

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER ___
DAVID KUBICH
IOWA HILL GRAVEL OPERATION
PLACER COUNTY

David Kubich (“Discharger”) owns and operates Iowa Hill Gravel Operation (“Facility”), which is located within the Indian Creek canyon and mines aggregate gravel deposits in the canyon base for maintenance of onsite timber harvest service roads. The Facility consists of a sorting plant and seven unlined ponds. Six ponds are used for settling and the remaining pond is used to store source water.

Excavated gravels are transported by a loader or truck to the sorting plant, which consists of a trommel and sluice. Process wastewater is generated from washing and sorting the excavated gravel. The Discharger states that approximately 100 cubic yards of material is excavated each week during operation. Of the excavated material, approximately 75 percent is collected gravel and 25 percent is tailings (sand and fines). The Facility operates year round during dry periods.

Source water for washing and sorting is obtained from groundwater that seeps from the canyon side. Typically, the seeping groundwater is directed to a storm water diversion ditch and pumped to the settling ponds as needed. The Discharger has not characterized the source water.

Wash water containing sand and fines from the gravel sorting and washing operation are settled in the six settling ponds arranged in series. The Ponds are constructed below grade and located downstream of the sorting plant. Water from the settling ponds is occasionally used on the timber harvest service roads for dust control. The ponds are periodically dredged to remove accumulated sand and fines, which are dewatered in a shallow pit called the Sediment Trap. After dewatering, the tailings are transported by truck and used to backfill the active excavation area.

The ponds will be deepened to accommodate the 100-year return period total annual precipitation event. Because the ponds are entirely below grade, one foot of freeboard is sufficient to prevent spills.

The site has been graded to prevent storm water from entering the gravel mining operational area. A storm water diversion ditch has been engineered to divert inflowing storm water and an ephemeral drainage course around the Facility and directly to Indian Creek.

Groundwater Conditions

The Discharger has not completed a site-specific groundwater evaluation to determine background groundwater quality and potential impacts from the discharge. The Discharger states that groundwater is expected to be encountered in fractured bedrock and the depth to shallow groundwater is expected to be within ten feet of the ground surface during the rainy season.

Basin Plan, Beneficial Uses, and Regulatory Considerations

Local drainage is to Indian Creek, which flows into the North Fork American River. The beneficial uses of the North Fork American River, as stated in the Basin Plan, are municipal and domestic supply; agricultural supply; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; wildlife habitat; and spawning, reproduction, and/or early development.

The beneficial uses of underlying groundwater as set forth in the Basin Plan are municipal and domestic supply, agricultural supply, industrial service supply and industrial process supply.

Antidegradation Analysis

The materials used by the Facility are natural earth materials subjected to a washing and separation process using recycled wash water and onsite groundwater. The Discharger does not add any chemicals to the process operation. Because the Discharger recycles wash water, which is discharged to the unlined settling ponds, there is a potential for evapoconcentration of naturally occurring dissolved minerals and salts, and percolation from the settling ponds may cause limited degradation of groundwater quality.

Based on data included in the RWD, the constituents of concern that have the potential to degrade groundwater are aluminum and iron, which were found in high concentrations in the deionized water extract from sediment of Pond 1. Because the discharger does not add any chemicals to the water, these metals are naturally occurring. As indicated by the water quality data from Pond 6, the concentrations of aluminum and iron in solution are significantly less than that solubilized from the sediment of Pond 1. This suggests that any solubilized aluminum or iron during the washing and sorting operation are readably reabsorbed to the sediment or diluted with addition of fresh water from the seeps and precipitation that falls onto the ponds.

The Discharger evaluated whether infiltration from Pond 6 would impact Indian Creek water quality. The Discharger made a conservative analysis by assuming wastewater quality did not change from what was sampled in Pond 6 and utilized dry season flow rates for Indian Creek. The Discharger did not find any potential for Indian Creek water quality degradation.

Based on site topography and the fact that groundwater seeps from the canyon side, it is reasonable to conclude that Indian Creek primarily contains groundwater during the summer months. Therefore, the upstream surface water samples from Indian Creek are representative of groundwater at the site and the data from wash water in Pond 6 do not show a significant threat to groundwater quality.

This Order establishes effluent and groundwater limitations for the Facility that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan. For aluminum and

iron, the nature of the waste and site-specific conditions indicate that the discharge may cause some limited degradation, but will not cause exceedance of a water quality objective. Naturally occurring salts and minerals may cause very limited degradation due to evapoconcentration. Therefore, groundwater monitoring is not required at this time.

The Board finds that there are no economically feasible treatment or control measures, and none are typically employed by similarly-situated dischargers. This Order establishes operational requirements, limitations, and prohibitions that will ensure that the discharge will not unreasonably affect present and anticipated beneficial uses of groundwater or result in groundwater quality less than that prescribed in state and regional policies and requires that the Discharger conduct monitoring to verify that dissolved aluminum and iron from wash water fines will not cause exceedance of a water quality objective. The limited degradation authorized by this Order is consistent with the maximum benefit of the people of the state, as explained in Finding 30. Therefore, the degradation authorized by this Order is consistent with the Antidegradation Policy.

Discharge Prohibitions, Specifications, and Provisions

The operating freeboard in any pond shall never be less than one foot. Wastewater contained in any unlined pond shall not have a pH less than 6.0 or greater than 8.4.

The discharge shall not cause underlying groundwater to:

1. Contain waste constituents in concentrations statistically greater than existing background water quality, except for manganese, as specified below.
2. Exceed a total coliform organism level of 2.2 MPN/100mL.
3. Exhibit a pH of less than 6.5 or greater than 8.4 pH units.
4. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

The Provisions require the submittal of reports to verify that staff gauges have been installed and that storage capacity improvements have been completed.