

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2007-0181

WASTE DISCHARGE REQUIREMENTS
FOR

RICHARD SYKORA
AND
THE UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE
RED INK MAID AND BIG SEAM MINE
PLACER COUNTY

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

1. On 27 June 2006 Richard Sykora submitted a Report of Waste Discharge for waste discharge requirements (WDRs) for the Red Ink Maid and Big Seam Mine (site). Additional information to support the Report of Waste Discharge (RWD) was submitted periodically between June 2006 and August 2007.
2. The land where the Red Ink Maid and Big Seam Mine claims are located is owned by the United States Government and administered by the United States Department of Agriculture, Forest Service (Forest Service).
3. Richard Sykora is the mine claimant and operator and therefore has primary responsibility for compliance with these WDRs, including day-to-day operations, monitoring, and reclamation. The Forest Service is the administrator of the federal land where the discharge occurs, and is ultimately responsible for ensuring compliance with these WDRs and therefore is also named as a Discharger. For the purposes of these WDRs, unless otherwise noted, the term "Discharger" refers to Richard Sykora.
4. Authorization to enter National Forests for mineral development is provided by 16 U.S.C. 478. Mining at the site has been authorized under the Mining Laws governing locatable minerals on the Foresthill Ranger District, Tahoe National Forest, under 36CFR228A. No prior WDRs have been issued for the site.

SITE DESCRIPTION

5. The site is located on two contiguous 20-acre parcels of land within the Tahoe National Forest. The site is located near the 6-mile mark of Mosquito Ridge Road in the Foresthill area. The site is part of APN # 254-210-001 in Placer County.
6. The mine is an underground lode gold mine, accessed by one portal on the Big Seam mining claim. Information provided by the Discharger states that the mine does not have a portal discharge to surface waters. Waste rock created by drilling and blasting inside

the mine is loaded and transported out of the underground workings with an underground load-haul-dump vehicle and side cast onto the waste dumps.

7. The property slopes to the south and overlooks the Middle Fork of the American River. The mining claims are located on slopes varying between 30-75%. Access to the mine site is through a steep dirt/gravel road that is unsuitable for regular traffic. The road was built to enable the development and production of mining in 1987.
8. There are four existing waste dumps on the site, and a fifth proposed waste dump area. The four existing waste dumps are located directly in front and to the east of the mine portal and cover about two acres. Waste dump #1 has resulted in a fairly level area, which serves as the base of the portal area. Waste dumps #1-4 have slopes ranging from 55-75%. Lack of capacity and stability issues restrict further placement of waste on waste dumps #1-4. The proposed waste dump #5 is to the west of the portal and will be on land that slopes between 20-55%.
9. Local relief for the site area is about 300 feet, measured from Mosquito Ridge Road above the mine to the toe of the existing waste dumps. The steeply sloping Mad Canyon drainage is the nearest downgradient water course, approximately 1,000 feet south and 600 feet below the site.
10. The Discharger works year round, three to four days per week at the site, but could possibly work five to six days per week and proposes to mine up to 700 cubic yards per year. The Discharger states that the mine consists of approximately 1.75-miles of underground mine workings.
11. Gold mineralization occurs within veins in the host rock. Ore-bearing material is hand sorted and transported off site. No milling or processing takes place on these claims.

BACKGROUND INFORMATION

12. The mining claims have been in operation since 1975, with the initial Forest Service Plan of Operations dating to 1987. The most recent conditions of approval of the Plan of Operations is dated 8 September 2004. It requires compliance with all applicable Federal, State, and local laws, regulations, and standards. These include, but are not limited to, the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq., the Comprehensive Environmental Response, Control, and Liability Act 42 U.S.C. 9601 et seq., and other relevant environmental laws, as well as public health and safety laws and other laws related to the siting, construction, operation, and maintenance of any facility, improvement, or equipment on the property.
13. A slope failure occurred near the toe of waste dump #2 during the heavy rains of late 1996 and early 1997. This caused movement of the waste dump and discharge of the underlying colluvium into the drainage below.

14. In late March of 2006, a slope failure of waste dump #4 occurred following a month of unusually heavy precipitation. The failure involved a small access road in the uppermost portion of the waste dump #4. The failure resulted in vertical and slight lateral displacement of waste dump #4. Slide debris was substantially contained in a more gently sloping area within the lower portions of waste dump #4.
15. On 23 March 2006, Regional Water Board staff inspected the site and observed waste rock from mining activities that had been previously discharged to waste dumps #1-4 and that a new access road to the proposed waste dump #5 had recently been constructed. The toe area of waste dump #2 was deeply eroded and evidence of soil material being discharged to Mad Canyon was observed. Waste dump #4 showed signs of a recent failure resulting in vertical and lateral movement of the waste dump. Limited vegetative cover to control erosion and reduce surface water infiltration of the dumps was observed as shown in Attachment B, which is incorporated herein and made part of this Order by reference.
16. In a 3 May 2006 letter, Regional Water Board staff requested that the Discharger file a RWD for the mining operation. Staff requested that waste characterization and slope stability analysis of the existing waste dumps and the proposed waste dump be completed first in order that proper waste classification and waste containment unit design be determined at the outset. The Discharger submitted technical information addressing these issues.
17. The Discharger's consultant, the Department of Conservation, and Regional Water Board staff have all identified that reclamation of waste dumps #1-4 is necessary to control erosion, reduce infiltration, and provide for increased slope stability. Although the Discharger's reclamation plan extends final reclamation of these waste dumps to 2015, this Order requires completion of reclamation activities by 2009 to reduce the threat to water quality caused by slope failure of the waste dumps.
18. The Discharger's mining and reclamation plan and related financial assurance have been previously approved by Placer County, the lead agency for the project. Therefore, this Order does not require the Discharger to provide separate financial assurances as specified in Title 27.

WASTE CHARACTERIZATION

19. Title 27 defines mining wastes and classifies mining wastes into three groups. Mining waste includes: overburden, natural geologic materials that have been removed or relocated but have not been processed (i.e., waste rock), and the solid residues, sludges, and liquids from the processing of ores and mineral commodities. Mining waste produced at this site are natural geologic materials that have been removed or relocated but have not been processed and are therefore termed "waste rock."

20. Title 27 classifies mining waste based on an assessment of the potential risk of water quality degradation posed by each waste. "Group A mining wastes" are wastes that must be managed as hazardous waste pursuant to Chapter 11 of Division 4.5, of Title 22, provided that the Regional Water Board finds that such mining wastes pose a significant threat to water quality. "Group B mining waste" is defined in Title 27 as a mining waste that consist of, or contains, nonhazardous soluble pollutants at concentrations which exceed water quality objectives for, or could cause degradation of, waters of the state. "Group C mining wastes" are wastes from which any discharge would be in compliance with the applicable water quality control plan, including water quality objectives, other than turbidity.
21. Three samples of waste rock from existing waste dumps #1-4 were collected and analyzed for Title 22 Metals. The metals analyzed included antimony, arsenic, barium, cadmium, cobalt, copper lead, mercury, nickel, vanadium, and zinc. Based on results of the Title 22 metals analyses, one sample was analyzed for acid-base accounting, including acid neutralization potential, acid generation potential, and pH. Laboratory testing of the sample resulted in a ratio of acid neutralizing potential to acid generating potential of 17 to 1, indicating that the waste material is likely not acid generating. These results, and the Discharger's evaluation, show that the waste rock from the site should not be acid generating.
22. Review of the Title 22 analytical testing confirms that none of the analytic results exceeded either hazardous waste total threshold limits concentrations or soluble threshold limit concentrations. Soluble arsenic in one sample was detected at a concentration of 8.1 micrograms per liter as determined by the California Waste Extraction Test using deionized water extractant solution. The elevated values reported for total arsenic and soluble arsenic in the one elevated sample likely represent a high concentration bias because samples submitted for analysis do not include the coarse fraction of the stockpiles. The sand and finer grain-sized samples are expected to exhibit higher concentrations of soluble constituents than the waste rock as a whole, which is composed predominantly of gravel and cobble-sized rock fragments.
23. Analysis of mining waste from the site indicates that the waste is classified as a Group C mining waste. Based on waste characterization described in the above Findings, the discharge of waste rock from the site should not pose a significant threat to water quality, other than turbidity.
24. Erosion control measures, mitigation measures, and best management practices (BMPs) for the site are incorporated in the Forest Service Conditions of Approval for the Plan of Operations, Reclamation Plan, and SWPPP.

CONTAINMENT OF MINING WASTE

Waste Dump #5

25. Waste rock is to be placed into waste dump #5 as described in the Discharger's consultant's report dated 12 March 2007 and is to incorporate all Forest Service Mitigating Measures dated 20 September 2004 and related BMPs. Proper placement of the waste rock is necessary to ensure the stability of waste dump #5, including its foundation and final slopes under both static and dynamic conditions throughout the operating period, closure period, and post-closure maintenance period.
26. Mining activities at the underground gold mine will generate mine waste rock. Mine waste rock is to be deposited in waste dump #5 only. Storm water runoff from waste rock placed in waste dump #5 could pose a threat to water quality if not managed properly.
27. This Order includes the design and method of disposal of waste rock for waste dump #5. The design and method of disposal of waste rock to waste dump #5 is based on the Discharger's report dated 12 March 2007.
28. Initially, waste rock is to be dumped from the end of the existing access road into the waste dump #5. When sufficient material is present, a ramp is to be constructed into the bottom of the waste area and the waste material shaped and compacted. From that point forward, waste material is to be placed from the toe in an upgradient direction to promote stability. The final slope of waste dump #5 is not to exceed 33 degrees.
29. The face of the waste dump #5` is to be armored with coarse rock to control erosion during periods of inactivity and when the dump is complete. The Discharger is to prevent movement of fine material (soil and sediment) down gradient in the waste dump area by installing an approved erosion barrier as described in the Forest Service Mitigating Measures dated 20 September 2004.

CLOSURE AND POST-CLOSURE MAINTENANCE

30. The Discharger has a mining and reclamation plan and related financial assurance approved by Placer County, the lead agency for the project, (see California Surface Mining Reclamation Act (SMARA), Section 2770, et seq.) to pay for the costs of closure and post closure maintenance as required by 27 CCR 22510 (c) and (f).
31. These WDRs incorporate by reference the Discharger's mining and reclamation plan and approved financial assurance in place of Title 27 Closure and Post-Closure Maintenance Plan and Closure and Post-Closure Financial Assurances.
32. The Discharger has requested that the Regional Water Board waive the requirement that adds the Regional Water Board as an alternate payee to the existing financial assurance. These WDRs waive 27 CCR 22510 (g)(1) and (g)(2) as explained in Information Sheet.

CLIMATOLOGY

33. The weather station at the Foresthill Ranger Station is the closest public weather station to the site. The Foresthill area receives an average of 51.0 inches of precipitation per year, as measured at the station. The elevation of the station is approximately 3,011 feet above mean sea level, while the site elevation is approximately 2,000 feet above mean sea level. It is anticipated that the station data may represent wetter conditions than present at the site.
34. The 10-year, 24-hour precipitation event for the site is estimated to be 7.0 inches based on data from the National Oceanic and Atmospheric Administration, Atlas 14, Figure 28.
35. Based on information contained in the RWD, the site is not located within a 100-year flood plain.

GEOLOGY

36. The site is within the Complex Foothills Metamorphic Belt at a position approximately nine miles north of the generally accepted terminus of the Mother Lode Gold Belt. The Foothills Metamorphic Belt is composed of a series of multiple deformed, accreted blocks. In the mine area, the rocks comprising the block are moderately metamorphosed upper Paleozoic sedimentary and intercalated volcanic rocks of the Calaveras group that are locally cut by dikes and multigenerational quartz veins. A complex mass of Upper Jurassic serpentinite lies north and west of the metasedimentary – metavolcanic mine area sequence and is separated from it by the Volcano Canyon thrust fault. Rock units within the immediate mine area most likely correlate with the Blue Canyon formation and consists of variable graphic slate, metaconglomerate, gritty quartzite and metagraywacke. The thickness of individual quartz veins is quite variable and progressive changes in unit thickness within the mine suggest the presence of one or more isoclinal folds.

SEISMIC CONDITIONS

37. The site is located near the eastern edge of the Foothills Fault System, a seismic zone composed of pre-Quaternary to Quaternary faults. The Foothills Fault System is designated as an areal, Type C seismic source with low seismicity and a low rate of recurrence. Type C faults are not capable of producing large magnitude earthquakes, and have a relatively low slip rate. Type C fault zones within 100 kilometers of the site are categorized as areal source zones with the hazard distributed over a large area instead of along a single fault trace, and include the Foothills Fault System, the Mohawk-Honey Lake Fault Zone, and the Western Nevada Zone. The Volcano Canyon fault, mapped approximately 1.5 miles west and north of the site, and the Foresthill fault, mapped approximately 4 miles west of the site, is included within the Foothills Fault System.
38. A search was performed by the Discharger's consultant of multiple earthquake data records for information about historic earthquakes between 1850 and 2004. The records

search indicate that 66 earthquakes with estimated magnitudes greater than 5.0 have occurred within 100 kilometers of the site since 1850, and that 12 earthquakes exhibited magnitudes greater than 6.0. The search indicated that the nearest historic earthquake was approximately 20 miles northwest of the site, and had a magnitude 5.0. The largest earthquake had a magnitude of 6.4 and was located approximately 60 miles (99 km) east of the site. The largest acceleration recorded during these historic events was 0.053g.

LAND AND WATER USE

39. Land uses within one mile of the perimeter of the site are entirely within the Tahoe National Forest. An Environmental Assessment prepared by the Forest Service for the mining activities indicates that the mining claims are located within the Tahoe National Forest Land and Resource Management Plan Area 099-Mosquito. This area is identified as having management opportunities for wildlife habitat improvement and view enhancement. The mine claims are also located within a Riparian Conservation Area.
40. Based on site observations and recent aerial photographs, only one residence is within one mile of the site. The residence is located adjacent to the American River, 0.6 miles from the mine.
41. Crops and livestock are not present within one mile of the perimeter of the site based on review of aerial photographs and site observations.
42. There are no known domestic or agricultural groundwater supply wells within one mile of the site.
43. There are no known current or estimated future uses of groundwater within one mile of the site.

SURFACE AND GROUND WATER CONDITIONS

44. The *Water Quality Control Plan for the California Regional Water Quality Control Board, Central Valley Region, 4th Edition* (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.
45. The Middle Fork of the American River is located approximately 0.4 miles south of the site. Oxbow Reservoir is located approximately 1.4 miles east-southeast and upstream of the site. Surface water drainage from the site is to Mad Canyon, a seasonal drainage, and tributary to the Middle Fork of the American River. The Middle Fork of the American River is tributary of the Sacramento River.
46. The beneficial uses of the Middle Fork of the American River (between its source and Folsom Lake), as specified in the Basin Plan, are municipal and domestic supply, agricultural supply, hydropower generation, water contact recreation, non-contact water

recreation, warm freshwater habitat, cold freshwater habitat, spawning, reproduction, and/or early development, and wildlife habitat.

47. When precipitation events occur, surface water runoff is diverted into existing channels. Site drainage is generally toward the south. Four small drainage basins ranging from 1.1 to 13 acres have been delineated at the site with peak flows ranging from 1.8 to 2.3 cubic feet per second per acre.
48. The beneficial uses of any underlying groundwater, as specified in the basin plan are: municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.
49. Groundwater beneath the site appears to be limited. There are no known perennial springs, creeks, or streams on the site. Fully saturated zones are not present in the soils or other geologic formations. No groundwater or significant seepage is encountered in the mine or discharged at the portal. Native slopes vary between 60-90 percent. For these reasons, groundwater monitoring is not feasible or practical.

WATER QUALITY PROTECTION STANDARD

50. A Water Quality Monitoring and Reporting Program as defined in 27 CCR 20380 is not required by these WDRs. Instead, Water Quality Protection Standards shall be implemented through State Water Resources Control Board (State Board) Water Quality Order No. 97-03-DWQ for Discharges of Storm Water Associated with Industrial Activities (General Industrial Permit). The analytical parameters, monitoring points, and implementation schedule are defined in the Discharger's Storm Water Pollution Prevention Plan (SWPPP). The General Industrial Permit shall apply during the active life of the site, the closure period, the post closure maintenance period, and during any compliance period as defined in Title 27.

CEQA AND OTHER CONSIDERATIONS

51. The Forest Service developed an Environmental Assessment (EA) and Finding of No Significant Impact under the implementing regulations of the National Environmental Policy Act. The Lead Agency (Placer County) certified the Negative Declaration for the facility on 7 December 2006. Placer County filed a Notice of Determination on 12 December 2007 in accordance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) and CEQA Guidelines (14 CCR Section 15000 et seq.).
52. The Regional Water Board considered the EA and the Mitigated Negative Declaration and incorporated the mitigating measures into these WDRs. The following list identifies the three significant issues identified in the EA and the Mitigated Negative Declaration for the project and the proposed mitigating measures.

- a. **Reclamation Plan.** Previously, a reclamation plan had not been prepared or approved for the project. The Discharger now has an approved SMARA reclamation plan and related financial assurance.
- b. **Visual Quality.** The foreground view of the existing waste areas and the proposed new road can be seen from the 6.5 mile turn-out on the Mosquito Ridge Road. The Forest Service has determined that if no other disturbance takes place on areas visible from Mosquito Ridge Road, the Retention Visual Quality Objectives may be achieved in 5 to 10 years.
- c. **Water Quality.** Stability of the new waste dump and its access road and effects to beneficial uses in the Middle Fork of the American River watershed from non-point source pollution were identified as water quality impacts. The Conditions of Approval for the Discharger's Plan of Operations, the Reclamation Plan, and these WDRs all implement reclamation and monitoring activities that would mitigate impacts and avoid the potential of adverse environmental impacts.

53. This Order incorporates and implements:

- a. Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins;
- b. The prescriptive standards and performance goals of Title 27 California Code of Regulations, effective 18 July 1997, and subsequent revisions;
- c. State Board Resolution No. 68-16 – The Anti-Degradation Policy.

54. Section 13267(b) of California Water Code provides that: "In conducting an investigation specified in subdivision (a), the Regional Water Board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposed to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who had discharged, discharges, or is suspected of discharging, or who proposed to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports."

55. The monitoring and reporting program required by this Order is necessary to assure compliance with these waste discharge requirements. Richard Sykora operates the facility and the Forest Service administers the facility that discharges the waste subject to this Order.

PROCEDURAL REQUIREMENTS

56. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.
57. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
58. The Regional Water Board notified the Discharger, including the Forest Service, and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
59. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
60. Any person affected by this action of the Regional Water Board may petition the State Water Resources Control Board to review the action in accordance with Sections 2050 through 2068, Title 23, California Code of Regulations. The petition must be received by the State Water Resources Control Board, Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812, within 30 days of the date of issuance of this Order. Copies of the laws and regulations applicable to the filing of a petition are available on the Internet at http://www.waterboards.ca.gov/water_laws/index.html and will be provided on request.

IT IS HEREBY ORDERED pursuant to Sections 13263 and 13267 of the California Water Code, that Richard Sykora and the United States Department of Agriculture Forest Service, their agents, successors and assigns, in order to meet the provisions of Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. Milling or mineral processing of any type is prohibited at the site. Chemical methods to recover gold such as amalgamation, cyanide leach, or any other chemical method are prohibited at the site.
2. The discharge of any additional waste to waste dumps #1-4 is prohibited.
3. The discharge of wastes outside of waste dump #5 is prohibited.

4. The discharge of waste at the site from sources other than the Red Ink Maid and Big Seam Mine underground mining activities is prohibited.
5. The discharge of 'hazardous waste', 'designated waste', 'Group A' or 'Group B' mining waste at this facility is prohibited. For the purposes of this Order, the terms 'hazardous waste', 'designated waste', and 'Group A' and 'Group B' mining waste are as defined in Division 2 of Title 27.
6. The discharge of solid waste or liquid waste to surface waters, surface water drainage courses (other than waste dump #5), or groundwater is prohibited.
7. The discharge of groundwater or mine water from the underground mine workings to surface water or surface water drainage courses is prohibited.
8. The accumulation of water or ponding of water on waste dumps #1-5 is prohibited.

B. DISCHARGE SPECIFICATIONS

General Specifications

1. The mine does not currently have a portal discharge to surface waters. If during the course of underground mining activities, the Discharger encounters any conditions that produce groundwater flows resulting in a portal discharge, the Discharger shall notify the Regional Water Board in writing within **seven days**.
2. The Discharger shall promptly report slope changes such as movement caused by slumping or slipping, or unusual erosion.
3. Wastes shall only be discharged into, and shall be confined to, waste dump #5.
4. The Discharger shall divert runoff around waste dumps #1-5 in a non-erosive manner.
5. The disposal of wastes shall not cause pollution or a nuisance as defined in the California Water Code, Section 13050.

Waste Dumps #1-4 Closure

6. Waste dumps #1-4 shall be fully reclaimed by **30 October 2009**. Reclamation measures such as hydroseeding or hydromulching that establish self-sustaining plant cover to control erosion, reduce infiltration, and provide for increased slope stability must be implemented. Reclamation and closure of waste dumps #1-4 shall be conducted under the direct supervision of a California registered civil engineer or certified engineering geologist.

7. By **30 November 2009**, the Discharger shall submit a report describing completion of reclamation and closure of waste dumps #1-4. The report shall be prepared by a registered civil engineer or certified engineering geologist and certified by the Discharger, pursuant to Standard Provisions Item VIII. A. 5 of the Standard Provisions.
8. The post-closure maintenance period shall end when the Regional Water Board determines that the water quality aspects of reclamation are complete and waste no longer poses a threat to water quality.

Waste Dump #5

9. Waste dump #5 shall be designed, constructed and maintained to prevent scouring and/or erosion of the mine waste material, the surrounding area, and shall incorporate the provisions of Findings 27 through 29.
10. Leachate generation by waste dump #5 shall not cause degradation of waters of the state. If leachate generation causes degradation, then the Discharger shall immediately cease the discharge of waste and shall notify the Regional Water Board in writing within seven days. Notification shall include a timetable for remedial action. Discharge of wastes to waste dump #5 shall not resume until the Regional Water Board has determined that there is no further threat to water quality.
11. Reclamation of the roads, portal area, and waste dump #5 shall begin within 60 days after completion of underground mining. The closure of waste dump #5 shall be under the direct supervision of a California registered civil engineer or certified engineering geologist.
12. The post-closure maintenance period shall end when the Regional Water Board determines that the water quality aspects of reclamation are complete and waste no longer poses a threat to water quality.

Protection From Storm Events

13. All structural BMPs for the site shall be designed, constructed, and operated to prevent inundation or washout due to flooding events with a 10-year return period.
14. All site precipitation and drainage control systems shall be designed, constructed, and maintained to accommodate the anticipated volume of precipitation and peak flows from surface water runoff under 10-year, 24-hour precipitation conditions.
15. Annually, prior to the anticipated rainy season, any necessary erosion control measures shall be implemented, and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent

erosion or flooding of the site. Reports shall be submitted as described in the Monitoring and Reporting Program.

16. To comply with federal regulations for stormwater discharges promulgated by the U.S. EPA, the Discharger shall maintain coverage under the General Industrial Permit and shall conduct the monitoring and reporting as required therein.

C. RECEIVING WATER LIMITATIONS

1. The Discharger shall maintain a surface water monitoring program that complies with Water Quality Order No. 97-03-DWQ for Discharges of Storm Water Associated with Industrial Activities (General Industrial Permit) and the site specific SWPPP. The analytical parameters, monitoring points, and implementation schedule are defined in the SWPPP. The SWPPP, and any necessary amendments, shall apply during the active life of the site, the closure period, the post closure maintenance period, and during any compliance period.
2. For all monitoring points identified in the SWPPP, samples shall be collected and analyzed for the monitoring parameters in accordance with the methods and frequency specified in the General Industrial Permit.

D. GROUNDWATER LIMITATIONS

1. Neither the discharge of waste nor the act of underground mining shall cause groundwater to be degraded.

E. FINANCIAL ASSURANCE

1. The Discharger shall maintain his existing Irrevocable Standby Letter of Credit No. 4135883 (Placer Sierra Bank) to support the obligations of the Discharger as listed in the reclamation plan signed and dated by the Discharger on 5 May 2006. The Discharger shall adjust the cost annually as required under SMARA Section 3804(c) to determine what annual adjustments, if any, are appropriate to the financial assurance amount to account for inflation and any changes in facility design, construction, or operation.

F. PROVISIONS

1. The Discharger shall comply with Monitoring and Reporting Program No. R5-2007-0181, which is incorporated into and made part of this Order.
2. The Discharger shall comply with the Standard Provisions and Reporting Requirements, dated September 2003, which are hereby incorporated into this Order. The Standard Provisions and Reporting Requirements contain important provisions

and requirements with which the Discharger must comply. A violation of any of the Standard Provisions and Reporting Requirements is a violation of these waste discharge requirements.

3. The Discharger shall comply with General Industrial Permit No 97-03-DWQ. This compliance includes, but is not limited to, maintenance of waste containment facilities, precipitation and drainage controls, and surface waters throughout the active life of the waste dumps and the post-closure maintenance period. A violation of the General Industrial Permit is a violation of these waste discharge requirements.
4. The Discharger shall notify the Regional Water Board within **30 days** of any material change in its operations, including cessation of mining activities.
5. The Forest Service, as the administrator of the real property at which the discharge occurs, is ultimately responsible for ensuring compliance with these requirements. Richard Sykora, as the mine claimant and operator, retains primary responsibility for compliance with these requirements, including day-to-day operations and monitoring. Enforcement actions will be taken against the Forest Service only in the event that enforcement actions against Richard Sykora are ineffective or would be futile, or if enforcement against the Forest Service is necessary to protect public health or the environment. As the Forest Service is a public agency, enforcement actions will be taken against it only after it is given the opportunity to use its governmental powers to promptly remedy the violation(s).
6. In the event of any change in control or ownership of the facility, the Discharger must notify the Forest Service and succeeding operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. To assume operation as Discharger 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 and address and telephone number of the persons responsible for contact with the Regional Water Board, and a statement. The statement shall comply with the signatory paragraph of the Standard Provisions 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 by the Executive Officer.
7. Any technical report required herein that involves planning, investigation, evaluation, engineering design, or other work requiring interpretation and proper application of engineering or geologic sciences shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. As required by these laws,

completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

8. For the purpose of resolving any disputes arising from or related to the California Water Code, any regulations promulgated thereunder, these WDRs, or any other orders governing this site, the Discharger, its parents and subsidiaries, and their respective past, present, and future officers, directors, employees, agents, shareholders, predecessors, successors, assigns, and affiliated entities, consent to jurisdiction of the Courts of the State of California.
9. The Regional Water Board will review this Order periodically and may revise requirements when necessary.

I, PAMELA C. CREEDON, 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 December 2007.

PAMELA C. CREEDON, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2007-0181

FOR
RICHARD SYKORA
AND
THE UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE
RED INK MAID AND BIG SEAM MINE
PLACER COUNTY

The Red Ink Maid and Big Seam Mine is an underground lode gold mine. Waste rock created by drilling and blasting inside the mine is transported out of the underground workings to the mine waste dumps. Analysis of mining waste from the site indicates that the waste is classified as a Group C mining waste. Based on waste characterization analysis, the discharge of waste rock from the mine should not pose a significant threat to water quality, other than turbidity.

This Monitoring and Reporting Program (MRP) is intended to eliminate unnecessary monitoring costs, while ensuring that the monitoring program meets the requirements of Title 27 California Code of Regulations (27 CCR). The monitoring program herein represents a 27 CCR Section 20080(b)(2) engineered alternative to the prescriptive standards required for a mining unit under Section 20385(b). This monitoring and reporting program implements the provisions found in the State Water Resources Control Board (State Water Board) Water Quality Order No. 97-03-DWQ (General Industrial Permit) Discharges of Storm Water Associated with Industrial Activities in place of a surface water monitoring plan.

Compliance with this Monitoring and Reporting Program, and with the companion Standard Provisions and Reporting Requirements, is ordered by Waste Discharge Requirements Order No. R5-2007-0181. Failure to comply with this Program, or with the Standard Provisions and Reporting Requirements dated September 2003, constitutes noncompliance with the WDRs and with the Water Code, which can result in the imposition of administrative civil liability.

A. MONITORING

The Discharger shall comply with the monitoring program provisions in accordance with Provisions for Monitoring in the Standard Provisions and Reporting Requirements (2003). All monitoring shall be conducted in accordance with a Sample Collection and Analysis Plan, which include quality assurance/quality control standards, that are acceptable to the Executive Officer.

Method detection limits and practical quantitation limits shall be reported. All peaks shall be reported, including those, which cannot be quantified and/or specifically identified. The Discharger may, with the approval of the Executive Officer, use alternative analytical test methods, including new USEPA approved methods, provided the methods have method detection limits equal to or lower than the analytical methods specified in this Monitoring and Reporting Program.

1. Waste Discharge Monitoring

The Discharger shall monitor all wastes discharged to the mine waste dump in accordance with the methods and frequencies specified in Table 1 and report the results in the Annual Monitoring Summary Report:

Table 1 - Waste Dump #5 Discharge Monitoring		
<u>Parameters</u>	<u>Units</u>	<u>Frequency</u>
Quantity Discharged	tons or cubic yards	Monthly
Estimated Quantity Discharged	tons or cubic yards	Annual
Estimated Remaining Capacity	tons or cubic yards	Annual

2. Stormwater Monitoring

The monitoring and reporting conducted for the Discharger's general industrial permit is sufficient to fulfill the requirements of this section. All stormwater monitoring points shall be sampled and analyzed for monitoring parameters and constituents of concern as indicated and listed in Table 2, below. The points of compliance for stormwater monitoring shall be the points S1, S2, and S3, described in the Dischargers *Revised Storm Water Pollution Prevention Plan for the Big Seam and Red Ink Maid Mining Claims* (SWPPP) dated 4 September 2007.

Table 2 - Stormwater Monitoring		
<u>Monitoring Parameters</u>	<u>Units</u>	<u>Frequency</u>
pH	pH number	Annually
Total Suspended Solids	mg/L	Annually
Specific Conductance	µmhos/cm	Annually
Total Organic Carbon	mg/L	Annually
Blasting Residues (EPA 300 and 350.1)	mg/L	Annually
Diesel and Lubricants (EPA 8015 and 1664)	µg/L	Annually

3. Facility Monitoring

a. Facility Inspection

Annually, prior to the anticipated rainy season, but no later than **30 September**, the Discharger shall conduct an inspection of the facility. The inspection shall assess the status of the surface water drainage controls and the vegetative cover on waste

dumps #1-5, including any necessary measures that establish self-sustaining plant cover that helps to control erosion, reduce infiltration, and provide for increased slope stability. Any necessary construction, maintenance, or repairs shall be completed by **31 October**. By **15 November** of each year, the Discharger shall submit an annual Facility Inspection Report describing the results of the inspection and the repair measures implemented, including photographs of the problem and the repairs.

b. Storm Events

The Discharger shall inspect all precipitation, diversion, and drainage facilities for damage within 7 days following major storm events. The inspection shall assess damage to the drainage control system and waste dumps #1-5 and shall include the Standard Observations contained in section XII.S., of the Standard Provisions and Reporting Requirements. Necessary repairs shall be completed within 30 days of the inspection. The Discharger shall report any damage and subsequent repairs within 45 days of completion of the repairs, including photographs of the problem and the repairs.

B. REPORTING

The Discharger shall report monitoring data and information as required in this Monitoring and Reporting Program and as required in the Standard Provisions and Reporting Requirements. Reports, which do not comply with the required format, will be **REJECTED** and the Discharger shall be deemed to be in noncompliance with the WDRs. In reporting the monitoring data required by this program, the Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. The data shall be summarized in such a manner so as to illustrate clearly the compliance with waste discharge requirements or the lack thereof. A short discussion of the monitoring results, including notations of any water quality violations shall precede the tabular summaries.

C. REQUIRED MONITORING REPORTS AND SUBMITTAL DATES

1. Annual Monitoring Summary Report

By **1 July** of each year, the Discharger shall submit an Annual Monitoring Summary Report covering the previous monitoring year. The report shall include a copy of the annual industrial stormwater report. The annual report shall contain the following information:

- a. A transmittal letter explaining the essential points in each report shall accompany each report. Such a letter shall include a discussion of any violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a detailed

time schedule for correcting the violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the letter of transmittal.

- b. A map or aerial photograph showing the locations of the Monitoring Points.
- c. Laboratory statements of results of all analyses evaluating compliance with requirements.
- d. A summary and certification of completion of all Standard Observations for the Waste Management Unit (WMU), for the perimeter of the WMU, and for the receiving waters.
- e. The quantity and types of wastes discharged and the locations in the WMU where waste has been placed since submittal of the last such report.
- f. A comprehensive discussion of the compliance record, and the result of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements.
- g. A written summary of the monitoring results, indicating any changes made or observed since the previous annual report.

2. Facility Inspection Report

The Facility inspection report required by Section A, 3, a, is due by **15 November** each year.

3. Response to a Release

If the Discharger determines that there is physical evidence, as indicated by water sampling or visual observation, of a release, the Discharger shall immediately notify the Board verbally as to the Monitoring Point(s) and constituent(s), parameter(s), or observations involved, shall provide written notification by certified mail within **seven days** of such determination and implement Response to Release section of the Standard Provisions and Reporting Requirements (2003).

Any person signing a document under this Section 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 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."

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

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

6 December 2007
Date

JSH: 12/6/2007

INFORMATION SHEET

ORDER NO. R5-2007-0181
RICHARD SYKORA AND USDA, FOREST SERVICE
RED INK MAID AND BIG SEAM MINE
PLACER COUNTY

On 27 June 2006, Richard Sykora submitted a Report of Waste Discharge (RWD) for an existing underground lode gold mine. The property where the Red Ink Maid and Big Seam Mine is located is owned by the United States Government and administered by the United States Department of Agriculture, Forest Service (Forest Service). Richard Sykora is the mine claimant and operator and therefore has primary responsibility for compliance with these waste discharge requirements (WDRs), including day-to-day operations, monitoring, and reclamation. The Forest Service is the administrator of the federal land where the discharge occurs, and is ultimately responsible for ensuring compliance with these WDRs and therefore is also named as a Discharger. For the purposes of these WDRs, unless otherwise noted, the term "Discharger" refers to Richard Sykora.

The Discharger has operated the Red Ink Maid and Big Seam Mine for the past 20 years. The two 20-acre mining claims that make up the mine property drain to Mad Canyon, tributary to the Middle Fork of the American River. Gold mineralization occurs within veins in the country rock. The mine consists of approximately 1.75-miles of underground mine workings. Waste-rock inside the mine is loaded and transported out of the underground workings with a underground load-haul-dump vehicle and side cast onto the waste dumps. Ore bearing material will be hand sorted and transported off site. No milling or processing takes place on the surface of these claims.

WASTE DUMPS

There are four existing waste dumps on the site, and a fifth proposed waste dump area. Waste dumps #1-4 have slopes ranging from 55-75%. Lack of capacity and stability issues restrict further placement of waste on waste dumps #1-4. Reclamation of waste dumps #1-4 will help to control erosion, reduce infiltration, and provide for increased slope stability. The proposed waste dump area #5 contains slopes that range between 20-55%. Placement of waste rock in waste dump #5 following the recommendations of the Discharger's consultant is critical to the stability of waste dump #5.

WASTE CHARACTERIZATION

Analysis of existing mining waste from the site indicates that the waste material is not acid generating and is classified as a Group C mining waste. Based on waste characterization, the discharge of waste rock from the site should not pose a significant threat to water quality, other than turbidity.

BACKGROUND

The Discharger's consultant, the Department of Conservation, and Regional Water Board staff have all identified that reclamation of waste dumps #1-4 is necessary to control erosion, reduce infiltration, and provide for increased slope stability. Although the Discharger's reclamation plan extends final reclamation of these waste dumps to 2015, this Order requires completion of reclamation activities by 30 October 2009 to reduce the threat to water quality caused by slope

ORDER NO. R5-2007-0181
RICHARD SYKORA AND USDA, FOREST SERVICE
RED INK MAID AND BIG SEAM MINE
PLACER COUNTY

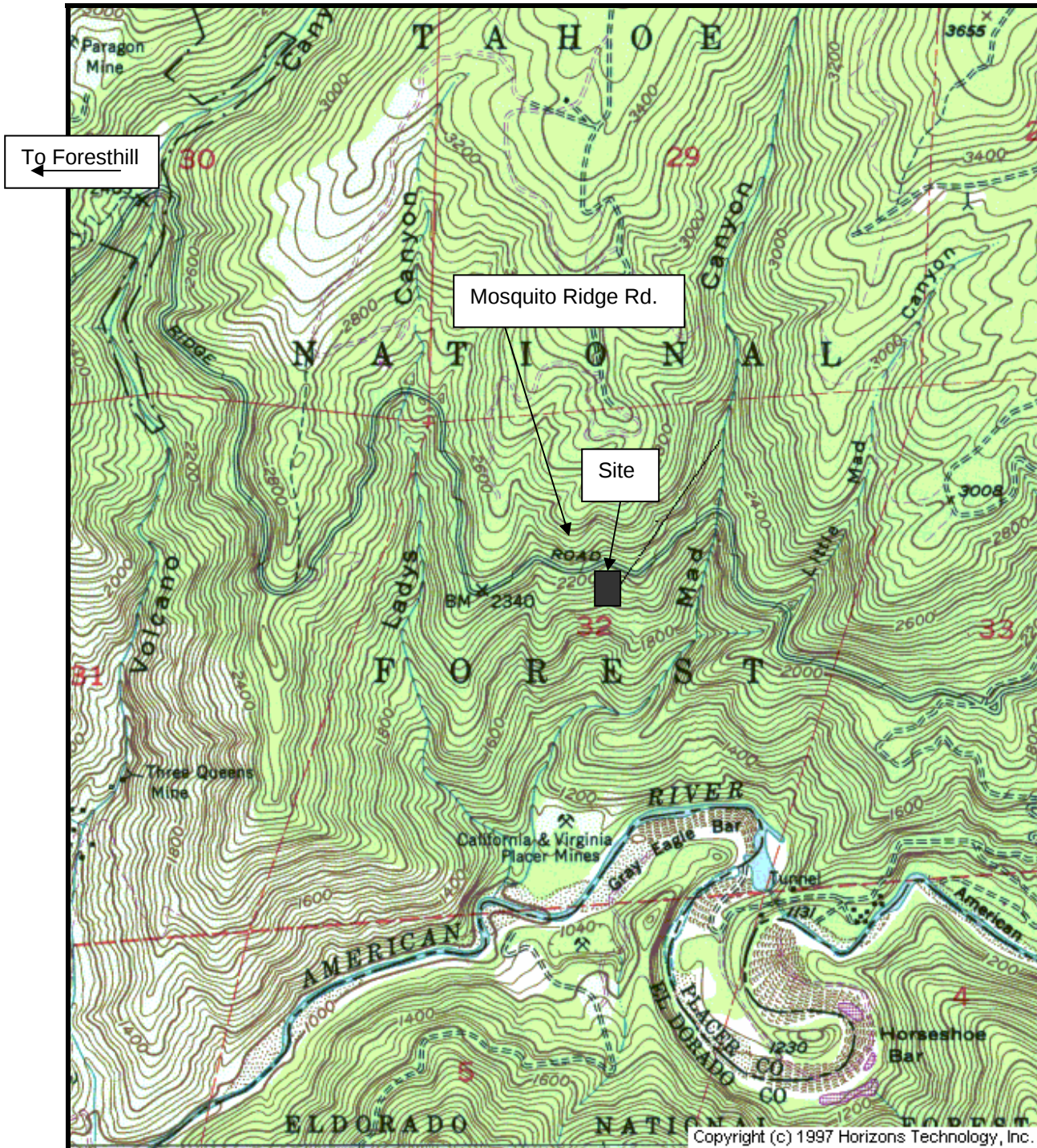
failure of the waste dumps. Reclamation measures such as hydroseeding or hydromulching that establish self-sustaining plant cover to control erosion, reduce infiltration, and provide for increased slope stability are required. This schedule allows two full years to complete reclamation of waste dumps #1-4, totaling approximately two acres.

Because the mine waste has been classified as a Group C waste, this Order contains provisions for a Monitoring and Reporting Program (MRP) that implements provisions found in Water Quality Order No. 97-03-DWQ (General Industrial Permit) Discharges of Storm Water Associated with Industrial Activities in place of a surface water monitoring plan. The MRP represents an engineered alternative to the prescriptive standards required for a mining unit under Title 27. This MRP is intended to eliminate unnecessary monitoring costs, while ensuring that the monitoring program meets the requirements of Title 27.

This Order does not include a groundwater monitoring plan because groundwater beneath the site appears to be limited, fully saturated zones are not present in the soils or other geologic formations, and no groundwater or significant seepage is encountered in the mine. For these reasons, groundwater monitoring is not feasible or practical.

The Discharger has a mining and reclamation plan and related financial assurance approved by Placer County, the lead agency for the project to pay for the costs of closure and post closure maintenance. These WDRs incorporate by reference the Discharger's mining and reclamation plan and approved financial assurance in place of Title 27 Closure and Post-Closure Maintenance Plan and Closure and Post-Closure Financial Assurances. Because the Forest Service, the Department of Conservation, and Placer County are all named on the Discharger's existing financial assurance, the Discharger has requested that the Regional Water Board waive the requirement that adds the Regional Water Board as an alternate payee to the existing financial assurance citing additional costs associated with adding the Regional Water Board to the financial assurance. These WDRs waive that requirement.

ATTACHMENT A



Source: Raster Map USGS 7.5 minute topographic map, Foresthill, California.



SITE LOCATION MAP

WDRs No. R5-2007-0181
 Richard Sykora and Forest Service
 Red Ink Maid and Big Seam Mine
 Placer County

ATTACHMENT B

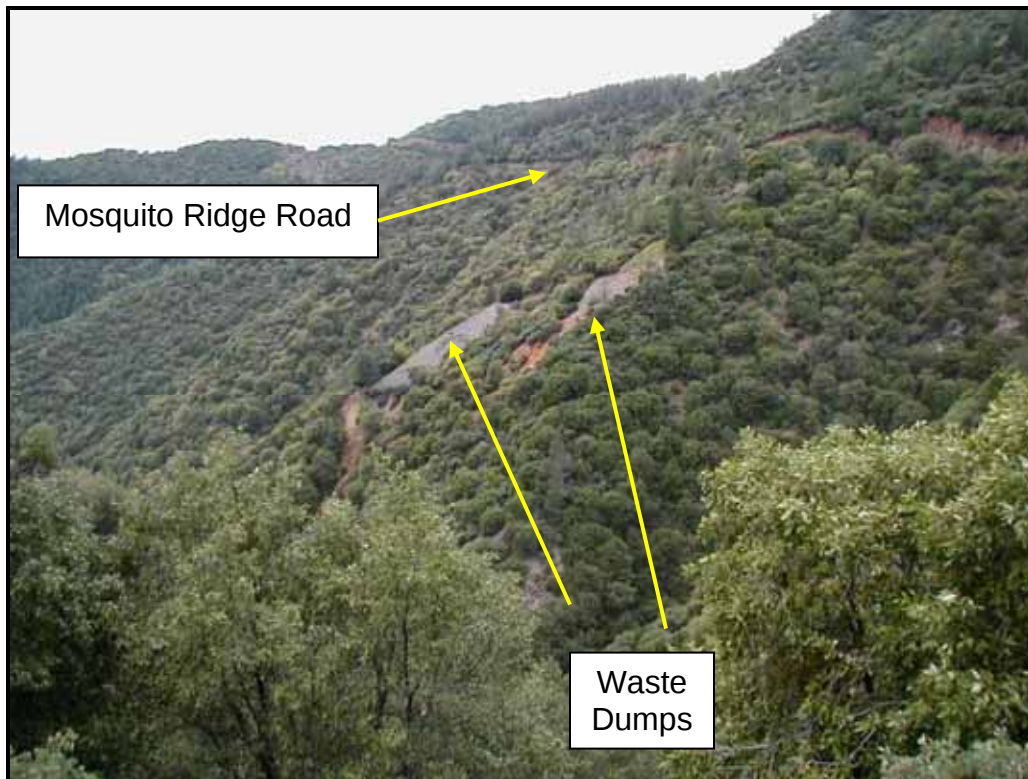


Photo 1. Red Ink Maid Mine Waste Dumps #2 and #4 (Spring 2006).



Photo 2. Slope Failures Waste Dumps #2 and #4.

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Richard Sykora and USDA Forest Service
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