CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5 2011-XXXX

WASTE DISCHARGE REQUIREMENTS
FOR

SHASTA GOLD CORPORATION,
AND
FRENCH GULCH (NEVADA) MINING CORPORATION,

TAILINGS AND WASTE ROCK DISPOSAL FACILITIES
WASHINGTON MINE
SHASTA COUNTY

The California Regional Water Control Board, Central Valley Region, ("Central Valley Water Board" or "Board") finds that:

1. Shasta Gold Corporation and its subsidiary, French Gulch (Nevada) Mining Corporation, submitted a Report of Waste Discharge ("ROWD"), dated 30 September 2009, for mill tailings and waste rock disposal facilities at the Washington Mine and mill, an underground gold mine about 2 miles west of French Gulch, Shasta County. Shasta Gold Corporation and French Gulch (Nevada) Mining Corporation are hereafter collectively referred to as the "Discharger".

2. The Discharger owns and operates the Washington Mine and mill which is comprised of unpatented and patented claims totaling 1,825 acres, in Sections 7, 17, and 18, Township 33 North, Range 7 West, MDB&M as shown in Attachment A which is incorporated herein and made part of this Order. The unpatented claims are on federal land administered by the U.S. Department of Interior, Bureau of Land Management ("BLM"). The current tailings and waste rock disposal areas, and the proposed Group B tailings disposal facility, are entirely on patented claims comprised of Shasta County Assessor's Parcel Numbers 046-340-002 and 046-340-003.

3. The disposal of tailings at the mine is currently regulated, in part, by Order R5-96-289 which allowed for the disposal of mine tailings into unlined ponds at the mill and then moved to an unlined disposal area on patented claims. Order R5-96-289 is inconsistent with current regulations and policies for regulation of mining waste, does not reflect current operations and discharges, and is not adequately protective of water quality.

FACILITY OPERATIONS

4. Ore and waste rock are removed from the underground mine with waste rock being placed in a designated disposal area. Ore is processed through a mill where the particle

size is reduced and gold is separated with gravity jigs and finally through flotation cells. In the flotation cells, chemical reagents are added to allow the gold bearing particles to adhere or "float" on bubbles which are skimmed from the processing solution. The processing solution is recycled back through the mineral recovery system. The spent material, referred to as tailings, is dried through a filter screen and stockpiled adjacent to the mill until they can be transported to the tailings disposal facility. The mill circuit is a closed loop system with no discharge. Reagents used in the mill site include copper sulfate, methyl isobutyl carbinol, and potassium xanthate.

5. Previous mining operations accumulated mill tailings in a pile about 300 by and 220 feet totaling approximately 20,000 yd^3. An additional 25,000 yd^3 may be produced over the next three years. Future operations may include mixing the tailings with Portland cement and using it as a paste backfill to fill voids in previously mined areas. The paste backfill process is beyond the scope of this Order and a new ROD and revised WDRs will be required to utilize this disposal method.

6. In 2008, the previous owner Bullion River Gold Corp and French Gulch (Nevada) Mining Corporation excavated the New Adit, a decline 1,533 feet in length, to reach newly-discovered veins. This generated about 21,250 yd^3 of loose waste rock, some with significant mineralization that requires disposal in an engineered containment facility.

WASTE CHARACTERIZATION

7. The California Code of Regulations, title 27 ("Title 27"), section 22480, classifies mining wastes in three Groups, A, B, and C as follows:

> Group A wastes must be managed as hazardous waste pursuant to Chapter 11 of Division 4.5, of Title 22, California Code of Regulations (Title 22 CCR), provided Regional Water Board staff finds that such mining wastes pose a significant threat to water quality. Group B mining wastes are either; wastes that consist of or contain hazardous wastes that qualify for a variance under Title 22 CCR, provided Regional Water Board staff finds that such mining wastes pose a low threat to water quality; or mining wastes that consist of or contain non-hazardous soluble pollutants of concentrations that exceed water quality objectives (WQOs) for, or could cause, degradation of waters of the state. Group C wastes are wastes from any discharge that would be in compliance with the applicable water quality control plan, including WQOs other than turbidity.

8. Title 27 further provides*…*

> In reaching decisions regarding classification of mining waste as Group B or Group C, Regional Water Board staff can consider the following factors: (1) whether the waste contains hazardous constituents only at low concentrations; (2) whether the waste has no or low acid generating potential; and (3) whether, because of its intrinsic properties, the waste is readily containable by less stringent measures.

9. The mill tailings are fine grained, dense, cohesive, and of low permeability. Analyses of the tailings has shown they contain significant arsenic, on occasion exceeding the

hazardous waste criteria. However, data shows the tailings have little or no acid generating potential with a neutralization potential to acid generation potential ratio well above 3. Analyses of the tailings using distilled water as the extractant, simulating rainfall, shows arsenic in the leachate below 1 mg/l. Based on this information the mill tailings are classified as a Group B waste.

10. Waste rock from the mine-that rock which does not contain economic concentrations of minerals-can still be highly mineralized and contain concentrations of waste constituents, mainly arsenic, that exceed the hazardous waste criteria. The waste rock is commonly larger grained than the tailings. Mineralized waste rock with elevated constituents that may pose a threat to water quality is classified as a Group B mining waste and must be placed in an engineered containment facility. Non-mineralized waste rock, or waste rock with low concentrations of natural mineral constituents that do not pose a threat to water quality is classified as a Group C mining waste and may be placed in the Group C disposal area. To distinguish between Group B and Group C waste rock, monitoring of the waste rock is required as part of the Monitoring and Reporting Program attached to this Order.

SITE DESCRIPTION

11. The Washington Mine is in the Klamath Mountain Geological Province, a northwest-to-southeast trending belt of faulted and folded Paleozoic sedimentary and metamorphic rocks, and Cenozoic intrusive igneous rocks. Local formations include the Copley Greenstone, Bragdon, Birdseye Porphyry and Quartz Porphyry Intrusives, alluvium, and colluvium. The Copley Greenstone Formation is comprised of metamorphosed andesites and marine volcaniclastic sedimentary rocks. The Bragdon Formation is mostly siliceous shale, slate, and mudstone, with inter-bedded sandstone and conglomerate. Bedding orientations in the Copley and Bragdon Formations are highly variable. Birdseye Porphyry and Quartz Porphyry Intrusives crosscut the Copley and Bragdon along high-angle reverse faults that trend generally east-west, and northwest-southeast. Alluvium and colluvium are largely debris- and earth-slide deposits, and soils. The waste disposal areas overlie the Bragdon, Birdseye Porphyry Intrusives, and saprolitic soils derived from weathering of the intrusives.

12. Faults within the mine area show no evidence of surface displacement within 1.6 million years. Between 1800 and 2006, 53 earthquakes within 100 miles of the disposal areas had moment magnitudes greater than 5.0 with three greater than 6.5. In 1998, an earthquake with a moment magnitude of 5.2 occurred with an epicenter 11 miles east. The local bedrock acceleration at the disposal area was estimated approximately 0.14g for a maximum probable earthquake.

13. In 1852, following discovery of a gold-bearing quartz vein at grade, the Washington Mine began operations as a sluicing operation of decomposed bedrock. From 1855 to 1865, operations expanded underground along veins as shallow vertical shafts, horizontal

stopes and drifts. Over the years several following decades, deeper adits and exploration tunnels through non-producing rock were developed. In 1869, on-site ore processing began with a stamp mill. In 1938, the stamp mill ceased, and ore processing was upgraded to crushing, ball-milling, gravity concentration, and froth flotation.

14. The Washington Mine is a complex of mine portals, tunnels, and underground workings within an established gold mining district with numerous historical and active mines within five miles. Within the district, ore veins are mainly hydrothermal quartz derived from intrusive rocks, with accessory metal sulfides including pyrite, arsenopyrite, sphalerite, and galena. Gold is associated with arsenopyrite and galena.

15. The tailings and waste rock disposal areas are in forest clearings at elevations ranging about 2,500 to 2,700 feet above mean sea level on a slope of about 20%. Slopes downhill of the disposal areas are generally forest-covered, and range 40% to 80%. Run-off drains east toward the Right Fork of French Gulch, and south toward Scorpion Gulch.

16. Average annual rainfall is 66 inches, and mostly occurs between October and April. Average annual evaporation is 70 to 80 inches per year, and mostly occurs between April and September. The predicted 100-year, 24-hour storm is 10.98 inches.

17. Local land uses are mining, timber, and recreation. A residence is about one mile south of the disposal areas, on Tom Green Road. The Federal Emergency Management Agency does not currently issue flood insurance maps for unincorporated areas of Shasta County, however the disposal areas are not within a 100-year flood plain.

18. Natural springs are about 0.8 miles north and 0.9 miles west of the disposal areas however due to their location upgradient and across a major drainage, they cannot be impacted by current mining operations.

SURFACE WATER AND GROUND WATER CONDITIONS

19. Surface drainage from the disposal areas flows about 1,600 feet east into French Gulch and 1,300 feet south into Scorpion Gulch. Scorpion Gulch is tributary to French Gulch. Both are tributary to Clear Creek, which is in turn tributary to Whiskeytown Reservoir. Scorpion Gulch and French Gulch are within the the French Gulch Hydrologic Sub Unit (524.64) in the Clear Creek Hydrologic Area.

20. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins,* Fourth Edition, revised September 2009 ("Basin Plan") designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives. The Basin Plan at page II-2.00 states that 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 Scorpion Gulch or French Gulch, but does identify present and potential uses for Whiskeytown Reservoir, to which

Scorpion Gulch and French Gulch, via Upper Clear Creek, are tributary. These beneficial uses are as follows: municipal and domestic supply; agricultural supply, including stock watering; hydropower generation; water contact recreation; non-contact water recreation, including aesthetic enjoyment; warm freshwater habitat; cold freshwater habitat; warm spawning, reproduction, and/or early development; and wildlife habitat. The Basin plan considers groundwater at the project site potentially suitable for municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.

21. The I-Level Adit is approximately 400 feet below grade surface under the disposal areas and likely behaves as a local groundwater drain fed by fracture flow.

22. Both local surface water and groundwater have impaired beneficial uses as domestic and municipal potable water supplies due to elevated arsenic. The elevated arsenic concentrations likely correlate with long-term local gold mining and may contain a significant natural component. It is unknown exactly what the natural and/or non-point source contribution of arsenic to surface and ground water is. The historic and current mining activity, by exposing minerals to oxygen and providing drainage from the mine portals, contributes to the soluble metals in the waters. The Central Valley Water Board and BLM are evaluating the natural and portal discharges throughout the watershed to provide additional information on metals loading to surface waters.

WASTE MANAGEMENT UNIT DESIGN

23. The Discharger proposes to close the existing unlined mill tailings disposal site and move the existing tailings to a new tailings disposal facility constructed to Title 27 standards for a Group B mining waste. This proposal is appropriate due to current impacts to ground water and surface water (many which are not related to the current mining activities), site conditions-including native geologic materials with open fractures below thin soils, and data showing leachate and/or storm water runoff collected in a pond immediately below the current tailings pile exceeds the water quality objectives for arsenic.

24. Regulations set forth in Title 27 establish prescriptive standards for construction of waste management units (WMUs) for containment of mining wastes. Engineered alternatives to prescriptive standards may be considered pursuant to Title 27, section 20080, provided that the Discharger demonstrates

> …(1) The construction of the prescriptive standard is not feasible as provided in Subsection c of this section; (2) There is a specific engineered alternative that: (a) is consistent with the performance goal addressed by the particular construction or prescriptive standard, and (b) provides equivalent protection against water quality impairment.

25. The prescriptive liner for a Group B mining waste consists of a single 12-inch compacted clay liner with a maximum permeability of $1X10^{-6}$ cm/sec. The Discharger proposes an engineered alternative liner system for the Group B mining waste that meets or exceeds

the performance standards and provides equivalent or better protection against water quality. The liner design from the bottom up, is as follows: a base layer comprised of compacted and conditioned native soil, a 60-mil, textured on both sides, high density polyethylene (HDPE) flexible membrane liner, a 270-mil geo-composite drainage layer (base only), and a 2-foot lift of selected mill tailings free of rigid objects. A leachate trench running the length of the WMU will accommodate a 3-inch HDPE perforated pipe, surrounding leach rock, and an 8-ounce non-woven geo-textile, in turn overlain by a blanket leachate collection and recovery system (LCRS) comprised of the geo-composite drainage layer. The LCRS will drain to an above ground tank where the leachate can be removed and processed through the mill and water treatment system. During operations a temporary cover over the tailings during the winter period will reduce the volume of leachate generated.

26. To close the existing tailings disposal site, the Discharger proposes to remove mill tailings over the next four dry seasons, beginning one year after construction of the new tailings Group B WMU.

27. The Discharger proposes three shallow groundwater monitoring wells near the perimeter of the Group B WMU to sample potential perched groundwater in weathered bedrock. Monitoring requirements for these wells is included in the Monitoring and Reporting Program that is a part of this Order.

28. For potential Group B waste rock contained within the existing Group C waste rock disposal facility, the Discharger proposes field screening and segregating for metal sulfide minerals under the direct supervision of a qualified California Professional Geologist. Waste with excessive metal sulfides will go into the Group B WMU. While staff finds the proposal appropriate, such screening may not be sufficient to address documented spraying of mine drainage into the waste rock. Therefore, as part of this Order the Monitoring and Reporting Program will require appropriate further sampling of waste rock.

29. The Group C mine waste disposal area will consist of a graded surface with a series of benches, approximately twelve feet in width, each at 10% slopes counter to local topography. Gabions, drainage pipes, and geo-textile erosion control layers may further stabilize slopes if necessary. Overlying waste rock at final grades range 50% to 40% and roughly parallel underlying native topography.

CLOSURE, POST-CLOSURE MAINTENANCE, AND FINANCIAL ASSURANCE

30. The ROWD includes a preliminary Closure and Post-closure Maintenance Plan for the new Group B WMU. The preliminary closure cap will include, from bottom to top, a minimum 24 inches of smooth-rolled tailings to appropriate slope, a 60-mil HDPE double-textured liner, a 200-mil geocomposite drainage layer, a minimum 12 inches of decomposed porphyry, and 6 to 12 inches of inert, non-mineralized waste rock as an erosion-resistant layer. A preliminary Closure and Post-closure Maintenance Plan for the Group C WMU was not included in the ROWD. This Order contains requirements for the Discharger to provide a cost estimate and submit financial assurances for closure and post-closure maintenance of the Group B and Group C WMUs.

31. On 31 January 2006, French Gulch (Nevada) Mining Company submitted a draft reclamation plan update that, in part, describes mill tailings disposal but not specifically the proposed Group B WMU. In order to comply with the Surface Mining And Reclamation Act, the Shasta County Planning Commission will require the an update of the current reclamation plan to reflect the proposed operations.

CEQA CONSIDERATIONS

32. On 23 August 1996, the Planning Commission of Shasta County adopted Resolution Number 97-016, a mitigated negative declaration of a proposed reclamation plan for Assessors' Parcel Numbers 046-340-002 and 046-340-003. The related Initial Study and Reclamation Plan described, in part, the disposal of mill tailings and waste rock.

OTHER LEGAL REFERENCES

33. This Order incorporates and implements:

    a. The Basin Plan,

    b. The prescriptive standards and performance goals contained in Chapters 1 through 7 of Title 27, effective 18 July 1997, and subsequent revisions; and

    c. State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California.

34. Water Code section 13267(b) states*:*

    > In conducting an investigation specified in subdivision (a), the Regional 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.

35. The monitoring and reporting program required by this Order (Monitoring and Reporting Program R5-2011-_____, attached) is necessary to assure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

PROCEDURAL REQUIREMENTS

36. 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.

37. All of 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.

38. The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge, and has provided them with an opportunity for public hearing and an opportunity to submit their written views and recommendations.

39. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267, that Order R5-96-289 is hereby rescinded, and that Shasta Gold Corporation and French Gulch (Nevada) Mining Corporation, their agents, successors, and assigns, in order to meet the provisions of Division 7 of the Water Code and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. The discharge of “hazardous waste” or “Group A” mining waste at this facility prohibited. For the purposes of this Order, the terms “hazardous waste”, “Group A”, “Group B”, and “Group C” mining wastes are as defined in Title 27.

2. The discharge of any waste other than mining wastes into the WMUs is prohibited. Prohibited wastes may include, but are not limited to, oil, grease, solvents, other petroleum products, and toxic and hazardous materials.

3. The discharge of wastes outside of a WMU or portions of a WMU specifically designed for their containment is prohibited except as otherwise permitted under additional Central Valley Water Board orders.

4. The discharge of mine drainage into a WMU is prohibited.

5. The discharge of mill tailings to the unlined tailings disposal area beyond one year from the date of adoption of this Order is prohibited.

B. DISCHARGE SPECIFICATIONS

General Specifications

6. Wastes shall only be discharged into, and shall be confined to, the WMU specifically designed for their containment.

7. The Discharger shall not cause a condition of pollution, contamination, or nuisance as defined by Water Code section 13050.

8. The existing unlined mill tailings disposal area will be closed within four years of the adoption of this Order.

WMU Construction

9. All work shall be performed under the direct supervision of a California Professional Civil Engineer or Certified Engineering Geologist.

10. The Discharger may construct the lined Group B WMU in increments as needed to contain the volume of tailings predicted to be generated over the next one or two years.

11. The Group B WMU liner system shall consist of, from the bottom up:

    a. a engineered subgrade comprised of moisture conditioned native soil, compacted to a minimum 90 percent of maximum dry density, and smooth rolled,

    b. a 60 mil, textured on both sides, HDPE flexible membrane liner,

c. a 270 mil geocomposte drainage layer on the bottom of the WMU,

d. two feet of selected mill tailings free of rigid objects or other items which may penetrate the underlying liner system

12. Materials used to construct the liners shall have appropriate physical and chemical properties to ensure containment of the discharged wastes over the operating life, closure, and post-closure maintenance period of the WMU.

13. The Group B WMU shall be constructed to withstand earthquakes with a ground acceleration of 0.22 g, that acceleration that is predicted from the Maximum Credible Earthquake.

14. All leachate and contact water (that precipitation that has fallen on, but not infiltrated through the tailings) derived from the Group B WMU shall be drained and captured in an appropriate lined leachate collection and recovery system ("LCRS"). The LCRS shall be constructed of materials with appropriate physical and chemical properties to ensure containment of discharged wastes and required transmission of leachate over the operating life, closure, and post-closure maintenance period of the Group WMU.

15. Leachate will be collected in the geocomposite drainage layer and directed to a trench in the bottom of the unit containing a three inch HDPE perforated pipe. Leachate from the pipe will be collected in an above ground tank where it will be periodically removed and returned to the mill and used in the milling process.

16. The LCRS shall be designed, constructed, and maintained to collect twice the anticipated daily volume of leachate generated by the Group B WMU and to prevent the buildup of hydraulic head on the underlying liner at any time.

17. Leachate generated shall not exceed design requirements for the Group B WMU. If leachate exceeds design requirements, the Discharger shall immediately cease the discharge of waste, and shall notify the Central Valley Water Board **within seven days**. Notification shall include a time schedule for appropriate remedial action to repair the WMU or otherwise control leachate.

18. The Group C WMU shall be constructed to assure slopes will not fail during ground acceleration of 0.14g, that acceleration expected from the Maximum Probable Earthquake.

19. Wastes shall be placed in the Group C WMU in a manner that reduces erosion and controls drainage to prevent the discharge of sediment to surface waters.

Protection from Storm Events

20. For the WMUs, and related excavation and grading operations, all precipitation and drainage control systems shall be designed, constructed, and maintained to accommodate the anticipated volume of precipitation and peak flows from surface run-off under 25-year, 24-hour precipitation.

21. The Discharger is currently covered by State Water Resources Control Board Order 97-03-DWQ, *General Permit for Discharges of Storm Water Associated with Industrial Activities*. To comply with federal regulations for storm water discharges promulgated by U.S. EPA, the Discharger shall continue to maintain and comply with Order 97-03-DWQ. If the area of un-reclaimed land or un-stabilized land for construction of the WMU exceeds 1 acre at any given time, the Discharger shall seek coverage under the State Water Resources Control Board Order 2009-0009 DWQ, *General Permit for Discharges of Storm Water Associated with Construction Activity*, and shall conduct the monitoring and reporting as required therein.

22. Annually, prior to the anticipated wet season, any necessary erosion control measured shall be implemented, and any necessary construction, maintenance, or repairs of precipitation and drainage controls shall be completed to prevent flooding, erosion, or slope failure.

WMU Closure

23. The closure of the WMU shall be under the direct supervision of a California Professional Civil Engineer or Certified Engineering Geologist.

24. The final closure cap on the Group B WMU shall be comprised, from the bottom up, of:
    a. a minimum 24 inches of mill tailings, smooth-drum rolled and sloped to no less than 3 percent and no more than 3 to 1 grade,
    b. a 60 mil, textured on both sides, HDPE flexible membrane liner,
    c. a 200 mil geocomposite drainage layer
    d. a minimum 12 inches of decomposed native porphyry
    e. 6 to 12 inches of inert, non-mineralized waste rock as an erosion-resistant layer or other erosion-resistant layer approved by the Executive Officer

25. A preliminary Closure and Post-closure maintenance Plan for the Group C WMU shall be submitted **within one year of the adoption of this Order**. The Group C WMU shall be closed in a manner that reduces the potential for erosion and sediment transport to surface waters including an erosion resistant cover and storm water

drainage facilities.

26. The ROWD contained a description of the closure of the unlined tailings disposal area, referred to as WMU No. 2 in Order R5-96-289. Non-mineralized waste rock which may exist within the current tailings disposal area and upon testing approved by the Executive Officer, is classified as a Group C mining waste will be pushed down-slope to the existing waste rock disposal area. Following removal of the existing Group B mining waste, the Discharger will collect appropriate confirmation soil samples for comparison with local background.

C. GROUNDWATER LIMITATIONS

27. Neither construction of, discharge of waste into, closure of, nor post-closure maintenance of, the WMUs shall cause or allow groundwater to be degraded.

28. The Discharger shall comply with the detection monitoring program provisions of Title 27 for groundwater, surface water, and the unsaturated zone, and in accordance with Monitoring and Reporting Program ____. **Within 90 days of adoption of this Order**, the Discharger shall submit a workplan for installation of a detection monitoring program for the Group B and Group C WMUs. The wells shall be installed **prior to the discharge of waste to the Group B WMU**. The monitoring system for the Group B WMU shall include, at a minimum, three ground water monitoring wells, one of which is capable of obtaining ground water samples unaffected my mining waste disposal from either the Group B WMU, Group C WMU, or the unlined tailings disposal area. A minimum of two monitoring wells shall be installed downgradient of the Group B WMU and a minimum of one monitoring well downgradient of the Group C WMU. The final monitoring system will be comprised of a total of at least four wells.

29. The Discharger shall provide Regional Water Board staff a minimum of **one week** notification prior to commencing any field activities related to the installation, repair, or abandonment of monitoring devices.

30. The Discharger shall comply with the Water Quality Protection Standards as specified in this Order, Monitoring and Reporting Program ____, and *Standard Provisions and Reporting Requirements for Waste Discharge Requirements for Nonhazardous Solid Waste Discharges Regulated by Title 27 and/or Subtitle D (*Cal. Code Regs., tit. 27, § 20005 et seq. and 40 C.F.R. § 258), dated April 2000 ("Standard Provisions") which are hereby incorporated into this Order.

31. The Discharger shall submit a Water Quality Protection Standard Report within **two years** of adoption of this Order. The Water Quality Protection Standard Report shall include the information described in Section C 1 **Water Quality Protection Standard**

and Compliance Period, Water Quality Protection Standard Report of the attached Monitoring and Reporting Program R5-2011-XXXX

32. The Water Quality Protection Standard for organic compounds that are not naturally occurring and not detected in background groundwater samples shall be taken as the detection limit of the analytical method used (i.e., U.S. EPA methods 8260B and 8270). The repeated detection of one or more non-naturally occurring organic compounds in samples above the Water Quality Protection Standard from detection monitoring wells is potential evidence of a release from the facility.

33. The concentrations of the constituents of concern in waters passing the Point of Compliance shall not exceed the concentration limits established pursuant to Monitoring and Reporting Program ____.

34. For each monitoring event, the Discharger shall determine whether the facility is in compliance with the Water Quality Protection Standard using procedures specified in Monitoring and Reporting Program ____ and Title 27, section 20415(e).

35. The Discharger shall maintain an approved Sample Collection and Analysis Plan. The Sample Collection and Analysis Plan shall at a minimum include:

- Sample collection procedures describing purging techniques, sampling equipment, and decontamination of sampling equipment;
- Sample preservation information and shipment procedures;
- Sample analytical methods and procedures;
- Sample quality assurance/quality control (QA/QC) procedures; and
- Chain of Custody control.

D. FINANCIAL ASSURANCE

36. The Discharger shall update their financial assurances for closure, and post-closure maintenance of the site to include the Group B WMU by **30 April 2012**. Submittal of a Reclamation Plan and financial assurances to the Shasta County Department of Resource Management, Planning Division and the California Department of Conservation, Office of Mine Reclamation as required by the Surface Mining and Reclamation Act shall generally be adequate to meet this requirement. The Discharger shall adjust the costs annually to account for inflation and any changes in facility design, construction, or operation.

37. Prior to discharge of mine waste into the Group B WMU and thereafter by **30 August of each year,** the Discharger shall submit updated cost estimates and a demonstration of assurances of financial responsibility for initiating and completing *corrective action for all known or reasonably foreseeable releases* from the Group B and Group C WMUs and mill. Financial assurances are already required for closure and corrective action for discharges from the underground workings in Order R5-2010-0052 which regulates discharges from the mine portals. The Discharger shall provide the assurances of financial responsibility as required by Title 27, Division 2, Subdivision 1, Chapter 6. The assurances of financial responsibility shall provide that funds for corrective action shall be available to the Central Valley Water Board upon the issuance of any order under Division 7 of the Water Code. The Discharger shall adjust the cost annually to account for inflation and any changes in facility design, construction, or operation that may affect the reasonably foreseeable releases.

E. PROVISIONS

38. The Discharger shall comply with the Standard Provisions, which are hereby incorporated into this Order. The Standard Provisions 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.

39. The Discharger must comply with Monitoring and Reporting Requirements Order R5-2011-_____, which is attached herein and made part of this Order. Compliance includes, but is not limited to, monitoring of waste, surface water and groundwater throughout the active life of the WMU and post-closure maintenance period. A violation of Monitoring and Reporting Requirements R5-2011-_____ is a violation of this Order.

40. The Discharger shall notify Central Valley Water Board staff **within 24 hours** of any discharge, flooding, equipment failure, slope failure, or other change in site conditions that would impair closure of the existing mill tailings disposal area, construction, operation or monitoring of the Group B WMU, or related precipitation and drainage controls.

41. The Discharger shall maintain legible records at the facility of volume and type of waste discharged to the WMUs. The Discharger shall make such records available for review by representatives of the Central Valley Water Board and State Water Resources Control Board until the beginning of the post-closure maintenance period.

42. Within **six months of the adoption of this Order**, the Discharger shall submit for approval of the Executive Officer a Sampling and Analyses plan to monitor and characterize the waste rock to allow for determination if the waste rock is classified as

a Group B or Group C waste. This program will be an on-going program for as long as waste rock is produced at the site.

43. The Discharger shall complete the following tasks by the required dates:

TASK	DATE DUE
Submit workplan for installation of a ground water detection monitoring system for the Group B and Group C WMUs.	**Within 90 days of adoption of this Order**
Installation of a ground water detection monitoring system for the Group B and Group C WMUs	**Prior to discharge of waste into the Group B WMU**
Submit Sampling and Analyses Plan for monitoring and characterizing waste rock as Group B or Group C waste.	**Within six months of adoption of this Order.**
Submit cost estimates and financial assurances for closure and post-closure maintenance to include the Group B WMU.	**By 30 April 2012**
Submit updated financial assurances for corrective action for cleanup of foreseeable releases from the Group B and Group C WMUs and mill area.	**By 3 August of each year**
Submit Water Quality Protection Standard Report	**Within two years of adoption of this Order**
Remove existing tailings from current disposal area and place in Group B WMU	**April 2015**

44. The Discharger shall provide proof to the Central Valley Water Board **within sixty days after completing final closure** that appropriate documents on file at the County Recorder's Office will notify a potential land purchaser that the property contains WMUs with Group B and Group C mining wastes, land-use options are restricted in accordance with a post-closure maintenance plan, and in the event that the Discharger defaults on either the post-closure maintenance plan or any corrective actions, responsibility for carrying out such work would fall on the current property owner.

45. In the event of any change in control or ownership of the Washington Mine complex, the Discharger must notify the succeeding owner or operator of the existence of this

Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board Redding Office. To assume operation as a 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, address, and telephone number of persons responsible for contact with the Central Valley Water Board, and a statement complying with the signatory paragraph of the Standard Provisions that states 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.

46. For the purposes 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.

47. The Central Valley Water Board will review this Order periodically and revise requirements when necessary.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality
or will be provided upon request.

I, Pamela Creedon, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the Central Valley Regional Water Quality Control Board, on _____.

_____
PAMELA CREEDON, Executive Officer

EJR/PVW