

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER R5-2015-XXXX
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION
CALIFORNIA DEPARTMENT OF FORESTRY FIRE ACADEMY
MULE CREEK STATE PRISON WASTEWATER TREATMENT PLANT
AMADOR COUNTY

Background

The Mule Creek State Prison Wastewater Treatment Plant (WWTP) provides wastewater treatment and disposal to CDCR Mule Creek State Prison, the Preston Youth Correctional Facility (a Division of CDCR), and the California Department of Forestry Fire Academy. CDCR owns and operates the WWTP.

WDRs Order 5-00-088, adopted by the Central Valley Water Board on 28 April 2000, allows an average dry weather discharge flow of 0.74 million gallons per day (MGD) with a peak wet weather flow of 2.2 MGD. Based on the influent flow data for 2013 and 2014, the annual average flow is approximately 0.35 MGD. Flows from the Mule Creek State Prison represent approximately 95% of the current wastewater flow to the WWTP.

CDCR is currently constructing a 1,584-inmate Mule Creek Infill Complex (MCIC) within an area historically used for land disposal of treated effluent. Approximately 57 out of original 260 acres of land application areas (LAAs) have been developed for the new MCIC site. In order to replace the LAAs lost due to MCIC construction, CDCR proposed 47 acres of new LAAs onsite. CDCR also proposed to make some improvements at the WWTP. Therefore, Order 5-00-088 will be replaced with this Order.

Existing Facility and Discharge

The WWTP consists of two bar screenings, an oxidation ditch, two parallel clarifiers, a chlorine contact pipe, a sludge belt press, sludge drying beds, an Effluent Storage Reservoir, and LAAs. The effluent is disposed of via spray irrigation on the LAAs and by evaporation and percolation from Effluent Storage Reservoir. Effluent Storage Reservoir typically provides seasonal storage of effluent during the wet season. In addition, Mule Creek State Prison is under contract to deliver up to a maximum of 350 acre-feet of wastewater annually to Preston Reservoir. Preston Reservoir serves as a means of conveyance of effluent flows from the Amador Regional Sanitation Authority (ARSA) system and the Mule Creek WWTP to the City of Lone wastewater disposal system or to the Lone Tertiary Treatment Plant for further treatment and reuse at the Castle Oaks Golf Course.

Planned Changes in the Facility and Discharge

Due to loss of the LAAs for the MCIC project, CDCR proposed to install 47 acres of new LAAs. In addition, CDCR proposed to make improvements to the WWTP. All the modifications and improvements will be completed by April 2017. After completion of the MCIC project, the total inmate population will increase from current 2,800 to approximately 4,400. CDCR does not request to increase the existing flow limits in WDRs Order 5-00-088.

Proposed improvements to the wastewater treatment facilities consist of reliability and performance improvements to the existing treatment processes, including:

- a. Addition of aeration to the existing oxidation ditch;
- b. Addition of a third larger clarifier;
- c. Replacement of the chlorine contact pipe with a chlorine contact basin to improve disinfection efficiency;
- d. Replacement of the existing sand and gravel sludge drying beds with concrete sludge drying beds, and
- e. Use of effluent for treatment process instead of potable water.

Discharge Prohibitions, Specifications and Provisions

The Provisions also require submittal of the following technical reports: *Wastewater Treatment Plant Improvements Completion Report, Groundwater Monitoring Well Disinfection Workplan and Sampling and Analysis Plan, Groundwater Monitoring Well Installation Workplan and Groundwater Monitoring Well Installation Completion Report.*

The Monitoring and Reporting Program is designed to verify compliance with effluent limitations, groundwater limitations, and operational requirements of the WDRs.