

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2002-0153

NPDES NO. CA0081876

WASTE DISCHARGE REQUIREMENTS  
FOR  
MINING REMEDIAL RECOVERY COMPANY, INC.  
MAMMOTH, SUTRO, KEYSTONE, STOWELL, BALAKLALA,  
SHASTA KING, AND EARLY BIRD MINES  
SHASTA COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

1. Mining Remedial Recovery Company, Inc., (hereafter Discharger) submitted a Report of Waste Discharge, dated 15 May 2001, and applied for a permit renewal to discharge waste under the National Pollutant Discharge Elimination System (NPDES) from the Mammoth, Sutro, Keystone, Stowell Balaklala, Shasta King, and Early Bird Mines, Shasta County. The mines are currently regulated under Waste Discharge Requirements Order No. 96-154 (NPDES No. CA0081876)
2. The Discharger discharges acid mine drainage (AMD) from several adits from the non-operating Mammoth, Sutro, Keystone, Stowell, Balaklala, Shasta King, and Early Bird Mines. The Mammoth Mine is in Section 32, T34N, R5W, and Section 5, T33N, R5W, MDB&M, and the Sutro is in Section 29, T34N, R5W, and Section 5, T33N, R5W, MDB&M as shown on Attachment A, which is incorporated herein and made a part of this Order. The Keystone and Stowell Mines are in Section 14, T33N, R6W, MDB&M; the Early Bird Mine is in Section 11, T33N, R6W, MDB&M; and the Balaklala and Shasta King Mines are in Section 12, T33N, R6W, MDB&M, as shown on Attachment B, which is incorporated herein and made a part of this Order.
3. The mines, with the exception of the Stowell Mine are in the Lake Shasta Drainage Hydrologic Area (No. 506.20) as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986. The Stowell Mine is in the Spring Creek Hydrologic Area (NO. 524.40). The mean annual rainfall is approximately 64 inches and the 10-year 24-hour storm is 7.0 inches. The pan evaporation rate is approximately 68 inches per year, based on information obtained from DWR Bulletin 73-79 (November 1979).
4. Mining activities were initiated in the 1880's through the early 1890's. Many of the mines began as small gold mines and later became major producers of copper from the sulfide ore bodies. Mining generally ceased after 1927 with only limited, sporadic exploratory work occurring since. The extraction of large quantities of ore from the mines resulted in extensive development of the underground workings, the principal source of AMD.

5. AMD is formed when rainwater infiltrates into the mine workings through soil and rock. This water contacts sulfide deposits open to air in the old tunnel complexes of the mines. The ensuing chemical reaction significantly lowers the pH of the water. As this water moves out of the mine tunnels, its acidic nature leaches metals from the rocks. The discharge, commonly from mine portals, is toxic to fish and other aquatic organisms.

6. Current and past point source discharges of AMD to surface waters include the following:

<u>Source</u>	<u>Discharge Point</u>	<u>Discharge Identification Number</u>
Friday-Louden Adit (Mammoth Mine)	Shoemaker Gulch, approximately 3/4 mile upstream of its confluence with Lake Shasta	001
300 Level Adit (Mammoth Mine)	Little Backbone Creek, approximately 1/2 mile upstream of its confluence with Lake Shasta	002
Gossen Adit (Mammoth Mine)	Little Backbone Creek, approximately 1/2 mile upstream of its confluence with Lake Shasta	003
Keystone Adit (Keystone Mine)	West Squaw Creek, approximately 2 miles upstream of its confluence with Lake Shasta	004
Stowell Adit (Stowell Mine)	Spring Creek, approximately 5 miles upstream of its confluence with Keswick Reservoir	005
North 470 (Mammoth Mine)	South Fork Little Backbone Creek, approximately 1 mile upstream of its confluence with Lake Shasta	006
Lower Stowell (Stowell Mine)	Spring Creek, approximately 5 miles upstream of its confluence with Keswick Reservoir	007
Mason	North Fork Little Backbone Creek, approximately 1-1/2 miles upstream of its confluence with Lake Shasta	008
East 470 (Mammoth Mine)	Little Backbone Creek, approximately 1/2 mile upstream of its confluence with Lake Shasta	009
Balaklala Adit	West Squaw Creek, approximately 2 miles upstream of its confluence with Lake	010

<u>Source</u>	<u>Discharge Point</u>	<u>Discharge Identification Number</u>
	Shasta	
Shasta King Adit	West Squaw Creek, approximately 1.5 miles upstream of its confluence with Lake Shasta	011
Early Bird Adit	West Squaw Creek, approximately 2.5 miles upstream of its confluence with Lake Shasta	012
Weil Adit	West Squaw Creek, approximately 1.75 miles upstream of its confluence with Lake Shasta	013
Stowell Adit 3	Spring Creek, approximately 5 miles upstream of its confluence with Keswick Reservoir	014

7. The Discharger discharges AMD from other point and non-point sources on their property including, but not limited to, seeps, exposed ore and mineral zones, and waste rock dumps.
8. The discharge of metals from the mine portals is only a portion of the total metal loading to the respective water courses. For example, over 90 percent of the metal loading in West Squaw Creek from 1998-1999 is from non-point sources, either natural or man induced, as shown in the table below.

West Squaw Creek Metals Loading  
(1998-1999)

Metal	Total Portal Loading (lbs/day)	West Squaw Creek (lbs/day)	Percent Contribution of Portals
Copper	2.1	31	6.7
Zinc	3.3	45	7.3
Cadmium	0.02	-	NA

9. From the period of 1980 to present, the mine owners implemented numerous remedial measures at the mines, including the installation of concrete bulkhead seals in the mine portals (Discharge Points 001 through 013), surface water diversions, passive treatment systems, waste rock sequestering, etc. The concentration and discharge rate of selected metals for Discharges 001 through 005 and 010 through 014 prior to implementation of remedial activities are characterized in Table 1, which is incorporated herein and a part of this Order.

10. Inspections conducted by staff and review of the Discharger's monitoring reports have shown the seals to be partially effective. Discharges from the Weil Adit of the Balaklala Mine, and the 300 Level and Gossen Adits of the Mammoth Mine have been eliminated; however, AMD is discharging from adits, seeps, and fractures around the Mammoth, Keystone, Lower Stowell, and Balaklala Mines. The daily metal loads from the Early Bird Mine have been reduced over 99 percent as required. Discharges from identified adits are characterized, based on 1999 data, as shown in Table 2, which is incorporated herein and a part of this Order.
11. The discharge of AMD from the Keystone, Balaklala, and Lower Stowell adits, and the discharge of AMD from seeps and fractures at the Keystone and Mammoth Mines, are in violation of Discharge Prohibitions, Discharge Specifications, and Receiving Water Limitations contained in the existing NPDES permit and cease and desist order adopted by the Board. The continued discharge of AMD from these sources despite the remedial efforts by the Discharger, constitutes a violation of this permit. A new cease and desist order is proposed for adoption by the Regional Board that contains a reasonable time schedule for either achieving compliance with all Prohibitions, Specifications, and Limitations specified in this Order, or succeeding in modifying the designated, but not existing, beneficial uses of the respective watercourses.
12. The Discharger has submitted a report titled *MRRC, Shasta Area Mines, Site-wide Water Monitoring Network Work Plan, Shasta County, California*, dated June 2002. The Work Plan contains the Dischargers proposal for installation of continuous monitoring devices in a number of tributaries in the Little Backbone Creek and West Squaw Creek watersheds in an effort to identify the origin of the highest metal loading during storm events when these areas are inaccessible.
13. The mines are in a remote, steep mountainous area west and south west of Shasta Lake. Access to the mines is difficult and utilities (power, water) do not exist. Due to the difficulties inherent in accessing the mines and developing a large infrastructure, it is unreasonable and inappropriate to apply effluent limits developed for active copper mines and listed in 40 CFR 440.102, to the mine portals. Therefore, rather than requiring adherence to strict, numeric effluent limits which may only be obtainable by application of active treatment technology (i.e. lime neutralization), the Regional Board finds the application of Best Management Practices (BMPs) including installation of concrete bulkhead seals, surface water management, and operation of passive treatment systems (i.e. constructed wetlands, anoxic limestone drains, etc.) to be appropriate.
14. Inspections by staff of the mouths of Little Backbone Creek and West Squaw Creek at Shasta Lake in the spring months over the past 20 years have shown a significant reduction in the number of fish kills present, dropping from several thousand trout in the 1970s to a

few (less than five) noted in the past several years. This reduction of fish mortality in Shasta Lake is a direct result of the remedial measures implemented at the mines to date.

### GENERAL FINDINGS

15. The Regional Board adopted a *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins* (hereafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and describes an implementation program and policies to achieve water quality objectives for all waters of the Basin. This includes plans and policies adopted by the SWRCB and incorporated by reference, such as Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. These requirements implement the Basin Plan.
16. The Basin Plan at page II-2.00 states: “Existing and potential beneficial uses which currently apply to surface waters of the basins are presented in Figure II-1. The beneficial uses of any specifically identified water body generally apply to its tributary streams.” The Basin Plan does not specifically identify beneficial uses for Little Backbone Creek, West Squaw Creek, and Spring Creek, but the Basin Plan does identify present and potential uses for Shasta Lake, to which Little Backbone Creek and West Squaw are tributary; and Keswick Reservoir and the Sacramento River to which Spring Creek is tributary.

The Basin Plan identifies the following beneficial uses for Shasta Lake: municipal and domestic supply (MUN); agricultural irrigation (AGR); hydropower generation (POW); contact and non-contact recreation (REC1, REC2); freshwater habitat (WARM, COLD); fish spawning (WARM, COLD); and wildlife habitat (WILD).

The beneficial uses of Keswick Reservoir and the Sacramento River are municipal and domestic supply (MUN); agricultural irrigation and stock watering (AGR); Industrial Service (IND), hydropower generation (POW); contact and non-contact recreation (REC1, REC2); freshwater habitat (WARM, COLD); warm and cold water fish migration (MGR), spawning (WARM, COLD); and wildlife habitat (WILD), and Navigation (NAV).

In addition, State Board Resolution No. 88-63, incorporated into the Basin Plan pursuant to Regional Board Resolution 89-056, requires the Regional Board to assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in Table II-1.

The Basin Plan states on page II-1.00: “Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning...” and with respect to disposal of wastewaters states that “...disposal of wastewaters is [not] a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses.”

Upon review of the flow conditions, habitat values, and beneficial uses of Little Backbone Creek, West Squaw Creek, and Spring Creek, and the hydraulic continuity, potential aquatic

life migration, potential for contact recreation, and potential for preservation and enhancement of fish, wildlife and other aquatic resources, the Regional Board finds that the beneficial uses identified in the Basin Plan for Shasta Lake are applicable. However not all the designated beneficial uses exist now or have existed in the past for Little Backbone Creek, West Squaw Creek, and Spring Creek.

a. *Domestic Supply and Agricultural Supply*

The Regional Board is required to apply the beneficial uses of municipal and domestic supply to the tributaries of Shasta Lake, Keswick Reservoir and the Sacramento River based on State Board Resolution No. 88-63 which was incorporated in the Basin Plan pursuant to Regional Board Resolution 89-056. In addition, the State Water Resources Control Board (SWRCB) has issued water rights to existing water users along Shasta Lake, Keswick Reservoir and the Sacramento River downstream of the discharge for domestic and irrigation uses.

b. *Water Contact and Noncontact Recreation and Esthetic Enjoyment*

The Regional Board finds that there is ready public access to the lower reaches of Little Backbone Creek, West Squaw Creek, and Spring Creek, exclusion of the public is unrealistic and contact recreational activities currently exist at the mouth of each stream where they enter Shasta Lake or Keswick Reservoir.

c. *Freshwater Replenishment*

There is hydraulic continuity between Little Backbone Creek, West Squaw Creek and Shasta Lake. There is also hydraulic continuity between Spring Creek and Keswick Reservoir. These streams add incrementally to the water quantity and may impact the quality of water flowing from Shasta Lake and Keswick Reservoir.

d. *Preservation and Enhancement of Fish, Wildlife and Other Aquatic Resources.*

Little Backbone Creek and West Squaw Creek flow into Shasta Lake. Spring Creek flows into Keswick Reservoir. Fish species present in Shasta Lake, Keswick Reservoir, and downstream waters are consistent with both cold and warm water fisheries. There is a potential for trout migration necessitating a cold water designation and that trout, a cold water species, have been found upstream of the mine discharges in West Squaw Creek and Spring Creek but not downstream in any of the receiving waters. Trout and other fish species both warm and cold are present in Shasta Lake, Keswick Reservoir, the Sacramento River and their tributaries. The Basin Plan (Table II-1) designates Shasta Lake and Keswick Reservoir and the Sacramento River as being both a cold and warm freshwater habitat. Therefore, pursuant to the Basin Plan (Table II-1, Footnote (2)), the cold designation applies to Little Backbone Creek, West Squaw Creek, and

Spring Creek. The cold-water habitat designation necessitates that the in-stream dissolved oxygen concentration be maintained at, or above, 7.0 mg/l. This approach recognizes that, if the naturally occurring in-stream dissolved oxygen concentration is below 7.0 mg/l, the Discharger is not required to improve the naturally occurring level.

17. USEPA adopted the *National Toxics Rule* (NTR) on 5 February 1993 and the *California Toxics Rule* (CTR) on 18 May 2000. These Rules contain water quality standards applicable to this discharge. The State Water Resources Control Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Policy), which contains guidance on implementation of the NTR and the CTR.
18. There is no evidence that the designated beneficial use for support of a warm or cold water fishery in Little Backbone Creek, the lower reaches of West Squaw Creek and Spring Creek were present below the sources of AMD prior to adoption of the Basin Plan.
19. The beneficial uses of the underlying groundwater are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
20. The U.S. Environmental Protection Agency (USEPA) and the Regional Board have classified this discharge as a major discharge.
21. Federal regulations contained in 40 CFR 122.44(d) require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numerical water quality standard. Based on information submitted as part of the application, in studies, and as directed by monitoring and reporting programs the Regional Board finds that the discharge does have a reasonable potential to cause or contribute to an in-stream excursion above a water quality for dissolved copper, zinc, cadmium, and pH. Narrative effluent limitations for these constituents are included in this Order.
22. On 6 June 2001, the Discharger was issued a letter under the authority of California Water Code Section 13267 requesting effluent and receiving water monitoring to meet the requirements of the State Implementation Policy (SIP). Federal regulations contained in 40 CFR 122.44 (d) require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numerical water quality standard. The Discharger has sampled the effluent from the Keystone Mine and the respective receiving waters in West Squaw Creek, and effluent from the Mammoth Mine (Friday-Louden Portal) and the receiving waters in Little Backbone Creek once to determine if the priority pollutants established in the CTR and NTR were detected. Analytical results were submitted for volatile substances, semi-volatile substances, pesticide compounds, metals, asbestos, and dioxin.

Asbestos, dioxin, and seventy-four priority pollutant organic substances were not detected in the effluent and receiving water samples at concentrations that will cause or contribute to a violation of any applicable water quality criteria contained in the Basin Plan. Water quality criteria have been established for the remaining thirty-four volatile substances, semi-volatile substances, and pesticides at concentrations less than current laboratory detection limits. It is reasonable to assume (based on the nature of the discharge-acid mine drainage from a sulfide ore deposit) that these organic substances will not cause or contribute to violations of water quality criteria either. Several priority pollutant metals were detected above minimum levels identified in the SIP, including arsenic, cadmium, copper, lead, mercury, nickel, zinc, and cyanide.

23. Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard. This Order contains narrative effluent limits for the discharges of AMD from mine portals.

Federal Regulations also allow less stringent standards providing adequate information is presented. The Regional Board may consider adopting site specific objectives, or if the site-specific objectives are anticipated to be infeasible, a Use Attainability Analyses (as described in 40 CFR 131.10(j)) may be conducted in an effort to remove or modify a designated beneficial use.

24. A recent study conducted by the Discharger to support a possible change in the designated beneficial use for West Squaw Creek showed the presence of an acid tolerant benthic aquatic community but no evidence of a fishery within or below the reach receiving AMD from the mines. The exception was the presence of fish in West Squaw Creek downstream of the tributary from the Early Bird Mine.
25. Monitoring data from the mine discharges and the receiving waters indicate that even if all portal flows were eliminated and all waste rock dumps adequately controlled, the receiving water concentrations of metals from non-point sources in West Squaw Creek and Little Backbone Creek would still prevent the establishment of a warm or cold water fishery or spawning habitat, two of the designated beneficial uses.
26. Water quality above the point where discharges from the portals or runoff from the former waste rock dump at the Stowell Mine is adequate to support a fishery in Upper Spring Creek. There is no other significant metal contribution to Spring Creek for approximately seven miles downstream at Iron Mountain Mine. Just above the influence of metal laden discharges from Iron Mountain Mine, Spring Creek is diverted to Flat Creek which enters Keswick Reservoir. Data indicates that if remedial activities are successful at the Stowell Mine, approximately seven miles of stream will be suitable to support a fishery.



27. The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), in accordance with Section 13389 of the California Water Code.
28. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.
29. The Regional Board has considered the information in the attached Information Sheet in developing the findings in this Order. The attached Information Sheet is part of this Order.
30. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
31. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.
32. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect 10 days from the date of hearing, provided USEPA has no objections.
33. The facility is not subject to a federal storm water permit at this time. However, storm water discharges from the facility are covered under this permit.

**IT IS HEREBY ORDERED** that Order No. 96-154 is rescinded and that Mining Remedial Recovery Company, Inc., its agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

**A. Discharge Prohibitions**

1. The direct discharge of acid mine drainage (AMD) from portals or fissures to surface water drainage courses is prohibited, except as provided in Effluent Limitation B.2.

**B. Effluent Limits (Discharge 001 through 014)**

1. The average annual discharge rate (lbs/day) of AMD resulting from control actions not utilizing active treatment for Discharges 001 through 005 and 010 through 014, shall not exceed one percent of the discharge rate prior to control (99 percent removal).

2. The Discharge shall implement site-specific Best Management Practices (BMPs) to reduce or prevent pollutants associated with AMD. The BMPs may include, but not be limited to, a variety of pollution prevention or pollution control measures such as installation of concrete bulkhead seals, passive treatment systems, injection of neutralizing agents into underground workings, run-on and run-off controls, consolidation and capping of reactive waste rock, or other technologies as they are developed.

**C. Discharge Specifications**

1. Neither the treatment nor the discharge shall cause a pollution or nuisance as defined by the California Water Code, Section 13050.
2. The discharge shall not cause degradation of any water supply.
3. Storm water discharges to any surface or ground water shall not adversely impact human health or the environment.
4. Storm water discharges shall not cause or contribute to a violation of any applicable water quality standards contained in the Basin Plan.

**D. Sludge, Overburden, and Waste Rock Management**

1. Collected screenings, sludge and other solids removed from liquid waste, waste rock, overburden, and tailings shall be disposed of in a manner approved by the Executive Officer and consistent with *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, California Code of Regulations (CCR), Division 2, Subdivision 1, Section 20005, et seq.

**E. Receiving Water Limitations**

Receiving Water Limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this permit.

The discharge shall not cause the following in Little Backbone Creek, West Squaw Creek, Shasta Lake, Spring Creek, or Keswick Reservoir:

1. Concentrations of heavy metals to exceed the following:

<u>Parameter</u>	<u>Concentration<sup>1</sup></u> <u>µg/l</u> <u>(Dissolved)</u>
Cadmium	0.22 <sup>2,3</sup>
Copper	4.1 <sup>2,4</sup>
Zinc	16.0 <sup>2,3</sup>

<sup>1</sup> The above concentrations are water quality objectives based upon a receiving water hardness of 40 mg/l. Metal limitations vary with hardness of the receiving waters as follows:

$$\begin{aligned} \text{Cadmium} &= e^{(1.160)(\ln \text{ hardness})-5.777} \times 10^{-3} \\ \text{Copper} &= e^{[(0.8545)(\ln \text{ hardness})-1.702] \times (0.960)} \times 10^{-3} \\ \text{Zinc} &= e^{(0.830)(\ln \text{ hardness})-0.289} \times 10^{-3} \end{aligned}$$

<sup>2</sup>The noted concentrations are those identified as Water Quality Objectives for the protection of the designated beneficial use for Freshwater Habitat based on toxicity studies on salmonids. If the beneficial uses are modified in the basin plan, the receiving water limits may also change.

<sup>3</sup>These Water Quality Objectives are listed in Table III-1 of the Basin Plan.

<sup>4</sup>Water Quality Objective contained in the California Toxic Rule.

2. The turbidity of receiving waters to increase over background levels by more than:
- 1 NTU when background turbidity is between 0 and 5 NTUs;
  - 20 percent when background turbidity is between 5 and 50 NTUs;
  - 10 NTUs when background turbidity is between 50 and 100 NTUs; and
  - 10 percent when background turbidity is greater than 100 NTUs.

In determining compliance with the above limits, appropriate averaging periods may be applied upon approval by the Executive Officer.

3. Suspended material in concentrations that cause nuisance or adversely affect beneficial uses.

4. Deposition of material that causes nuisance or adversely affects beneficial uses.
5. The normal ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units. In determining compliance with these limits, appropriate averaging periods may be applied upon approval by the Executive Officer.
6. Increase the normal ambient temperature of waters by more than 5°F (3°C). In determining compliance with these limits, appropriate averaging periods may be applied upon approval by the Executive Officer.
7. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.
8. Oils, greases, waxes, floating material (liquids, solids, foams, and scum), or suspended materials to create a nuisance or adversely affect beneficial uses.
9. Aesthetically undesirable discoloration.
10. Fungi, slimes, or other objectionable growths.
11. Concentration of dissolved oxygen to fall below 7.0 mg/L. The monthly median of the mean daily dissolved oxygen concentration shall not fall below 85 percent of saturation in the main water mass, and the 95<sup>th</sup> percentile concentration shall not fall below 75 percent of saturation.
12. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or to cause nuisance or adversely affect beneficial uses.
13. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.
14. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulation in aquatic resources at levels which are harmful to human health.
15. Violations of any applicable water quality standard for receiving waters adopted by the Regional Board or the SWRCB pursuant to the CWA and regulations adopted thereunder

## F. Provisions

1. The Discharger shall comply with all items of the “Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES),” dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as “Standard Provision(s).”
2. The Discharger shall comply with the attached Monitoring and Reporting Program No.R5-2002-0153, which is a part of this Order, and any revisions thereto as ordered by the Executive Officer.
3. The Discharger shall install and maintain remote monitoring devices in each watershed as described in the report titled *MRRC, Shasta Area Mines, Site-wide Water Monitoring Network Work Plan, Shasta County, California*, dated June 2002. The Discharger shall submit both paper summaries and electronic copies of the data to the Regional Board on a quarterly basis. Changes in the monitoring network must be approved by the Executive Officer.
4. This Order will may be reopened if adequate information is presented to show site specific objectives are warranted, or if the site-specific objectives are anticipated to be infeasible, a Use Attainability Analyses (as described in 40 CFR 131.10(j).) is presented and the Regional Board decides to remove or modify a designated beneficial use.
5. Prior to **15 October** of each year, the Discharger shall implement necessary erosion control measures and any necessary construction, maintenance, or repairs of drainage and erosion control facilities
6. The Discharger shall immediately report to the Regional Board any spill that potentially impacts surface waters.
7. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
8. The Discharger shall comply with the standards contained in the Health and Safety Code, Chapter 6.67, Aboveground Storage of Petroleum.
9. The Discharger shall report promptly to the Regional Board any material change or proposed change in the character, location, or volume of the discharge.

10. The Discharger shall use the best management practices currently available and appropriate for site conditions to comply with discharge limits specified in this Order.
11. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
12. This Order expires on **1 September 2007** and the Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than **180 days** in advance of such date for renewal of waste discharge requirements if it wishes to continue the discharge.
13. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, the name, address, and the telephone number of the persons responsible for contact with the Regional Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision D.6 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

I, Thomas Pinkos, Acting Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 6 September 2002.

\_\_\_\_\_  
Thomas Pinkos, Acting Executive Officer

\_\_\_\_\_  
6 September 2002

(Date)

PVW: