

INFORMATION SHEET

INFORMATION SHEET ORDER R5-2017-XXXX
SHASTA COUNTY SERVICE AREA NO. 8
PALO CEDRO WASTEWATER TREATMENT PLANT
SHASTA COUNTY

BACKGROUND

Shasta County (Discharger) owns and operates the Palo Cedro Wastewater Treatment Plant (WWTP). Palo Cedro is a small valley community in central Shasta County. The WWTP serves a population of approximately 405 and has approximately 132 residential connections and 31 commercial connections. The facility has no industrial connections.

The WWTP consists of headworks, two lined aeration basins subdivided into four aeration cells, three evaporation/percolation ponds with compacted soil liners, a 6.2-acre flood irrigation field and two land application spray field areas totaling 35.8 acres. A drainage pond collects runoff from the fields and pumps it to Storage Reservoir 1. The WWTP was previously regulated under Waste Discharge Requirements Order 99-090 which allowed an average dry weather flow (ADWF) of 0.117 million gallons per day (mgd). However, current ADWF is estimated to be 0.042 mgd based on 2010 through 2016 summer flows (July-September).

On 19 August 2016, the Discharger submitted a Report of Waste Discharge (ROWD) to apply for renewed WDRs for the existing publicly owned wastewater treatment facility. Additional information to complete the ROWD was submitted on 28 October 2016.

WASTEWATER TREATMENT AND DISPOSAL

The Cross Creek Pump Station and the Silverbridge Pump Station, each equipped with a wet well, two pumps and 1442 feet and 1185 feet of force main, respectively, convey wastewater to a gravity collection system draining to the Main Pump Station. All wastewater enters the Main Pump Station from which it is pumped through 17,200 feet of force main to the treatment plant. An air injection facility is located 10,000 feet from the Main Pump Station.

At the WWTP wastewater passes through two bar screens and a distribution box where it is split equally between two aeration basins. From the aeration basins, effluent gravity flows to three evaporation/percolation ponds, Storage Reservoirs 1-3, which are operated in series.

In dry weather months, a lift station pumps water from Storage Reservoir 3 to the 6.2-acre Flood Irrigation Area and two land application spray field areas totaling 35.8 acres. A Drainage Pond captures runoff from the land application areas where it is pumped back to Storage Reservoir 1.

GROUNDWATER CONDITIONS

The WWTP is in the Enterprise Flat hydrologic subarea (No. 508.10) as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986.

The DWR Groundwater Information Center Interactive Map Application shows regional groundwater quality is high: nitrate as nitrogen concentrations are below the maximum contaminant level (MCL) of 10 mg/L (results range from <0.1 to 10 mg/L) and electrical conductivity ranges from 110-147 µmhos/cm.

Monitoring and Reporting Program No. 99-090 required the Discharger to develop a monitoring well network at the WWTP. A 2001 Subsurface Investigation Report showed a minimum of 30 feet of unsaturated clays in conjunction with a hardpan layer present within 5 feet of the ground surface underlies the WWTP. On the basis of these findings, the Water Board removed the requirement to install a groundwater monitoring network.

Nearby well logs demonstrate that groundwater is first encountered at 80-100 feet below ground surface, and often up to 140 feet. Groundwater flows from north to south toward Stillwater Creek and the Sacramento River.

Proposed Order Terms and Conditions

DISCHARGE PROHIBITIONS, SPECIFICATIONS AND PROVISIONS

The proposed Order prohibits discharge of wastes to surface waters or surface water drainage courses.

The proposed Order sets an average daily dry weather flow limit of 0.117 mgd and a peak wet weather flow limit of 0.65 mgd.

The proposed Order sets the following effluent limits:

Constituent	Units	Limit
BOD ₅ ¹	mg/L	80 (30-Day Average), 40 (7-Day Average)
Total Suspended Solids	mg/L	80 (30-Day Average), 40 (7-Day Average)

¹ 5-day biochemical oxygen demand at 20°C.

The proposed Order's provisions regarding storage the evaporation/percolation ponds' dissolved oxygen and freeboard are consistent with Central Valley Water Board policies for the prevention of nuisance conditions and are applied to all similarly-situated facilities.

The proposed Order prescribes effluent and groundwater limitations that ensure the discharge does not affect present and anticipated beneficial uses of groundwater.

MONITORING REQUIREMENTS

Section 13267 of the 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 solids 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.