

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER R5-2013-XXXX
EXXONMOBIL PRODUCTION COMPANY
POST-CLOSURE MAINTENANCE AND CORRECTIVE ACTION
HILL LEASE SURFACE IMPOUNDMENTS
SOUTH BELRIDGE OIL FIELD, KERN COUNTY

ExxonMobil Production Company (Discharger) owns and maintains a former oil field produced water disposal facility contained four unlined surface impoundments in the South Belridge Oil Field. The former impoundments cover 17½ acres and received the Discharger's non-hazardous oil field produced water and treatment backwash water (wastewater) for disposal by evaporation and percolation. Disposal of wastewater occurred from the 1950s until December 2006.

On 4 June 2004, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order No. R5-2004-0080. The proposed WDRs would classify the facility as Class II surface impoundments in accordance with California Code of Regulations, Title 27, section 20090(b). The WDRs included a Monitoring and Reporting Program and a time schedule to close the facility.

On 23 June 2006, the Central Valley Water Board adopted Cease and Desist Order No. R5-2006-0064 extending the compliance dates in the WDRs to: (a) complete the treatment plant improvements and cease wastewater discharge to the impoundments; and (b) submit a report describing the results and conclusions of a hydrogeologic investigation and including a groundwater corrective action plan.

From August 2009 to July 2011, the Discharger closed the facility with some residual waste remaining in place beneath an engineered cover soil. Closure activities included excavation of waste and significantly impacted soil, confirmation soil sampling to determine that waste and significantly impacted soil were excavated, construction of a one-foot foundation, a minimum one-foot of clean soil as final cover, and submittal of a Closure Certification Report. The Report certified, and Central Valley Water Board staff concurred that the facility was closed in accordance with the approved closure plan and addendums. The facility was closed and capped in accordance with Title 27, eliminating additional sources of groundwater contamination.

The Central Valley Water Board is proposing new WDRs that describe requirements for post-closure maintenance and monitoring of the closed facility, groundwater monitoring and reporting, and an updated groundwater corrective action program.

The Discharger conducted a hydrogeologic investigation and determined that the stratigraphy consists of three geologic units: (1) Alluvium; (2) 22K Sand; (3) and the Corcoran Clay Equivalent. Groundwater impacted by wastewater from the facility is present in the Alluvium and 22K Sand. Wastewater impacts in groundwater extend furthest downgradient in the Alluvium to monitoring well MW-4, a distance exceeding 4,000 feet from the facility. Groundwater monitoring is currently conducted in 10 wells.

The beneficial uses of groundwater beneath the area, as designated by Table II-2 in the Basin Plan, are municipal and domestic supply, agricultural supply, and industrial service supply. There are no municipal or domestic supply wells in the area. The nearest municipal supply wells are in unincorporated Spicer City about 8½ miles east-

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northeast of the former impoundments. The nearest agricultural supply well is about seven miles east-southeast of the former impoundments.

The Discharger submitted a groundwater corrective action plan, which considered corrective action alternatives, and proposed to monitor the natural attenuation of the constituents of concern (total dissolved solids, chloride, and boron), in groundwater monitoring wells. Monitored natural attenuation (MNA) was determined to be the appropriate corrective action. Closure of the former impoundments will result in greater protection for human health, the environment, and water quality.

Until 2010, groundwater monitoring data indicated the downgradient extent of the constituents of concern (COCs) exhibited consistent concentrations; however, recent data indicates an increase in the COCs in well MW-4. The WDRs require the Discharger to submit a work plan to further delineate the extent of the COCs in groundwater, and to submit an updated groundwater corrective action plan to determine whether MNA is still an appropriate corrective action. If MNA is no longer appropriate, the Discharger will need to consider additional corrective action measures.