ITEM:

SUBJECT: Berry Petroleum Company, Poso Creek/McVan Facility, Poso Creek Oil Field, Kern County

BOARD ACTION: *Consideration of Renewal of a NPDES Permit*

BACKGROUND: Berry Petroleum Company owns and operates a crude oil recovery facility in Poso Creek Oil Field. The crude oil recovery process generates produced water (wastewater) that is routed to onsite sumps and treated prior to discharge to an unnamed ephemeral stream, a water of the United States and a tributary to Poso Creek. The treatment system consists of mechanical separation, air floatation, and sedimentation. The tributary is an effluent dominated water body and would only contain a component of natural stream flow during storm events. The Discharger also utilizes injection wells for disposal of produced water. Due to improved market conditions since existing Order No. 5-01-133 was issued, the Discharger has employed steamflooding operations to increase oil production and thus requested an increase of discharge of produced water to the maximum design capacity for the facility of 1.68 mgd.

The tentative Waste Discharge Requirements (TWDRs) authorize a maximum daily discharge flow limitation of 1.68 mgd, which was previously authorized and found consistent with antidegradation policies in Order No. 95-153. The TWDRs authorize effluent limits for EC, chloride, and boron above those established by Order No. 5-01-133, but are consistent with limits previously authorized by Order No. 95-153 and are consistent with salinity limits authorized by the Basin Plan. The Discharger is required to complete a Salinity Evaluation and Minimization Plan to evaluate weather there are opportunities for salinity reductions. The TWDRs carry over the technology-based effluent limitation for oil and grease established by Order No. 5-01-133.

The TWDRs require the Discharger to conduct monthly monitoring of the effluent for total recoverable lead and zinc. After collecting at least one year of data, the Discharger is required to determine if reasonable potential exists for these constituents to exceed water quality objectives or criteria. The TWDRs also require the Discharger to conduct a study of molybdenum and determine appropriate water quality limitations for molybdenum.

With respect to the discharge of elevated temperature waste to receiving waters, the Discharger is required to conduct monthly sampling of temperature of the effluent and receiving water and the TWDRs appropriately apply a receiving water limitation for temperature. The Discharger is required to evaluate whether its discharge adversely affects, or has the potential to adversely affect, the WARM designated beneficial use of the ephemeral stream and the WARM and COLD designated beneficial uses of Poso Creek within the reaches of the water bodies

potentially affected by the discharge. Depending on the outcome of the study, the Discharger is required to either implement project modifications and propose effluent limitations to protect the uses, or collect the data necessary for the Regional Water Board to consider dedesignation of the use(s) if such use is determined unattainable for the affected, or potentially affected, reaches of the receiving waters.

ISSUES: California Sportfishing Protection Alliance (CSPA) and Environmental Law Foundation (ELF) believe the TWDRs allow the surface water and groundwater to be degraded in violation of antidegradation policies. For this discharge, a complete antidegradation analysis is unnecessary. The effluent salinity limits in the TWDRs implement the Basin Plan and any resulting degradation from these limits has been found consistent with Resolution 68-16 and 40 CFR 131.12. Also, as the need for groundwater monitoring reports is absent for a discharge consistent with the Basin Plan and any benefit obtained from such reports (relevant to the discharge) is unlikely, the cost of groundwater monitoring cannot be justified and so the TWDRs do not include a requirement to monitor the underlying groundwater.

CSPA and ELF also believe the TWDRs improperly relax the effluent limits for EC, chloride, and boron. Facility operations have substantially changed since Order No. 5-01-133 was issued and the approach to develop and implement effluent limitations for NPDES permits has substantially changed since Order No. 5-01-133 was issued. The proposed effluent limits are consistent with those authorized previously in Order No. 95-153 and are consistent with Basin Plan criteria for this type of discharge.

Mgmt. Review _____

Legal Review _____

21/22 June 2007

Central Valley Regional Water Quality Control Board
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