

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2007-0724

FOR

DONALD A. MONDANI, DOUGLAS W. MONDANI,  
AND GERALDINE M. CASSINELLI

NEWTON COPPER MINE  
AMADOR COUNTY

This Order is issued to Donald A. Mondani, Douglas A. Mandani, and Geraldine M. Cassinelli (hereafter jointly referred to as Discharger), based on provisions of California Water Code Sections 13304 and 13267 that authorizes the Regional Water Quality Control Board, Central Valley Region (hereafter Regional Water Board) to issue a Cleanup and Abatement Order (Order).

The Executive Officer of the Regional Water Board finds, with respect to the Discharger's acts, or failure to act, the following:

1. The Newton Copper Mine is an abandoned copper mine in Section 28, T6N, R10E, MDB&M. The mine is adjacent to Highway 88 approximately six miles west of Jackson and four miles east of Lone.
2. The Newton Copper Mine was an underground, massive sulfide, copper mine. The mine site consists of three to five acres of mine waste rock and processed (heap roasted) sulphitic copper tailings. The processed ore and waste rock have a high sulfide content and produce acid mine drainage.
3. The mine is on property identified by Amador County Assessor's Parcel Number (APN) 11-160-009. The property consists of 63.96 acres and includes the Newton Copper Mine claim listed as Lot 39. The site is co-owned by Donald Mondani, Douglas Mondani and Geraldine Cassinelli, heirs to the Nellie M. Mondani estate, the previous owner of the property.
4. The mine property is traversed by and has surface drainage to an unnamed tributary to Copper Creek, hereafter referred to as East Fork Copper Creek. Copper Creek is tributary to Sutter Creek, which is tributary to Dry Creek, which is tributary to the Mokelumne River.
5. The mine was operated by Newton Mining Company between 1863 and 1908, and by the Winston Copper Company and Pacific Mining Company between 1943 to 1946. The mine produced approximately five million pounds of copper and minor amounts of gold and silver from 78,000 tons of ore. Much of the ore was processed on the mine site.

6. In June 1965, the Regional Water Board adopted Resolution No. 65-63 regulating discharges from the Newton Copper Mine for a proposed in-situ leaching operation by the Utah Construction and Mining Company. In May 1967, control of the mine was transferred to David L. Hermiston and the Regional Water Board adopted Resolution No. 67-167 naming David L. Hermiston as responsible for potential future mine operations. However, the proposed leaching operations never occurred.
7. On 28 February 1992, the Regional Water Board rescinded Resolution No. 67-167 and found that the site continues to pollute Copper Creek with metals leached from the tailings and required the Discharger to propose corrective action measures. From April 1994 to May 1998 the Discharger worked with staff to develop cleanup and abatement measures for the mine. In March 1997 CalSPA filed a complaint against the Discharger for failure to obtain a NPDES permit. The complaint was settled in September 1997 with the Discharger agreeing to submit an NPDES application by 27 September 1997 or obtain a permit for the discharge of wastewater by 29 May 1998.
8. On 23 September 1997, the Discharger submitted an application for an NPDES permit. The application was submitted without a fee payment and the cover letter requested a delay until February 1998. On 26 September 1997, the Discharger's attorney requested that information contained in the NPDES application be used instead to prepare a Cleanup and Abatement Order. In October 1997, staff determined that the NPDES application was incomplete.
9. On 20 May 1998, the Regional Water Board's Executive Officer issued Cleanup and Abatement Order (CAO) No. 98-718 requiring that the owners of the Newton Copper Mine to cleanup and abate the adverse impacts that the Mine, associated tailings, and waste rock dumps have on the waters of the state. The Order requires among other things: characterization of the mine waste, a feasibility study with proposed methods to cleanup and abate the waste, a remedial plan with the selected remedy(s), and final completion of the remediation.
10. On 1 February 1999, the Discharger submitted a Waste Characterization Report in partial compliance with CAO No. 98-718. The report classified the mine tailings as Group B mining waste, as described in Title 27 California Code of Regulations, Division 2 (Title 27), which establishes specific requirements for the disposal and closure of Group B mining waste. Subsequent to classification of the waste, staff and the Discharger were unable to agree on a suitable remediation plan for the mine that would protect water quality and comply with Title 27.
11. On 1 April 1999, the Discharger submitted a petition appealing the CAO to the State Water Resources Control Board. On 28 July 1999, the Regional Water

- Board adopted a resolution approving a cleanup plan for the Newton Copper Mine. The resolution requires the Discharger to: “comply with Cleanup and Abatement Order No. 98-718 and Regional Water Board staff’s interpretation of the Title 27 requirements relative to cleanup of the Newton Copper Mine”. On 5 November 1999, the State Water Board determined the petition was complete and agreed to consider the petition.
12. On 5 November 1999, the Discharger submitted a memo from Dr. M. Misra, a professor at the University of Nevada, proposing passivation technology as a possible remedial solution for the Newton Copper Mine tailings. On 20 June 2000 staff agreed to suspend the CAO during implementation of a passivation pilot project, to be completed the summer of 2001. On 18 July 2000, at the Discharger’s request the State Water Board placed the petition on hold.
  13. On 15 February 2002, staff requested a current status report on the passivation project by 8 March 2002. On 16 July 2002, the Discharger submitted a progress report on the passivation research and requested a two-year extension to complete a passivation pilot program at the Newton Mine.
  14. On 24 July 2002, the State Water Resources Control Board dismissed the Discharger’s petition of Cleanup and Abatement Order No. 98-718.
  15. On 30 August 2002, the Executive Officer issued a Water Code Section 13267 request for technical reports. This Order required by 30 October 2002, a work plan to divert storm runoff from the tailings piles, removal of selected waste from the active stream bed, grading of waste rock piles to prevent ponding and quarterly water quality monitoring, and by 1 March 2004 a report describing the completed actions. These actions were required as interim measures to justify additional time to develop a final closure strategy.
  16. On 31 October 2002, the Discharger submitted the required workplan, which described a plan to capture drainage from the mine airshaft and install a French Drain to capture waste rock drainage. The creek was diverted away from the airshaft and the western part of the waste rock area. On 1 December 2003 the Discharger submitted a construction report of the interim measures. The report notes that monitoring will take place during the winter and spring. However, no sampling results were submitted to verify if the actions improved the water quality in the East Fork Copper Creek.
  17. On 17 January 2007, staff sampled East Fork Copper Creek upstream and downstream from the mine, as well as a stream tributary to Copper Creek below the mine but unaffected by the Newton Copper Mine. The results indicate that Copper Creek downstream of the mine is still impacted with elevated

concentrations of salts and metals, and low pH. The low pH and the concentrations of sulfate, copper iron and zinc exceed Water Quality Goals.

#### Summary of Results

Constituent	Water Quality Goals (ppb)	Upstream (ppb)	Unaffected Tributary (ppb)	Downstream (ppb)
pH	6.5 – 8.5	7.53	7.58	4.1
TDS	500,000	160,000	220,000	470,000
Sulfate	250,000	19,000	9,600	330,000
Copper	170	<10	<10	2,600
Iron	300	<100	<100	3,400
Zinc	2,000	<20	<20	370

\* As found in: Regional Water Control Board, Central Valley Region: "A Compilation of Water Quality Goals".

18. On 23 July 2007, staff inspected the Newton Copper Mine and the 2002 interim measures. In addition, staff tested the acidity of waters in the mine area with a portable pH meter. Six water bodies were sampled. Two water bodies had neutral pH: East Fork Copper Creek above the mine and water discharging from the French Drain and four water bodies were acidic: water in East Fork Copper Creek above the pond, water in the pond, water draining from the pond and water in East Fork Copper Creek below the mine.
19. The passivation pilot project was developed with outside funding and apparently did not progress beyond the initial laboratory studies. A plan and proposal for field scale application of the experimental technology at the Newton Copper Mine was never submitted to Regional Water Board staff and the Discharger currently believes that it may be many years before passivation technology will be developed for large-scale implementation.
20. Mine waste at Newton Copper Mine was previously classified as Group B mine waste. The waste continues to pollute Copper Creek. The compliance dates in the existing CAO No. 98-718 to mitigate the mine site are long past due.
21. This CAO rescinds the CAO No. 98-718 except for the purposes of enforcement, and establishes new dates to cleanup and abate the pollution in compliance with the requirements in Title 27.

### REGULATORY CONSIDERATIONS

22. As described in this Order, the Discharger has discharged waste, which has caused or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution or nuisance.
23. The Water Quality Control Plan for the California Regional Water Quality Control Board, Central Valley Region, 4<sup>th</sup> Edition (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.
24. Copper Creek is an intermittent stream that is a tributary to Sutter Creek, which is tributary to Dry Creek, which is tributary to the Mokelumne River. The designated beneficial uses for the upper Mokelumne River, as specified in the Basin Plan, are municipal and domestic supply, industrial power supply, water contact and non-contact water recreation, warm and cold fresh water habitat, warm water migration, warm and cold water spawning, and wildlife habitat.
25. The designated beneficial uses of underlying groundwater, as stated in the Basin Plan, are domestic and municipal supply, agricultural supply, and industrial supply.
26. Section 13304(a) of the California Water Code provides that: *“Any person who has discharged or discharges waste into waters of this state in violation of any waste discharge requirements or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.”*

27. Section 13304(c)(1) of the California Water Code provides that: *“If the waste is cleaned up or the effects of the waste are abated, or, in the case of threatened pollution or nuisance, other necessary remedial action is taken by any governmental agency, the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of waste within the meaning of subdivision (a), are liable to that governmental agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial action. The amount of the costs is recoverable in a civil action by, and paid to, the governmental agency and the state board to the extent of the latter’s contribution to the cleanup costs from the State Water Pollution Cleanup and Abatement Account or other available funds.”*
  
28. Section 13267(b)(1) of the California Water Code provides that: *“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”*
  
29. The technical reports required by this Order are necessary to assure compliance with this Order, and to protect the waters of the state. Existing data and information about the site indicates that waste has been discharged or may continue to be discharged at the property, which is currently owned by the Dischargers named in this Order.
  
30. The State Water Resources Control Board (hereafter State Water Board) has adopted Resolution No. 92-49, the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. This Policy sets forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Water Board Resolution No. 68-16, the *Statement of Policy With Respect to Maintaining High Quality of Waters in California*. Resolution No. 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution No. 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to

an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, CCR Section 2550.4. Any alternative cleanup level to background must (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board.

31. Chapter IV of the Basin Plan contains the *Policy for Investigation and Cleanup of Contaminated Sites*, which describes the Regional Water Board's policy for managing contaminated sites. This policy is based on CWC Sections 13000 and 13304, the Title 27, Division 2, Subdivision 1 regulations, and State Water Board Resolution Nos. 68-16 and 92-49. The policy addresses site investigation, source removal or containment, information required to be submitted for consideration in establishing cleanup levels, and the bases for establishment of soil and groundwater cleanup levels.
32. The State Water Board's *Water Quality Enforcement Policy* states in part: "*At a minimum, cleanup levels must be sufficiently stringent to fully support beneficial uses, unless the Regional Board allows a containment zone. In the interim, and if restoration of background water quality cannot be achieved, the Order should require the discharger(s) to abate the effects of the discharge. Abatement activities may include the provision of alternate water supplies.*" (Enforcement Policy, p. 19)
33. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), pursuant to Title 14 CCR Section 15321(a)(2). The implementation of this Order is also an action to assure the restoration of the environment and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), in accordance with Title 14 CCR, Sections 15308 and 15330.
34. Any person adversely affected by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Sections 2050-2068 of CCR Title 23. The State Water Board must receive the petition within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions may be found on the Internet at <http://www.waterboards.ca.gov/centralvalley> or will be provided upon request.

**IT IS HEREBY ORDERED** that CAO No. 98-718 is rescinded (except for purposes of future enforcement) and pursuant to California Water Code Sections 13304 and 13267, Donald Mondani, Douglas Mondani and Geraldine Cassinelli, their agents, successors,

and assigns, shall investigate the discharges of waste, clean up the waste, and abate the effects of the waste, forthwith, from the Newton Copper Mine site and East Fork Copper Creek where it passes through mine waste rock and tailings. The work shall be completed in conformance with State Board Resolution No. 92-49 and with the Regional Water Board's Basin Plan (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV). "Forthwith" means as soon as is reasonably possible. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.

Any person signing a document submitted under this Order shall make the following certification:

*"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."*

1. Pursuant to Section 13304(c)(1), the Discharger shall reimburse the Regional Water Board for reasonable costs associated with oversight of the cleanup of the sites subject to this Order. Failure to do so upon receipt of a billing statement from the State Water Board shall be considered a violation of this Order.
2. The Discharger shall submit monitoring reports beginning with October 2007, in compliance with Monitoring and Reporting Program No. R5-2007-0724.
3. By **31 December 2007** the Discharger shall submit a characterization work plan with a task schedule to obtain the necessary information to complete the engineering feasibility study required in Item 4. The characterization work plan must include the following at a minimum:
  - a. A waste rock characterization plan to determine the extent of the waste rock, evaluate the character of the waste and classify the waste per Title 27 Section 22480;
  - b. Sampling of the groundwater in the mineshaft in several locations to determine the character and the water quality impacts in the mine; and
  - c. A plan to identify, quantify and sample all uncaptured spring flows from the mine site to Copper Creek.
4. By **30 June 2008** the Discharger shall submit an Engineering Feasibility Study consistent with Title 27 Section 20420(k)(6) that evaluates methods for cleanup and abatement of the mine waste rock and tailings remaining on the Newton



Copper Mine site. Evaluation of cleanup methods should be based on their ability to protect water quality, and for each alternative an analysis shall be made whether the alternative meets the closure performance standards in Title 27 Section 22510 and remedial goals of State Water Board Resolution No. 92-49. For any engineered alternatives to the prescriptive standard in Title 27 Section 22510, the analysis shall also include the evaluation required in Title 27 Section 20080(b). If the recommended corrective measures include either a regulated discharge to surface water or land disposal of mining wastes, a complete report of waste discharge and appropriate application filing fee must accompany the Engineering Feasibility Study. Land disposal alternatives must also comply with the California Environmental Quality Act (CEQA). This study must include all data analysis collected per the characterization work plan in Item 3, an evaluation of that data and a characterization of the waste per Title 27 Section 22480.

5. By **31 December 2008** the Discharger shall submit a Closure Plan for the mine waste rock piles and tailings based on the approved corrective measures (described in the Engineering Feasibility Study) and in compliance with Title 27. The Closure Plan shall include a Construction Quality Assurance Plan per Title 27 Section 20323.
6. The tailings and waste rock piles shall be closed by **29 August 2009** per the Closure Plan in Item 5.
7. By **31 December 2008** the Discharger shall submit a report that fully characterizes the chemistry and volume of any mine drainage or spring releases to surface waters from mine adits, shafts or tunnels on the site. The report must provide an evaluation and proposal for mine drainage abatement measures.
8. By **29 November 2009**, the Discharger shall submit the final Construction Quality Assurance Report per Title 27 Section 20324 providing evidence that the Closure Plan was implemented as proposed and the construction of any unit(s) was completed in accordance with design criteria, plans and specifications.

In addition to the above, the Discharger shall comply with all applicable provisions of the California Water Code that are not specifically referred to in this Order.

In accordance with California Business and Professions Code Sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not

explicitly stated. Each technical report submitted by the Discharger shall contain the professional's signature and/or stamp of the seal.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

Failure to comply with this Order may result in the assessment of an Administrative Civil Liability up to \$1,000 per day or up to \$10,000 per day of violation, depending on the violation, pursuant to the California Water Code, including Sections 13268, 13271, and 13350. The Regional Water Board reserves its right to take any enforcement actions authorized by law.

This Order is effective upon date of signature.

Original signed by  
\_\_\_\_\_  
PAMELA C. CREEDON, Executive Officer  
  
29 August 2007  
\_\_\_\_\_  
(Date)

RDA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2007-0724  
FOR  
DONALD A. MONDANI, DOUGLAS W. MONDANI,  
AND GERALDINE M. CASSINELLI  
NEWTON COPPER MINE  
AMADOR COUNTY

Monitoring and Reporting Program (MRP) No. R5-2007-0724 is issued to Donald Mondani, Douglas Mondani, and Geraldine Cassinelli, jointly hereafter "Discharger", pursuant to Section 13267 of the California Water Code and Cleanup and Abatement Order (CAO) No. R5-2007-0724. This MRP is necessary to provide monitoring and reporting requirements for cleanup of acid mine drainage pollution to Copper Creek from the Newton Copper Mine.

The Discharger shall submit reports required by this MRP pursuant to Section 13267 of the California Water Code. Failure to submit the required reports can result in the imposition of civil monetary liability. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

**MONITORING**

The Discharger shall collect water samples beginning in October 2007. Samples shall be collected from the following locations: East Fork Copper Creek above Newton Copper Mine, East Fork Copper Creek below Newton Copper Mine tailings and seeps discharging from the tailings. Sample collection shall follow standard USEPA protocol. Samples will be analyzed for the constituents listed in Table 1. Samples shall be collected monthly between October 2007 and March 2009. Samples may be collected quarterly thereafter.

<b>Table 1- Surface Water Sampling</b>		
<u>Parameters</u>	<u>Units</u>	<u>Method</u>
<b><u>Field Parameter</u></b>		
Flow Rate	gallons/minute	Estimate
Temperature	°C	Field Meter
Specific Conductance	µmhos/cm	Field Meter
pH	pH number	Field Meter
<b><u>Monitoring Parameters</u></b>		
Total Dissolved Solids	mg/L	EPA 160.1
Total Alkalinity	mg/L	EPA 310.1
Total Hardness	mg/L	EPA 310.1
Bicarbonate	mg/L	EPA 310.1
Sulfate	mg/L	EPA 310.0
Arsenic	ug/L	EPA 200.8
Aluminum	ug/L	EPA 200.7
Copper	ug/L	EPA 200.7
Lead	ug/L	EPA 200.7
Manganese	ug/L	EPA 200.7
Iron	ug/L	EPA 200.7
Nickel	ug/L	EPA 200.7
Zinc	ug/L	EPA 200.7
Selenium	ug/L	EPA 200.7
Magnesium	ug/L	EPA 200.7

## REPORTING

The Discharger shall report field and laboratory test results in monthly or quarterly monitoring reports. The reports shall be prepared by a professional engineer or geologist registered in the State of California. Between November 2007 and April 2009, reports shall be submitted monthly, on the last day of the month following the sampling period (ie. the October 2007 report is due by 30 November 2007). Beginning with the second quarter 2009, reports shall be submitted quarterly, on the last day of the month following the end of the quarter (ie. the second quarterly report is due by 30 April 2009). The Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. A discussion of the monitoring results shall precede the tabular summaries.

Each report is to include the following information:

- (a) A discussion on the status of the mine site and tailings piles for the period including any problems associated with major rainfall events, tailings erosion, mass wasting, ponding, or other related information.
- (b) Tabulated **cumulative** monitoring data for each monitoring location.
- (c) A copy of any laboratory analytical reports and chain of custody.

The results of any monitoring done more frequently than required at the locations specified in the MRP shall also be reported to the Regional Water Board.

A letter transmitting the monitoring reports shall accompany each report. The letter shall include a discussion of any changes in water quality found during the reporting period. Also, actions taken or planned for mitigation and site cleanup shall be discussed in the report. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agents, as described in CAO R5-2007-0724 second paragraph under Hereby Order Section.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: \_\_\_\_\_ original signed by \_\_\_\_\_  
PAMELA C. CREEDON, Executive Officer

29 August 2007

\_\_\_\_\_  
Date

RDA