

ITEM: 7

SUBJECT: Workshop On The Regulation Of Surface Water Discharges From Abandoned Mines

BOARD ACTION: No Board Action Proposed

BACKGROUND: Discharges from historic abandoned mines affect surface waters throughout the state. U.S. EPA considers these discharges point sources and they are commonly regulated under a National Pollutant Discharge Elimination System (NPDES) permit

The abatement of mine drainage in remote locations is difficult and commonly relies on the installation of concrete bulkhead seals, surface water drainage controls and/or operation of 'passive' treatment systems referred to as best management practices (BMPs).

The most problematic mines discharge metals in concentrations that can impact beneficial uses, predominantly discharges that are toxic to aquatic life and/or threaten human health. Due to their large physical size and complexity, remediation of these mines is very costly and can take many years. At large abandoned mine sites it may be impossible, with today's technology, to remediate adequately to protect aquatic life beneficial uses or meet the water quality objectives designated for adjacent receiving waters.

The State Implementation Policy (SIP) requires NPDES permits to contain numeric effluent limits for priority pollutants, including many metals. Numeric effluent limits for pollutant discharges associated with the control of drainage from abandoned, inactive mines in remote regions with limited seasonal access, no infrastructure (including electricity), and highly variable discharge rates and waste constituent concentrations are not feasible. This variability is due to the discharge being directly related to storm water and rainfall events. Numeric limits have long been found to be infeasible for storm water discharges, and the SIP explicitly excludes storm water from coverage. The flows from these inactive, historic mines are similar to storm water discharges in that the discharge from the mine portals are directly related to precipitation experienced at the site. The flow from the mine portals originates from the infiltration of precipitation into the subsurface where it is collected in the underground workings and discharged from the mine portal. Although the mine discharges are not storm water discharges, in this case, their similarity supports regulating them in a similar manner using BMPs.

Section 122.44(k)(3) of Title 40 of the Code of Federal Regulations (CFR), states best management practices (BMPs) may be required in NPDES permits in lieu of numeric effluent limits to control or abate the discharge of pollutants when numeric effluent limits are infeasible.

The staff report describes past and on-going remedial activities utilizing BMPs at abandoned mines in the Central Valley Region, the results of these activities, and recommends an approach to the future permitting of these mines. This recommended approach will result in a reduction in metals to surface waters which has been shown to be significant and effective, and will reduce the potential for ineffective, resource intensive enforcement actions associated with enforcement of unattainable numeric effluent limits.

RECOMMENDATION: Provide staff with direction on the regulation of discharges from abandoned mines.

Mgmt. Review _____

Legal Review _____

July 31/August 1 2008

Central Valley Regional Water Quality Control Board
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