

ITEM: 5

SUBJECT: Oil Field Regulation and forthcoming General Orders

BOARD ACTION: Workshop for stakeholders and the general public about oil field issues and forthcoming General Orders.

TOPICS: California is a major oil producing state, and approximately 75% of the State's production is within the Central Valley. With the production of oil, comes water previously trapped in geologic formations. Produced water can be high in salts and contains other constituents that may pose a threat to groundwater, including petroleum hydrocarbons. The Central Valley Water Board's oil field program regulates oil field discharges to land.

One common method of produced water disposal is discharge to unlined ponds. Disposal is by evaporation and percolation. There are about 700 active produced water ponds within California's Central Valley, and approximately 400 of the ponds are currently operating without Waste Discharge Requirements (WDRs). Some of the ponds operating under WDRs have outdated WDRs that do not reflect recently promulgated laws and regulations.

As previously reported, Central Valley Board staff has inventoried, inspected, and issued information and enforcement orders to pond operators. In order to address ponds operating without WDRs, or under outdated WDRs, Central Valley Water Board staff is drafting three new General Orders. These General Orders will provide oil field operators that can be protective of water quality, with a means for complying with current laws and regulations. The three General Orders are categorized to address the various threats to groundwater, and will be a primary focus of the workshop. The work shop will focus on the framework and potential requirements of the General Orders.

Central Valley Water Board staff will also provide an update of oil field program activities related to underground injection control, oil well stimulation, as defined under Senate Bill 4 (SB4), and food safety.

Much produced water and other oil field wastes are injected through wells into underground porous geologic formations for disposal. These formations must be exempt from the federal Safe Drinking Water Act. Permits for these wells are issued by California's Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR). The DOGGR, in conjunction with the State Water Board and Central Valley Water Board have been reviewing aquifer exemption applications and individual project applications submitted by oil field operators. The emphasis on the Water Board's review is to ensure that injected materials will remain in the intended formations and will not adversely impact waters with existing or potential beneficial uses.

The State Water Resources Control Board, as required by SB4 (2013), has promulgated groundwater monitoring criteria to help protect groundwater from well stimulation activities. Central Valley Water Board staff, in conjunction with State Water Board staff, is reviewing the resulting groundwater monitoring plans to ensure compliance with the criteria and the protection of groundwater quality.

Several irrigation districts in the Central Valley use produced water for irrigation. This produced water is low in TDS, boron, and chloride, and considered good

quality. The produced water is treated and mixed with fresh water prior to irrigation. The public has expressed concerns because of the possible presence of oil field chemical constituents in reused produced water. In order to address these concerns, the Central Valley Water Board has established a panel of experts to help identify data gaps and possible risks to public health. The Food Safety-Oil Field Wastewater Reuse Expert Panel met on 12 January 2016. The Central Valley Water Board staff will continue to facilitate Panel activities.

Management Review: WDH

Legal Review: