>	<u>0.3</u>	<u>0.01 – 0.42</u>
<u>Manganese</u>	<u>mg/L</u>	<u>0.05</u>	<u>0.03 – 0.95</u>
<u>Temperature</u>	<u>°C</u>	<u>NA</u>	<u>8 – 11</u>
<u>Calcium</u>	<u>mg/L</u>	<u>NA</u>	<u>92</u>
<u>Magnesium</u>	<u>mg/L</u>	<u>NA</u>	<u>11</u>
<u>Sodium</u>	<u>mg/L</u>	<u>NA</u>	<u>23</u>
<u>Potassium</u>	<u>mg/L</u>	<u>NA</u>	<u>1.6</u>
<u>Chloride</u>	<u>mg/L</u>	<u>500¹</u>	<u>3.2</u>
<u>Sulfate</u>	<u>mg/L</u>	<u>500¹</u>	<u>170</u>
<u>Nitrate</u>	<u>mg/L</u>	<u>10</u>	<u>0.09</u>

¹Recommended upper level

The Basin Plan encourages recycling wherever feasible. The beneficial uses of underlying groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.

WATER RECYCLING REQUIREMENTS

The GRCSO will treat the wastewater to the standards required in Title 22 for unrestricted golf course irrigation.

The DHS has established statewide recycling water criteria effective 2 December 2000 in Chapter 3, Division 4, Title 22, California Code of Regulations (CCR), section 60301 et seq. (hereafter Title 22). The Order, as proposed, would require the User comply with Title 22 CCR requirements.

The Order, as proposed, would require the User to implement specific measures relating to the use of recycled water. These include (a) posting of warning signs around use areas to inform the public about the use of recycled water, (b) maintaining setback distances between recycled water use areas and domestic/irrigation wells, (c) requiring that recycled water be applied at hydraulic and agronomic rates considering the temperature, soil, climate, fertilizers applied, and irrigation management system. The Order, as proposed, would require the Producer to monitor the quality of recycled water and require the User to monitor its application in accordance with the proposed Monitoring and Reporting Program. Specifically, the proposed Order would require the User to report amounts of recycled water applied to the golf course (in acre-feet); inspect Use Area on at least a monthly basis to ensure that water recycling is in compliance with the proposed Order (e.g., setback distances between irrigation/domestic wells and recycled water applications); and provide the Central Valley Water Board with monthly and annual Recycled Water Quality Reports.

The conditions of discharge in the proposed Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. It may be appropriate to reopen the Order if applicable laws and regulations change, but the mere possibility that such laws and regulations may change is not sufficient basis for reopening the Order. The California Water Code requires that water recycling requirements implement all applicable requirements.

BASIS FOR PERMIT EFFLUENT LIMITATIONS

These requirements are consistent with and implement the Chapter 3, Division 4, Title 22, California Code of Regulations (CCR). When the recycled water is being applied to the golf course, and application is not restricted (e.g. the recycled water can be applied at any time of the day, including those times that golfers are present), Article 1, Chapter 3, Division 4, Title 22 CCR requires that:

1. The wastewater be oxidized, which requires that its organic matter is stabilized, nonputrescible, and contains dissolved oxygen (§60301.650);
2. The wastewater be filtered, which requires that it be coagulated and passed through a specified filter media, and that it meets specific effluent turbidity criteria (§60301.320);
3. For a chlorine disinfection process, the product of total chlorine residual and modal contact time (CT) be a minimum of 450 mg-minutes per liter and the contact time be a minimum of 90 minutes (§60301.230(a)(1));
4. The median count of total coliform bacteria measured in the disinfected effluent not exceed 2.2 MPN /100 mL utilizing the bacteriological results of the last seven days for which analyses have been completed (§60301.650(2)(b));
5. The count of total coliform bacteria measured in the disinfected effluent does not exceed 23 MPN/100 mL in more than one sample in any 30 day period (§60301.650(2)(b)), and;
6. The count of total coliform bacteria measured in the disinfected effluent never exceeds 240 MPN/100 mL (§60301.650(2)(b)).
7. The turbidity of the recycled water shall not exceed any of the following:
 - a. An average of 2 Nephelometric turbidity units (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

CALIFORNIA ENVIRONMENTAL IMPACT REPORT

On 28 June 2000, Plumas County certified the certified the Environmental Impact Report for the Wastewater Treatment Facilities Improvement and Reclamation Project in accordance with the California Environmental Quality Act (CEQA) (Public Resource Code Section 21100, et seq.). The County determined that the use of recycled water for this project would not have a significant impact on the environment (State Clearinghouse #97072003 & #89051521). The

Central Valley Water Board has considered the Environmental Impact Report and concurs that the water recycling project will not result in significant impacts to water quality.

PROCEDURES FOR REACHING FINAL DECISION ON DRAFT PERMIT

The tentative waste discharge requirements have been sent to the User and interested parties for review (at least 30 days) prior to formal presentation to the Central Valley Water Board. Any contested items on the permit will be heard and considered for change prior to formal adoption at the Board Meeting.

FOR FURTHER INFORMATION

For further information or questions regarding this Water Recycling Requirements, contact Greg Cash at the Central Valley Water Board in Redding at (530) 224-3208.