

Agenda Item #6: CV-SALTS Executive Committee Meeting 8 November 2013

Item : Royal Mountain King Mine Basin Plan Amendment

Central Valley Water Board staff has prepared a draft Basin Plan Amendment (Draft BPA) to address regulatory issues associated with the closure of the Royal Mountain King Mine gold mine (RMKM Site), which is located in western Calaveras County. Land uses in the area surrounding the 2,100-acre RMKM Site include ranching, agriculture, rural residential development, and recreation.

Three large pits were excavated at the RMKM Site between 1989 and 1994, and two of these pits filled with water after mining operations ceased. The third pit was backfilled and became one of three overburden disposal sites (ODS) where mining waste rock and overburden are emplaced. In total, the three ODSs contain around 50 million tons of material.

Prior to 2001, the Central Valley Water Board did not require the ODSs to have containment features such as impermeable covers or liners. However, in March 2001, the Central Valley Water Board required that a cover be installed as part of the closure of the ODSs because groundwater data indicated that the ODSs were contributing TDS, sulfate, and other inorganic salts to groundwater. The Central Valley Water Board's action was then petitioned to the State Water Board. The State Water Board found that a cover should not be required for the ODSs, because "[a]lthough discharges from RMKM facilities have negatively affected groundwater at some locations, groundwater quality was highly variable and often poor under natural conditions." The State Water Board then directed the Central Valley Water Board to find "alternate means of complying with applicable legal requirements for mine closure and cleanup." Among the alternatives suggested by the State Water Board was the de-designation of certain beneficial uses of groundwater.

With financial support from the discharger (Meridian Beartrack Company), Central Valley Water Board staff developed the Draft BPA. The Draft BPA proposes to remove the MUN beneficial use designation in areas of the RMKM Site where groundwater quality does not support, or is not likely to support, this use, primarily due to naturally high concentrations of TDS and other constituents found in groundwater. This area is where levels of total dissolved solids exceed 3,000 mg/L, underneath the waste management units that have not already been closed, and immediately down-gradient of those units. After considering the adoption of a site-specific objective for the AGR use, the Draft BPA instead proposes to de-designate the AGR use in an area that is co-extensive with the area where MUN will be de-designated, as these areas are not likely to support AGR uses as well. The Draft BPA also proposes to establish a variance for the industrial service supply (IND) and industrial process supply (PRO) beneficial uses for certain constituents, which reflects high concentrations of these constituents that are found in groundwater. Since the MUN de-designation goes beyond the Sources of Drinking Water Policy Exception Criteria, the State Water Board proposes a site-specific amendment to the Sources of Drinking Water Policy.

The Central Valley Water Board will also require Meridian to continue to implement its current groundwater management strategy in order to ensure that any existing water quality impacts do not spread. The groundwater management strategy consists of:

- Pumping surfacing groundwater from seepage collection sumps at the toes of the waste management units to the downgradient pit lake.
- Maintaining the lowest practicable water surface elevation in the most downgradient pit lake, with the only surface discharge point being governed by NPDES permit (which requires Meridian to essentially operate this lake as a groundwater sink).
- Monitoring water quality in the groundwater immediately surrounding the area where beneficial uses will be de-designated in order to ensure that statistically significant degradation will not occur outside of these areas.

