

## INFORMATION SHEET

ORDER R5-2017-XXXX  
MCCLOUD COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT/DISPOSAL PONDS  
SISKIYOU COUNTY

### Background

McCloud Community Services District (Discharger) owns and operates the McCloud Wastewater Treatment Plant (WWTP). On 11 May 2016 the Discharger submitted a Report of Waste Discharge (RWD) to apply for renewal of Waste Discharge Requirements (WDRs) for an existing publicly owned WWTP. An amended RWD was submitted on 7 December 2016. On 20 December 2016 the RWD was deemed complete.

The Discharger maintains approximately 700 connections which equate to approximately 855 household equivalents and no industrial users. Ponds (1, 2, and 3) were constructed in 1965; Pond 4 and a land-application area were added in 1996. In 2000 the Central Valley Regional Water Quality Control Board (Central Valley Water Board) issued Cease and Desist Order (CDO) R5-2000-0109 to the Discharger to address the Facility's aging wastewater collection system. The collection system was fully replaced between 2002 and 2006 at a cost of 11 million dollars. The WWTP is currently regulated under WDRs Order 97-083 which allows discharge to 4 unlined treatment ponds and a land application area.

### EXISTING FACILITY

The disposal/treatment system consists of inlet structures (flume, ultrasonic flow meter, and two distribution boxes), and four unlined ponds. The ponds can be operated in series. However, Pond No. 1 has been the primary discharge pond except for times of sludge removal since 2004. Inlet flow can be diverted to Pond No. 2 West or Pond No. 3 to allow drying and cleanout. Pond areas are approximately 8.3, 6.9, 4.8, and 0.9 acres for Pond Nos. 1 through 4 respectively; with Pond 2 consisting of two separate cells (East & West). The 1997 permit allowed for the discharge of wastewater to an adjacent land application area, this area has not been used in 10 years due to reductions in wastewater flows.

The disposal ponds receive approximately 155,000 gallons per day (gpd) of domestic sewage (2013-2016) from 700 residential and commercial connections; there are no industrial connections to the system. This flow volume is down from 255,000 gpd in 1997; mostly due to decreasing population after the McCloud Saw Mill closed in 2001 and the reduction in inflow and infiltration after upgrading the collection system. The design capacity for the facility is 300,000 gpd.

Influent wastewater does not receive treatment before entering the ponds. Treatment in the ponds consists of natural aeration, and decomposition. After percolating through a shallow soil profile of silts, sands and gravels, effluent migrates into fractured bedrock underlying the ponds. Dye tracer studies have been performed with no observed impacts to nearby Squaw Valley Creek. Secondary testing of Squaw Valley Creek has also indicated no impacts from pond discharge.

Constituents of concern that have the potential to degrade groundwater include salts (primarily TDS, sodium, and chloride), and nutrients, as discussed below.

<b>Parameter</b>	<b>Units</b>	<b>Pond 1, 03/16/16</b>	<b>MW-1 (upgradient) 03/16/16</b>	<b>MW-3 (downgradient) 03/16/16</b>	<b>EFF- 1, (Pond 1, Western Berm) 5/26/16</b>
Sodium	mg/L	24	12	4.9	13
Potassium	mg/L	10	4.6	0.52 <sup>J</sup>	5.3
Bicarbonate	mg/L	210	36	36	89
Chloride	mg/L	16	3.2	0.90	8.35
Nitrate as N	mg/L	<0.02	0.1	0.73	<0.02
Ammonia as N	mg/L	16	0.056 <sup>J</sup>	0.028 <sup>J</sup>	--
Total Kjeldahl Nitrogen	mg/L	34	5.7	<0.08	--
Total Dissolved Solids @ 180 C	mg/L	320	55	47	110
Sulfate	mg/L	5.8	1.6	0.91 <sup>J</sup>	0.54 <sup>J</sup>
Turbidity	NTU	800	14.21	3.01	3.26
Dissolved Oxygen	mg O/L	<0.5	5.30	2.54	2.56
pH	pH units	6.95	7.79	7.49	5.94
Electrical Conductivity	µmhos/cm	420	95	67	236
Temperature	°C	20.1	11.4	8.7	15.4

<sup>J</sup> denotes Lab interference, -- denotes Not Analyzed

## GROUNDWATER CONDITIONS

California Department of Water Resources (19 well logs) from domestic wells in the area, average total depth of well 120 feet below ground surface (bgs), average depth to static water 34 feet bgs. Well yields range from 10 to 100 gpm. Dye tracer studies have

been performed with no observed impacts in the nearby Squaw Valley Creek or other areas of known/suspected groundwater surfacing/discharge. Analysis of samples from Squaw Valley Creek also indicated no impacts from pond discharge. The distance from the WWTP to the closest well is unknown; however there are no wells within at least a half mile downgradient of the ponds as this property is owned by the district.

Three groundwater monitoring wells (MW-1 through MW-3) were installed in March 2016 and one additional well (MW-4) in May 2016 in response to the Central Valley Water Board's request for a new RWD. Monitoring Well MW-2 installed east or cross gradient of the ponds has never contained water. Data collected for the wells indicates groundwater gradient is south-southwest, generally following surface topography. Shallow groundwater beneath the site ranges from approximately 2 to 5 feet bgs and is likely seasonal and precipitation dependent.

### **Proposed Order Terms and Conditions**

#### **DISCHARGE PROHIBITIONS, SPECIFICATIONS AND PROVISIONS**

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 22, section 66261.1 et seq., is prohibited.
3. Treatment system bypass of untreated or partially treated waste is prohibited, except as allowed by Standard Provision E.2 of the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*.
4. Discharge of waste at a location or in a manner different from that described in the Findings is prohibited.
5. The Discharger shall not allow toxic substances to be discharged into the wastewater treatment system or land application areas such that biological treatment mechanisms are disrupted.
6. Discharge to the overland flow/land application area is prohibited unless approved by the Executive Officer.
7. The discharge of offsite waste transported to the WWTP for disposal is prohibited unless approved by the Executive Officer.

#### **MONITORING REQUIREMENTS**

Section 13267 of the California Water Code authorizes the Central Valley Water Board to require the Discharger to submit monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State.

The proposed Order includes influent, effluent, pond, and groundwater monitoring. This monitoring is necessary to characterize the discharge, evaluate compliance with effluent limitations prescribed by this Order, and evaluate groundwater quality and the extent of degradation, if any, caused by the discharge.

## **REOPENER**

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. The proposed Order would set limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the order.

## **LEGAL EFFECT OF RESCISSION OF PRIOR WDRS OR ORDERS ON EXISTING VIOLATIONS**

The Board's rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect. The Central Valley Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.