

INFORMATION SHEET

ORDER NO.
CLAYTON REGENCY LLC
CLAYTON REGENCY MOBILE HOME PARK
CONTRA COSTA COUNTY

The Clayton Regency Mobile Home Park is located west of the town of Brentwood on Marsh Creek Road. The mobile home park has spaces for 192 tenants, but occupancy in recent years has been less than capacity. The on-site wastewater treatment system previously consisted of two septic tanks and leachfields.

The Discharger has constructed major improvements to the wastewater treatment system to protect water quality. The improvements include a package treatment plant to provide secondary treatment, denitrification and disinfection, and new pressure-dosed at grade mound systems for effluent disposal. The existing septic tanks will continue to be used for primary treatment of domestic wastewater and will also serve as flow equalization tanks. Treated, disinfected wastewater will be conveyed to a pumping tank for discharge to the subsurface disposal system. The package plant is designed to treat average daily dry weather flows of 46,000 gpd and peak month average daily flows of 52,000 gpd.

Treated and disinfected effluent will be discharged primarily to a new at-grade mound leaching system. The new 50,000 square foot mound system will be pressure dosed, and each zone will be allowed to rest between applications. The pressure-dosing system is automated and is designed to automatically switch the flow to the next dosing zone at a preset interval. The upper leachfield has been reconstructed as a pressure-dosed at-grade mound system covering 10,000 square feet. The lower leachfield will be used only for emergency bypass conditions. The combined average daily dry weather disposal capacity of the new leach field and the reconstructed upper leachfield is 48,000 gpd.

Groundwater is typically encountered at 11 to 26 feet below ground surface, and generally flows towards Marsh Creek. The facility has nine groundwater monitoring wells completed within the shallow saturated zone. Based on groundwater monitoring data for these wells since 2001, the existing leachfields and brine disposal wells have caused concentrations of ammonia, nitrate nitrogen, dissolved solids, and coliform organisms to exceed the applicable water quality limits. Groundwater TDS concentrations beneath the lower leachfield are likely attributable to its former use for RO brine disposal. Since the brine discharge was ceased, TDS concentrations in all three wells have been decreasing.

The derivation of key specifications and provisions in the proposed Order is discussed below.

Effluent Limitations and Effluent Monitoring

Because of the proximity of the water table, the discharge may pose a threat to groundwater quality. Therefore, it is appropriate to require frequent treatment system and effluent monitoring to ensure that best practicable treatment and control (BPTC) and the highest water quality consistent with the maximum benefit to the people of the State will be achieved.

The limitations are based on the design proposed in the Report of Waste Discharge and should be easily achievable with proper system operation and maintenance.

Groundwater Limitations, Groundwater Monitoring, and Provisions F.1.d and F.1.e

As stated above, shallow groundwater beneath the existing leachfields has been degraded. The new wastewater treatment system should be able to mitigate some, if not all, of the degradation over time. The Discharger has not provided any documentation showing that it should be allowed to degrade groundwater consistent with State Board Resolution No. 68-16, and therefore no groundwater degradation is allowed. This Order requires quarterly groundwater monitoring to determine whether the degradation is decreasing. If degradation continues unabated, then the Discharger must either show that it complies with Resolution No. 68-16 or propose facility improvements to prevent such degradation.

The Discharger is required to complete a statistical determination of background groundwater quality (Provision F.1.d), perform an annual assessment of groundwater degradation, and re-evaluate groundwater pollution beneath the existing leachfields in five years (Provision F.1.e).

Provision F.1.a

The wastewater treatment system is mechanically complex and relies on diligent attention to inspection, monitoring, and maintenance to ensure compliance with the Effluent and Groundwater Limitations of this Order. The Report of Waste Discharge states that the Discharger will retain a certified wastewater treatment plant operator. Therefore, Provision F.1.a requires that the Discharger submit documentation demonstrating that a certified wastewater treatment plant operator has been retained to perform all operation, maintenance, and routine monitoring of the wastewater treatment system.

Provisions F.1.c

The wastewater treatment and disposal system is complex and will be constructed from equipment obtained from more than one manufacturer. Therefore, Provision F.1.c requires that the Discharger submit a detailed Operation and Maintenance Manual to ensure that the operator understands the appropriate inspection, monitoring, and maintenance protocols.