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# California Regional Water Quality Control Board Central Valley Region

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Arnold  
Schwarzenegger  
Governor

8 June 2010

Mr. Daniel E. Blackwell  
Chief of Maintenance and Construction  
United States Department of the Interior  
Sequoia-Kings Canyon National Park  
47050 Generals Highway  
Three Rivers, CA 93271

## NOTICE OF APPLICABILITY

### ***WATER QUALITY ORDER NO. 97-10-DWQ, GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO LAND BY SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS, U.S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE, SEQUOIA-KINGS CANYON NATIONAL PARK, BUCKEYE WWTF, TULARE COUNTY***

The United States Department of the Interior, National Park Service, Sequoia-Kings Canyon National Park currently discharges disinfected secondary treated effluent from Buckeye Wastewater Treatment Facility (WWTF) to land. Waste Discharge Requirements (WDRs) Order No. 81-097 currently regulates the discharge. The WDRs are obsolete, inconsistent with current plans and policies of the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board), and need to be updated.

On 12 April 2010, Central Valley Water Board staff received your letter requesting coverage for the Buckeye WWTF under Water Quality Order No. 97-10-DWQ, General Waste Discharge Requirements for Discharges to Land by Small Domestic Wastewater Treatment Systems (hereafter General Order).

Based on the findings of the original WDRs, recent information from self-monitoring reports and communication with National Park staff, the discharge meets the conditions of the General Order. All the requirements contained within the General Order described as applicable to "All Small Domestic Systems," "Activated Sludge Systems," and "Surface Disposal Systems" apply to the Buckeye WWTF. The enclosed Monitoring and Reporting Program (MRP) No. R5-2010-0807 is hereby incorporated into this Notice of Applicability by reference. MRP No. R5-2010-0807 replaces the MRP associated with the General Order. You are hereby assigned General Order No. 97-10-DWQ-R5063.

***California Environmental Protection Agency***



## LOCATION

The Discharger operates the Buckeye WWTF and spray field disposal facility just within southwestern Sequoia National Park boundaries, in Tulare County, about five miles northeast of the community of Three Rivers. The facilities are near the Park Headquarters at Ash Mountain, adjacent to the north of Generals Highway (Highway 198) and the Middle Fork of the Kaweah River in the northeast quarter of Section 4, T17S, R29E, MDB&M. The WWTF, a storage pond, and the spray field are at an elevation of approximately 1,400 feet above mean sea level.

The WWTF and disposal area are in the Tulare Lake Basin. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition* (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin.

## DESCRIPTION

The Buckeye WWTF treats domestic wastewater from the Buckeye Residential Area of Sequoia National Park, a small development with 16 seasonally occupied government-owned homes. The average daily flow is approximately 1,500 gpd during the WWTF's operating season, typically about 200 days per year from April or May through November. Operators pump the WWTF dry and shut it down for the winter months. Though the design flow for the WWTF is 15,000 gpd, previous Waste Discharge Requirements limited monthly average flow to 3,600 gpd.

The WWTF, built in 1958-59, is an extended aeration activated sludge package treatment plant, consisting of headworks (communitor and bar screen), an aeration basin, a secondary clarifier, and a lined pond designed for effluent storage. Some additional solids settle out in the effluent storage pond. The pond, lined with a polyethylene synthetic rubber (Hypalon), was designed for a minimum retention time of 100 days of flow at 3,600 gpd for wet weather storage. Prior to discharge to the spray field, effluent is chlorinated in a contact chamber at the edge of the pond.

The 0.4-acre spray field is adjacent to the effluent storage pond about 700 feet west of the WWTF. A 1,700 gpd flow results in a hydraulic loading rate of about one inch per week (or five feet per year). Land adjacent to the spray field to the west is privately-owned.

Based on United States Geological Survey (USGS) maps surrounding the WWTF and spray field area, soils are a Vista coarse sandy loam (silty sand). The soil is weathered from quartz-diorite or granite. Bedrock is 2 to 7 feet deep. Site-specific testing showed percolation rates from 10 minutes per inch to 28 minutes per inch. Surface slopes in the area range from about 10 percent near the pond to about 20 percent in the spray field. The soils support a cover of shrubs, with some clusters of oak trees. In open areas there are growths of annual grasses and forbs. The spray field is fenced to preclude public contact and prevent animals from damaging spray nozzles. Onsite observation has revealed no groundwater springs or seepage in the spray field area.

The majority of groundwater resides in fractured bedrock. The WWTF and spray field are in the Three Rivers Area of the Tulare Lake Basin. The Basin Plan designates beneficial uses for groundwater of municipal and domestic supply.

Average annual precipitation at nearby Ash Mountain Headquarters is about 25.4 inches, all of which is rain. Surface drainage in the vicinity of the pond and spray field is towards the Middle Fork of the Kaweah River, about 1 mile away. Sycamore Creek, an intermittent stream that flows into the Middle Fork of the Kaweah River, is about 100 feet lower in elevation than the WWTF. A Southern California-Edison Company domestic water supply flume is about 10 to 20 feet lower than the WWTF and about 50 feet away. Within 300 feet of the WWTF there are several commercial facilities and homes which draw water directly from the Middle Fork of the Kaweah River for domestic use.

Water quality of the Middle Fork of the Kaweah River is excellent, with electrical conductivity around 100  $\mu\text{mhos/cm}$ . The Basin Plan specifies the following beneficial uses of the Kaweah River above Lake Kaweah: municipal and domestic water supply (MUN); hydropower generation (POW); water contact and non-contact recreation (REC-1 and REC-2); warm and cold freshwater habitat (WARM and COLD); wildlife habitat (WILD); rare, threatened, and endangered species (RARE); spawning, reproduction, and/or early development (SPWN); and freshwater replenishment (FRSH).

A well used as a water source for fire suppression (not for domestic supply due to elevated concentrations of arsenic) lies approximately 480 feet east of the pond and spray field, and approximately 180 feet from the WWTF.

The old, unlined 400,000-gallon evaporation pond adjacent to the WWTF remains as an emergency storage pond. The WWTF does not have backup electricity, but the Park maintains that the old pond is plumbed to receive effluent in case of emergency, and has at least 250 days of storage capacity.

This Notice of Applicability (NOA) regulates the Buckeye WWTF and its discharge of domestic wastewater to land. The Central Valley Water Board will consider an order rescinding WDRs Order No. 81-097 at an upcoming meeting.

## **FACILITY-SPECIFIC REQUIREMENTS**

1. Discharge of wastewater at a location or in a manner different from that described above is prohibited.
2. The WWTF shall be operated in accordance with the requirements contained in the General Order.
3. There shall be no discharge to the spray field during periods of precipitation or runoff, or under saturated soil conditions.
4. The Discharger shall submit the required annual fee (as specified in the annual billing issued by the State Water Resources Control Board) until the NOA is officially terminated.

5. Failure to abide by the conditions of the General Order and this letter authorizing applicability, including its supplemental monitoring and reporting requirements (MRP No. R5-2010-0807), could result in enforcement actions, as authorized by provisions of the California Water Code.

If you have any questions regarding this NOA, please contact Mr. Steve Popenoe at (559) 444-2418.

*Original signed by: Clay L. Rodgers for*

Pamela C. Creedon  
Executive Officer

Enclosures:           Water Quality Order No. 97-10-DWQ  
                              Monitoring and Reporting Program No. R5-2010-0807  
                              Standard Provisions and Reporting Requirements