

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL VALLEY REGION

CONDITIONAL WAIVER R5-2013-0060

Dr. RICHARD L. MILLER

CLASS C MINING WASTE REMEDIATION REPOSITORY

COLUSA COUNTY

Water Code section 13269 authorizes the Central Valley Regional Water Control Board (Central Valley Water Board or Board) to waive the requirement to submit a report of waste discharge and the issuance of waste discharge requirements when the waiver is consistent with the applicable water quality control plan and the waiver is in the public interest. This Conditional Waiver is issued to Dr. Richard L. Miller ("Dr. Miller") to facilitate the cleanup of a group of inactive mines.

The Central Valley Water Boards finds:

Background

1. The Central, Cherry Hill, Empire, Manzanita, Wide Awake and West End Mines (the "Inactive Mines") are inactive mercury and/or gold mines. Mining waste from the Inactive Mines erodes into Sulphur Creek, which is tributary to Cache Creek.
2. The Inactive Mines are located in the Wilbur Springs hydrothermal area of the Sulphur Creek Mining District of Colusa County, and are about 20 miles west of Williams, California. The property on which the Inactive Mines are located is comprised of Colusa County Assessor's Parcel Numbers 018-200-002-000, 018-200-013-000, 018-200-014-000, 018-200-015-000, 018-200-016-000, 018-200-017-000, 018-200-018-000, 018-200-004-000, 018-200-005-000, and 018-200-007-000, in Sections 28 and 29, Township 14 North, Range 5 West, Mount Diablo Base and Meridian (MDBM), as shown in Attachment A, a part of this Conditional Waiver. Mining waste has been discharged at the Inactive Mines since mining activities began in the late 1800s. Mining waste has been discharged where it has eroded into Sulphur Creek, resulting in elevated concentrations of metals within the creek.
3. Dr. Miller owns the land where the Central, Cherry Hill, Empire, Manzanita, and West End Mines are located. In its current state, the mining waste at the Inactive Mines is resulting in discharges of waste to waters of the state.
4. Dr. Miller does not own the land where the Wide Awake Mine is located, but Dr. Miller does own contiguous parcels. Mining waste from the inactive Wide Awake Mine is currently eroding onto Dr. Miller's property.
5. Dr. Miller has never actively mined any of the parcels.
6. The Central Valley Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition (the "Basin Plan") states: "By 6 February

2009, the Regional Water Board shall adopt cleanup and abatement orders or take other appropriate actions to control discharges from the inactive mines (Table IV-6.4) in the Cache Creek watershed.”

7. On 27 May 2010, Technical and Monitoring Report Order R5-2010-0048 was issued by the Board. Order R5-2010-0048 required Homestake Mining Company of California (“Homestake”) and other named parties to perform certain investigation, characterization, and monitoring activities to ensure protection of the waters of the state and to comply with the Basin Plan requirement that required responsible parties to develop plans to reduce existing loads of mercury from mining or other anthropogenic activities by 95% in the Cache Creek watershed.
8. To comply with Order R5-2010-0048, Homestake submitted a final report in September 2010 entitled *Mining-Related Materials Characterization and Remediation Work Plan* (the “Work Plan”), which is included in this Conditional Waiver as Attachment “A” and is hereby incorporated by reference. Homestake’s proposed remedial actions are designed to remove a significant source of eroding mercury-enriched soil that was created during historic mining operations:
 - a. Reduce loads of total mercury from inactive mines;
 - b. Where feasible, implement projects to reduce total mercury inputs from mercury-containing sediment deposits in creek channels and creek banks downstream from historic mine discharges; and
 - c. Reduce erosion of soils with enriched total mercury concentrations.
9. On 8 April 2011, the Board adopted Resolution R5-2011-0020, which authorized the Board’s Executive Officer to enter into an agreement with Homestake that would release Homestake from liability for the Inactive Mines, provided that Homestake implements the Work Plan and agrees to contribute an additional \$50,000 for further investigative work. This Conditional Waiver is designed to allow Homestake to implement the Work Plan by permitting a mine waste repository to receive the consolidated mine waste material.

Waste Characterization

10. California Code of Regulations, title 27, section 22480 contains the criteria that the Board must follow for mining waste classification, and specifies the following:
 - (b) Waste Group Classification – Mining wastes shall be classified as Group A, Group B, or Group C mining wastes based on an assessment of the potential risk of water quality degradation posed by each waste. In setting requirements for each mining waste discharge under this article, the RWQCB shall assign the waste to Group A, Group B, or Group C according to the following criteria:
 - (1) Group A – mining wastes of Group A are wastes that must be managed as hazardous waste pursuant to Chapter 11 of Division 4.5, of Title 22 of this code, provided the RWQCB finds that such mining wastes pose a significant threat to water quality;

(2) Group B – mining waste of Group B are either:

(A) mining wastes that consist of or contain hazardous wastes, that qualify for a variance under Chapter 11 of Division 4.5, of Title 22 of this code, provided that the RWQCB finds that such mining wastes pose a low risk to water quality; or

(B) mining wastes that consist of or contain nonhazardous soluble pollutants of concentrations which exceed water quality objectives for, or could cause, degradation of waters of the state; or

(3) Group C – mining wastes from Group C are wastes from which any discharge would be in compliance with the applicable water quality control plan, including water quality objectives other than turbidity.

(c) Classification Considerations -In reaching decisions regarding classification of a mining waste as a Group B or Group C waste, the RWQCB can consider the following factors:

(1) whether the waste contains hazardous constituents only at low concentrations;

(2) whether the waste has no or low acid-generating potential; and

(3) whether, because of its intrinsic properties, the waste is readily containable by less stringent measures.

11. The Bevill Exclusion is a provision of federal law that excludes “solid waste [generated] from the extraction, beneficiation, and processing of ores and minerals” from regulation as hazardous waste under Subtitle C of the federal Resources Conservation and Recovery Act. (40 CFR 261.4(b)(7).)
12. Mining waste is nonetheless considered a “Non-RCRA Hazardous Waste” under state law if it exhibits hazardous waste characteristics, including the characteristic of toxicity under Article 3 of Chapter 11 of Title 22 of the California Code of Regulations. (Cal. Code Regs., tit 22, § 66261.101(b)(2).)
13. In 2000-2001 the CALFED Bay-Delta Program (CALFED) commissioned a study of the mine waste characteristics as part of a larger multi-investigator study of mercury and methylmercury loading in the San Francisco Bay and the Sacramento and San Joaquin Delta (the “CALFED Study”).
14. The CALFED Study concluded that mine wastes within the Cache Creek mining district “should not be classified as Group A, even if they were otherwise classified as hazardous waste under state criteria. ... The mining wastes from the District are appropriately classified as Group B or Group C wastes. Those wastes that yield WET extract concentrations of mercury above the STLC are considered Group B mine wastes (WET extract concentrations above the STLC demonstrate the wastes consist of or contain hazardous waste). Those wastes that yield WET extract concentrations of mercury below the STLC are considered Group C mine wastes ... the threat of water quality degradation by wastes properly removed from proximity to surface water is believed to be minimal.” (CALFED Study, Final 5C2 Report, pages 5-16 – 5-17.)

15. In March 2010, Environmental Resources Management (ERM), a consultant acting on behalf of Homestake, conducted a field program to characterize mining-related material, including waste rock, tailings, ore, mercury-enriched soils, and mining equipment present at the mine sites. The results of ERM's investigation showed that the average mercury solubility value for each mine material pile was well below the STLC limit concentration of 200 ug/L, and that most of these discrete mine material piles were actually non-detect for dissolved mercury. This indicates that the mercury contained in the material is stable and not prone to dissolution or leaching. ERM's recommendation was to focus on removing the connection between the mine-related material and Sulphur Creek.
16. If the waste material is stabilized so that it will not erode into the stream (which would create sedimentation and turbidity issues), then the only potential constituent of concern to the Central Valley Water Board for the mining waste is mercury. Though the mining waste material exceeds the TTLC values in Title 22 of the California Code of Regulations for mercury, the mercury is not in a leachable form, and therefore it poses very low risk to water quality and is readily containable by less stringent measures than those that would otherwise be applicable under Title 27 of the California Code of Regulations. Therefore, it is appropriate to consider this mining waste to be a Group C mining waste.
17. Mining Units receiving Group C mining wastes, such as the repository authorized by this Conditional Waiver, do not have limitations based on their geologic setting, and are not required to have liners or leachate collection and removal systems.
18. On 30 June 2011 Pamela Creedon, Executive Officer Central Valley Water Board, signed Attachment A to Resolution R5-2011-0020, which is the Mutual Release and Covenant Not to Sue for the Wide Awake Mercury Mine and the Central, Cherry Hill, Empire, Manzanita and West End Mine Properties.

Legal Provisions

19. Water Code section 13260 states, in relevant part:
 - (a) Each of the following persons shall file with the appropriate regional board a report of the discharge containing the information that may be required by the regional board:
 - (1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.
...
 - (b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.
20. Water Code section 13263 states, in relevant part:
 - (a) The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge, except discharges into a community sewer system, with relation to the

conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.

21. Pursuant to Water Code section 13269, the provisions of Water Code subsection 13260(a) and Water Code subdivision 13263(a) may be waived by the Central Valley Water Board as to a specific discharge or type of discharge if the Board determines that the waiver is consistent with any applicable state or regional water quality control plan and is in the public interest. The waiver may not exceed five years in duration, but may be renewed. The waiver shall be conditional and may be terminated at any time by the Board.
22. The Central Valley Water Board may waive the requirements otherwise imposed by Water Code section 13260 and Water Code section 13263, even for mining wastes regulated under Title 27 of the California Code of Regulations. (Cal. Code Regs. tit. 27, § 22470(a).)
23. This Conditional Waiver is in the public interest because it assists in the remediation of mercury mines that have been contributing to water quality issues for over a century. The Board has chosen a Conditional Waiver to regulate this discharge because Dr. Miller has never mined the mine sites.
24. This Conditional Waiver is being issued to facilitate the remediation of a series of mining waste piles that are eroding into waterways and creating a condition of pollution. Colusa County has concluded that the grading permit that will be issued to facilitate these actions qualifies for a categorical exemption under the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) ("CEQA"). Likewise, the Board concludes that this Conditional Waiver, which will approve the consolidation of mining waste material into a repository that does not threaten water quality, is exempt from the provisions of CEQA in accordance with California Code of Regulations, title 14, section 15304, which exempts minor alterations to land, California Code of Regulations, title 14, section 15330, which exempt minor actions to prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release of hazardous waste or hazardous substances, and/or California Code of Regulations, title 14, section 15308, which exempts actions by regulatory agencies for the protection of the environment.
25. This Conditional Waiver does not regulate the excavation of mine waste from areas in the immediate area of water bodies subject to the Clean Water Act. Those activities will be regulated pursuant to a 404 Permit issued by the Army Corps of Engineers and a 401 Certification issued by the Central Valley Water Board.
26. Dr. Miller and interested agencies and persons have been notified of the intent to waive waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

27. All comments pertaining to the discharge were heard and considered in a public meeting.

THEREFORE, pursuant to Water Code section 13269, the Central Valley Water Board waives waste discharge requirements for the operation and maintenance of the mine waste unit and storm water diversion structures on the present Dr. Miller's property, provided that Dr. Miller meets the following conditions are met:

1. Dr. Miller shall allow Homestake Mining Company of California to fully implement the Work Plan described in Finding 8.
2. Dr. Miller shall implement reasonable measures to maintain all erosional structures and mining units¹ on the parcels defined in Finding 2.
3. Dr. Miller shall implement reasonable measures to prevent any discharge of mining waste from any mining unit.
4. Dr. Miller shall implement reasonable measures to maintain all mining unit covers in a manner that will prevent the discharge of mining waste from the mining unit. The following shall be included as minimum requirements:
 - a. Reasonable measures to maintain the soil cover and prevent erosional channels and other erosional features from being established.
 - b. If erosional channels are established, reasonable measures to repair them as soon as possible.
 - c. Reasonable measures to maintain the vegetative cover to the standards described in the Work Plan.
 - d. Reasonable measures to maintain all stormwater diversion structures to prevent water from draining across the mine waste units.
5. Dr. Miller shall take reasonable measures to prevent activities that degrade the vegetative covers of the mining units such as cattle grazing and/or recreational uses that might impair the vegetative cover of the mining units.
6. Mining units previously covered with soil shall be inspected annually. If necessary, supplemental erosion controls shall be implemented in previously covered areas to prevent exposing mine waste. Supplemental erosion controls may include:
 - a. Planting vegetation in areas where natural revegetation has not been successful;
 - b. Installation of additional berms, water bars and/or drainage swales; and
 - c. Installation of additional rip-rap or erosion matting.

¹ For the purposes of these requirements, the term "mining unit" does not include features related to the Inactive Mines.

7. An **Annual Facility Inspection** shall be completed prior to the anticipated rainy season, but no later than **30 September**. The inspection shall assess repair and maintenance needed for drainage control systems, cover systems, and groundwater monitoring wells (if installed); and shall assess preparedness for winter conditions, including, but not limited to, erosion and sedimentation control. Dr. Miller shall take photos of any problems areas before and after repairs. Any necessary construction, maintenance, or repairs shall be completed by **31 October**. An **Annual Facility Inspection Report** shall be submitted by **15 November** of each year, in which Dr. Miller shall describe the results of the inspection, any repair measures implemented, and the preparations that have been made for winter. The Annual Facility Inspection Report shall include photographs of any problem areas and the repairs.
8. Stormwater diversion channels shall be inspected on **September and February each year** and after **Major Storm Events** (greater than 1 inch of rainfall in 24-hours). Dr. Miller shall inspect all precipitation, diversion, and drainage facilities and all landfill side slopes for damage **within 7 days** following major storm events, unless access to such areas cannot be reasonably obtained. Inspections shall note evidence of damage, excessive erosion, settlement, and obstruction by debris. Dr. Miller shall take photos of any problems areas before and after repairs. Necessary repairs shall be completed **within 30 days** of the inspection. Dr. Miller **immediately** shall notify Central Valley Water Board staff of any damage or significant erosion upon discovery and report subsequent repairs within **14 days** of completion of the repairs, including photographs of the problem and the repairs.
9. This Conditional Waiver shall expire five years from the date of issuance, or when it is revised by the Board, whichever occurs first.
10. This action waiving waste discharge requirements is conditional and may be terminated at any time.
11. In the event of any change in control or ownership of the mining unit regulated by this conditional waiver, Dr. Miller must notify the succeeding owner or operator of the existence of this conditional waiver by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board's Rancho Cordova Office. The succeeding owner or operator must then submit a written request to the Board's Executive Officer to request a transfer of the waiver. The request must contain the requesting entity's full legal name, the state of incorporation (if a corporation), the name, address, and telephone number of persons responsible for contact with the Central Valley Water Board, and a statement that the new owner or operator assumes full responsibility for compliance with this conditional waiver. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. The Executive Officer will submit transfer requests to the Central Valley Water Board so that the Board may consider transferring the ownership of this waiver at one of its regularly scheduled meetings.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive

the petition by 5:00 p.m., 30 days after the date of this Action, except that if the thirtieth day following the date of this Action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a true, full, and correct copy of a Conditional Waiver adopted by the California Regional Water Quality Control Board, Central Valley Region, on 31 May 2013.

Original signed by

PAMELA C. CREEDON, Executive Officer