CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2012-0057

WASTE DISCHARGE REQUIREMENTS
FOR
CALIFORNIA NATURAL RESOURCES CORPORATION,
AND
MAURICE ALTSHULER AND BARTLETT BURNAP,

MINING, PROCESSING, AND RECLAMATION
FRENCH CORRAL MINE
NEVADA COUNTY

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

1. California Natural Resources Corporation (facility owner and operator) and Maurice Altshuler and Bartlett Burnap (landowners), collectively referred to as "Discharger", own and operate the French Corral Mine (the "Facility") located on the North San Juan Ridge above the South Yuba River, between French Corral and Birchville, in the southwestern quarter of Section 24 and a portion of the western half of Section 25, Township 17 North, Range 7 East of the United States Geological Survey (USGS) French Corral 7.5-minute quadrangle map, as shown in Attachment A, which is incorporated herein and made part of this Order by reference. The facility is a gold mine regulated by the Board under the authority of the Water Code and Title 27 of the California Code of Regulations ("Title 27").

2. The Facility is on a 65-acre property at 21235 Pleasant Valley Road, North San Juan California as shown in Attachment B, which is incorporated herein and made part of this Order by reference. The Facility is comprised of Assessor's Parcel Numbers (APN) 30-090-07, and portions of APNs 30-510-20 and 30-510-22.

3. On 15 March 2012, the Discharger submitted a Report of Waste Discharge (ROWD) for the Facility. The information in the ROWD has been used to develop these waste discharge requirements (WDRs). The ROWD and supporting documents contain information related to construction, operations, and closure of the Facility.

4. Based on the characterization described in Findings Nos. 37-44 of these WDRs, mining waste at the Facility is classified as Group C mining waste. Therefore, all mining units must meet the minimum construction standards of Title 27, section 22490 and closure standards in Title 27, section 22510.

5. The proposed waste management units (Mining Units) for the treatment, storage, or disposal of mining waste are described in Table 1:

Table 1: Mining Units

Unit	**Description of Location**
Mining Unit-1	Tailings Placement Area
Mining Unit-2	Phase 1C Mining Area

Mining Unit-3	Area between Phase 1C Mining Area and Phase 1A and 1B Mining Area
Mining Unit-4	Phase 1A and 1B Mining Area

6. This Order, the February 2009 Standard Provisions and Reporting Requirements (SPRRs) for Mining Wastes (hereby incorporated by reference), and Monitoring and Reporting Program (MRP) R5-2012-0057 implement the applicable regulations for discharges of mining waste to land. Monitoring and reporting requirements are included in MRP R5-2012-0057 and in the SPRRs. Any site-specific changes to a requirement in the SPRRs are included in the applicable section (A through E) of these WDRs, and the requirement in these WDRs supersedes and replaces the requirement in the SPRRs.

PREVIOUS MINING ACTIVITY

7. Hydraulic mining for placer gold was performed at the Facility from the middle 1850's to the 1880s. The buried Tertiary channel of the Yuba River runs in a southerly direction from North San Juan through the French Corral Mining District. The channel reaches 1,000 feet in width and the gravels average 150 feet in depth. It is estimated that thirty two million cubic yards of gravels were mined in the French Corral district during the period of hydraulic mining.

8. In 1884, the Sawyer Decision prohibited the dumping of hydraulic mine debris into the Sacramento and San Joaquin Rivers and their tributaries. The Sawyer Decision ended large scale hydraulic mining in most of California, including the French Corral Mining District. Small scale intermittent mining operation continued in the area from the late 1880s through the early 1970s.

9. Larger surface mining operations were conducted most recently at the Facility in the 1970s and 1980s by Pantle Mining Corporation (Pantle) and Richard Schmittel's company (Schmittel). Since 1993, the Facility has been "idle," as that term is defined in the Surface Mining Reclamation Act of 1975 (SMARA)(Pub. Resources Code, § 2727.1.)

FACILITY DESCRIPTION

10. The Facility is part of the French Corral diggings, within the French Corral Mining District. Wyatt Reservoir is located east of the Facility, within the McClain Ravine drainage. The Facility can be described as three distinct segments, described below from north to south:

Manzanita Hill

11. Manzanita Hill, an undisturbed segment of the Tertiary channel deposit, is located on the northern end of the Facility. The Discharger estimates that this area contains approximately 24.5 acres of mineable gravel. Bedrock depths are believed to range from 70 to 130 feet below the ground surface. The Manzanita Hill area is described in the Mining and Reclamation Plan (Enviroanalysis 1981) as "Phase 2" of the mining operation. Phase 2 mining operations in the Manzanita Hill area are not regulated by these WDRs.

Matthews Pond and Vicinity

12. Phase 1 mining operations will focus on channel deposits present within the Matthews Pond area, an approximately 20-acre portion of the upper French Corral pit that extends approximately 1,200 feet south from the main headwall and has an average east-west dimension of approximately 725 feet. Ponds in this area were formerly referred to as Minona Pond and Brandtley Pond. Past mining operations resulted in a single pond measuring approximately 3 acres, which is now known as Matthews Pond. Upper gravel deposits have generally been removed from this Phase 1 mining area, and excavation was deepest within the Matthews Pond location. The Discharger estimates that 20 to 60 feet of undisturbed gravels are present to the east, west and south of Matthews Pond. Processing operations are to be located southeast of Matthews Pond. The proposed mining and processing areas are shown on Attachment B.

Pantle-Schmittel Tailings

13. The Pantle-Schmittel Tailings area extends approximately 1,230 feet south from the gravel road running east-west across the southern end of the Matthews Pond area. Gravels in this area were washed and screened with reportedly significant losses of the finer particles of gold. Testing of this area by the Discharger indicates that the existing placer tailings can be economically processed a second time.

GEOLOGY

14. The Facility is situated on the North San Juan Ridge above the South Yuba River, within the Sierra Nevada physiographic province on the western foothills of the Sierra Nevada mountain range.

15. According to Earth Sciences Associates (ESA, 1981), the French Corral mine was developed along part of a Tertiary channel that extends between North San Juan and Smartsville. Parts of the channel are preserved in the upland area between the main and south fork of the present Yuba River. Near French Corral, the channel remnant is approximately 1,500 feet wide. Where not modified by mining in the area between French Corral and Birchville, the channel is expressed topographically by low, rounded hills with intervening reaches of low ground.

16. Much of the Tertiary channel deposits within the French Corral diggings were removed by hydraulic mining in the late 1800s. The approximate boundaries of the channel are shown on Attachment B. The Facility is located within a hydraulically mined area known as the French Corral pit. The pit is generally flat-lying with steep walls, and extends south from the main headwall where the historic hydraulic mining operations were terminated.

17. Channel deposits remain in-place at the northern end of the French Corral pit, in the proposed Phase 1 mining area. More recent small-scale mining and prospecting in the Phase 1 area has resulted in shafts, pits, tailings piles and diked settling ponds.

18. ESA describes the channel gravels as dense, partially-cemented, clayey, sandy gravel to gravelly, silty sand. The tailings are described as sandy gravel with lenses of relatively clean sand.

19. Bedrock is exposed to the south of the Facility, at the base of the diggings near the unincorporated community of French Corral. The Geologic Map of the Chico Quadrangle, California (Department of Conservation, Division of Mines and Geology (DMG) 1992) maps local bedrock as volcanic and intrusive rocks (quartz diorite and tonalite) associated with the Smartville Complex.

Soil Conditions

20. The United States Department of Agriculture Conservation Soil Service, "Soil Survey of Nevada County Area, California" (1975), maps the Facility location as Placer diggings and Tailings, containing little remnant soil. Manzanita Hill, an un-mined area located immediately north of the Facility, is typified by the Horseshoe gravelly loam soil type. The Horseshoe soil type is described as having a moderate erosion hazard and medium runoff, and is typified by 4 to 6 feet of soil underlain by stratified Tertiary channel deposits.

Fault Activity

21. The Fault Activity Map of California and Adjacent Areas, California (CDMG, 1994) indicates that the Grass Valley Fault are located within approximately two miles east of the Facility. The Wolf Creek Fault Zone is located within approximately two miles northeast of the Facility. The faults are described as pre-Quaternary, having no recognized displacement within the last 1.6 million years. Historic displacement has been recorded along a segment of the Cleveland Hill Fault located approximately 18 miles northwest of the Facility. Other faults in the Facility vicinity within the Foothills Fault Zone are depicted as having evidence of Quaternary displacement.

Precipitation

22. The Facility is located 3 miles southeast of the *Dobbins Colgate Fore, Yuba County* weather station (reported latitude 39.33°N, longitude 121.20°W, elevation 1551 feet above MSL), at elevations ranging from approximately 1,550 to 1,750 feet above MSL. The reported annual average rainfall for the weather station is 40.8 inches from the period of 1931 to 1970, whereas the average annual rainfall for the Facility location is approximately 39 inches based on NCDOT Standard Drawing D-10.

Land Use

23. The Facility is currently idle. Low density residential and agricultural properties are located in the Facility vicinity. According to aerial photography on the Google Earth website, two residential structures are located within approximately 300 feet west of the Facility, and are accessed from Pleasant Valley Road. Crops do not appear to be grown within one mile of the perimeter of the mine unit based on review of aerial photographs. Land in the Facility vicinity may be used for grazing, and grazing is a potential post-mining land use at the Facility.

MINING, PROCESSING, AND WASTE DISPOSAL OPERATIONS

24. The proposed mining operation includes excavation of the undisturbed Tertiary gravels and existing placer tailings by front-end loader, excavator, or other similar mining equipment, followed

by transportation to the processing plant by truck or conveyor. Processing of the gold bearing material is performed by conventional washing, scrubbing, and gravity separation using water and screening. Trommels, vibrating screens, and gravity concentrators are used to separate and concentrate the gold ore. Gold is removed from the concentrates by a physical separation process. No use of chemicals such as cyanide or mercury is proposed.

25. Phase 1 mining operations will include the dewatering of Matthews Pond to facilitate mining activities. Water will be pumped from Matthews Pond to Detention Basin 1. Some water pumped from Matthews Pond may be land applied south of the process area and on adjacent property located southeast of the Facility. Specific criteria that eliminate the likelihood of runoff from the irrigated land to surface waters are described in the ROWD.

26. Phase 1 includes the excavation and processing of the native deposits in the Matthews Pond vicinity (Phase 1A and Phase 1B) as well as the excavation and reprocessing of the tailings located within the Pantle-Schmittel Tailings area, located south of Matthews Pond area (Phase 1C). Initially tailings will be transported by truck to Mining Unit-1 and then placed, compacted and graded as part of reclamation. Tailings or waste gravels may also be used to surface roads within the Facility.

27. Phase 1A includes the construction of a ramp extending north from the process area down into Phase 1, and excavation within the eastern portion of Phase 1 to bedrock. Based on exploration drilling and geophysical study, the Discharger estimated a Phase 1A excavation volume of 316,285 cubic yards.

28. Phase 1B of the mining operation includes excavation to bedrock within the western portion of the Phase 1 area. The estimated excavation volume for Phase 1B is 97,290 cubic yards.

29. Phase 1C excavation is to proceed from south to north within the Pantle-Schmittel Tailings area. This area comprises approximately 9 acres and extends approximately 1,200 feet north from the Facility entrance road to the processing area. Phase 1C contains approximately 250,000 cubic yards minable material, including tailings from the 1980s Pantle-Schmittel operations, and undisturbed gravel deposits underlying the tailings. This volume estimate includes the volume of materials to be excavated for Detention Basin 1.

30. Mining waste at the Facility will be generated by mining and processing the undisturbed tertiary gravels, previously processed (existing) placer tailings, processed sand (or black sand), and the solid residues, sludges, and liquids from the processing of ore. Gold recovered from the processing circuit will be shipped off-site for further refining.

31. Final non-gold bearing processed sand (black sand) potentially containing other marketable minerals may be temporarily stored on-site in covered rolloff containers. Temporary storage of the black sand in the covered rolloff containers will not exceed 120 days or 20 cubic yards. Black sand concentrates are expected to be generated at a maximum rate of 400 pounds per day or 4.5 tons per month. Black sand concentrates may be shipped off-site to a licensed refiner for further refining.

32. Black sand concentrates may also be blended with placer tailings at a ratio no less than 1 part tailings to 1 part sand and placed as waste in the Mining Units as described in Finding No. 43 below.

33. Process water will be retained in unlined settling ponds. Washed gravels will be dewatered by stockpiling, and water flow is by gravity back into the process water ponds. No discharge of process water off-site is proposed. Reclamation is generally to be performed concurrently with mining.

34. The tailings placement area located on the southern end of the site (see Attachment B) is designed to contain up to one quarter of the volume excavated of Phase 1A, as well as the materials excavated from the detention basin and the ramp. Tailings generated from the remaining materials excavated from Phase 1A are to be placed back into the Phase 1A excavation in general accordance with the concurrent reclamation procedures described on page 39 of the Surface Mining and Reclamation Plan (Enviroanalysis, 1981). The active mining pit will generally migrate within Phase 1A (and subsequently within Phase 1B) using an approximate pit floor area of one acre and a surface area (including slopes) of approximately two acres. As the pit migrates, concurrent reclamation will include backfilling and revegetation of the previously mined area.

WASTE CHARACTERIZATION

35. Title 27, section 22480, classifies mining wastes in three Groups as follows:

> (b) Waste Group Classification -Mining wastes shall be classified as Group A, Group B, or Group C mining wastes based on an assessment of the potential risk of water quality degradation posed by each waste. In setting requirements for each mining waste discharge under this article, the RWQCB shall assign the waste to Group A, Group B, or Group C according to the following criteria:
>
> (1) Group A -mining wastes of Group A are wastes that must be managed as hazardous waste pursuant to Chapter 11 of Division 4.5, of Title 22 of this code, provided the RWQCB finds that such mining wastes pose a significant threat to water quality;
>
> (2) Group B -mining waste of Group B are either:
>
> (A) mining wastes that consist of or contain hazardous wastes, that qualify for a variance under Chapter 11 of Division 4.5, of Title 22 of this code, provided that the RWQCB finds that such mining wastes pose a low risk to water quality; or
>
> (B) mining wastes that consist of or contain nonhazardous soluble pollutants of concentrations which exceed water quality objectives for, or could cause, degradation of waters of the state; or
>
> (3) Group C -mining wastes from Group C are wastes from which any discharge would be in compliance with the applicable water quality control plan, including water quality objectives other than turbidity.
>
> (c) Classification Considerations -In reaching decisions regarding classification of a mining waste as a Group B or Group C waste, the RWQCB can consider the following factors:
>
> (1) whether the waste contains hazardous constituents only at low concentrations;
>
> (2) whether the waste has no or low acid-generating potential; and

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

Soluble Waste

36. The undisturbed tertiary gravels are described as dense, partially-cemented, clayey, sandy gravel to gravely, silty sand. The existing placer tailings are described as sandy gravel, with lenses of relatively clean sand. A small remnant deposit of processed sand (black sand) from shaker tables of the former Pantel and Schimattel mining operations is located near the southern end of the Facility.

37. The Discharger submitted a 29 December 2011 *Report of Waste Characterization* (Characterization Report) to summarize field sample collection activities and to present results of laboratory analysis for the French Corral Mine. In the Characterization Report, the Discharger concluded that based on results of acid-base accounting, the proposed mining and processing of the placer deposits has a low potential for producing acid mine drainage. The acid neutralizing potential (ANP) to acid generating potential (AGP) ratio was well above the neutralizing potential ratio (NPR) of 3 for two of the three samples tested and neither acid generating potential nor acid neutralizing potential was detected in the third sample tested.

38. Based on results of acid-base accounting, deionized water was substituted for the citrate buffer in subsequent waste extraction tests (WET). This modification is described in Chapter 5 (Mining Wastes) of the California Regional Water Quality Control Board Central Valley Region *Staff Report Designated Level Methodology for Waste Classification and Cleanup Level Determinations* (DLM, June 1989). Hereafter, this procedure is referred to as State of California Modified Waste Extraction Test, or DI-WET.

39. Except for antimony, arsenic, mercury and thallium, no extractable (soluble) metals were detected by DI-WET at concentrations exceeding the water quality objectives listed in Tables 1 and 3 of the Characterization Report. Soluble antimony was detected in the undisturbed Tertiary gravel sample, but not in processed samples. Soluble arsenic was detected at concentrations exceeding the California Public Health Goal, but did not exceed the maximum contaminant levels (MCL) for drinking water. Soluble mercury was detected in sample FC-MW-2 (0.11 ug/L) at a concentration below the MCL for drinking water. Soluble thallium was detected in the undisturbed Tertiary gravel sample (2.1 ug/L) just above the MCL (2.0 ug/L), but not in processed samples.

40. In the Characterization Report, the Discharger incorporated an attenuation study based on the DLM, which outlines a process for evaluating site-specific conditions to determine whether a threat is posed to surface water or groundwater quality from soluble constituents identified at the Facility. The attenuation study looked at leachability and attenuation of the soluble constituents identified in Finding 39 above. Based on results of the attenuation study, all DI WET metal concentrations were below their corresponding soluble designated levels for surface water and groundwater based on the MCL values.

41. The Discharger concluded that the physical and chemical characterization of the Tertiary gravels and existing placer tailings is adequate to demonstrate that the potential risk of water quality

degradation is low, provided that the proposed mining operation and tailings management are performed in accordance with appropriate erosion and sediment control practices.

42. Based on results of the water quality evaluation of the Tertiary gravels and existing placer tailings, as represented by samples FC-TG-1 and FC-MW-1, the Discharger concluded that these materials may be classified as Group C mine waste as defined in Title 27, section 22480.

43. The Discharger also concluded that the black sand (FC-MW-2) may be characterized as Group C waste, provided that the black sand is blended with placer tailings at a ratio no less than 1 part tailings to 1 part sand. The black sands constitute less than 1 percent of the total volume of the placer tailings. As discussed in Finding 40, sufficient attenuation of soluble constituents exists for protection of the beneficial uses of groundwater.

44. In the Characterization Report, the Discharger classified existing mining waste and future mining waste at the Facility as Group C mining waste. In a 6 February 2012 letter, Central Valley Water Board staff concurred with the Group C classification of the French Corral mining waste.

45. To ensure that Group C Classification remains appropriate, the Monitoring and Reporting Program will require ongoing sampling and characterization of the mining waste in accordance with Water Code section 13260(k). Ongoing characterization of the mining waste shall be at the frequency of one sample for every 50,000 cubic yards of mining waste discharged or at least one sample per calendar year.

SURFACE WATER AND GROUND WATER CONDITIONS

46. The Facility is part of the French Corral diggings, within the ephemeral French Corral Creek drainage. The Matthews Pond area, an approximately 20-acre portion of the upper French Corral pit extends approximately 1,200 feet south from the main headwall and has an average east-west dimension of approximately 725 feet. Surface drainage from the Facility flows south into French Corral Diggings which forms the headwaters of French Corral Creek, tributary to the South Fork of the Yuba River. Wyatt Reservoir and McClain Ravine are located east of the Facility and drain to the South Fork of the Yuba River.

47. Results of surface water sampling and analysis performed as part of the Characterization Report did not identify significant water quality concerns for surface water in Matthews Pond. Matthews Pond represents upgradient background surface water conditions. When Matthews Pond is dewatered, there will be no upgradient surface water monitoring point.

48. The Central Valley Water Board has adopted the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition, revised October 2011 (the "Basin Plan") that 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 French Corral Creek or McClain Ravine, but does identify present and potential uses for the Yuba River, to which French Corral Creek and McClain Ravine 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; cold freshwater habitat; cold spawning, and wildlife habitat.

49. Pursuant to the conditions of the use permit, **no discharge to surface water other than the settling ponds is proposed**. Settling ponds are designed to contain gravel washing discharge. Operation during the rainy season will require the management of storm water runoff to avoid discharge of contact water.

50. The designated beneficial uses of the groundwater, as specified in the Basin Plan are: municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.

51. Groundwater generally occurs in bedrock fractures, and in the gravel deposits of the Tertiary channel. Because local surface water bodies are located at various elevations, the undisturbed channel materials are expected to have fairly low permeability. Disturbed materials (such as tailings) will have significantly higher permeability.

52. Five groundwater monitoring wells (MW-1 through MW-5) were installed as part of the current characterization work. The wells were advanced to the bedrock and then screened near the base of the gravels, above bedrock.

53. The first encountered groundwater elevations ranged from 1590 feet to1692 feet above mean sea level. Based on groundwater elevations, the gradient for shallow groundwater overlying bedrock was estimated to be 0.03 to the south-southeast.

54. Initial monitoring of total and dissolved metal constituents of concern (COCs) in the monitoring wells indicates that, only dissolved thallium in upgradient well MW-1 (4.1 ug/L) exceeds the Primary MCLs for drinking water (2 ug/L). Some COCs exceeded Secondary MCLs or public health goals (PHG).

WASTE MANAGEMENT UNIT DESIGN

55. The Characterization Report demonstrated that the mine waste may be characterized as Group C mining waste under Title 27, provided that the black sands (which comprise less than 1% of the washed gravel) are blended back into the tailings at a ratio no less than one part placer tailings to one part processed black sand concentrates.

56. Regulations set forth in Title 27, section 22490, which establish prescriptive standards for construction of Mining Units and containment are not applicable for Group C mining wastes. 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.

57. The Group C mine waste disposal areas will consist of the Mining Units shown on Attachment B. Final slopes are graded at 3:1 horizontal to vertical (H:V) or flatter.

58. Because some of the tailings from Phase 1A are to be placed on the southern portion of the Facility, the reclaimed French Corral pit will be wider than its present configuration.

CLOSURE, POST-CLOSURE MAINTENANCE AND FINANCIAL ASSURANCE

59. The Discharger has a reclamation plan (RP-92-003) and related financial assurance approved by Nevada County, the lead agency for the project. These WDRs consider the French Corral Mine reclamation plan and related financial assurance as functionally equivalent to Closure and Post-Closure Maintenance of Mining Units and Closure and Post-Closure Funding required by Title 27, subsections 22510 (b), (c) and (f). Therefore, any amendments to the French Corral Mine reclamation plan should be submitted to Central Valley Water Board to determine if the reclamation plan is still consistent with Title 27, subsections 22510 (b), (c) and (f).

60. The approved financial assurance mechanism for the Discharger's mining and reclamation plan approved by Nevada County includes the Closure and Post-Closure Financial Assurances required by Title 27, subsection 22510(f), provided that the Central Valley Water Board is named as an alternate payee for the financial assurance mechanism.

CEQA CONSIDERATIONS

61. On 25 March 1993, the Nevada County Planning Commission adopted a negative declaration (EIS92-091) for proposed amendments to the existing Use Permit and Reclamation Plan (U74-29) for the French Corral Mine and approved the amended Use Permit (U92-070); and on 8 April 1993, the Nevada County Planning Commission later approved the amended Reclamation Plan (92-003). These documents are currently in use by the lead agency for administering the French Corral Mine facility.

OTHER LEGAL REFERENCES

62. Water Code section 13267(b) provides that*:*

> In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has discharged, discharges, or is suspected of 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.

The technical reports required by this Order and the attached MRP R5-2012-0057 are necessary to assure compliance with these waste discharge requirements. The Discharger owns and operates the Facility.

PROCEDURAL REQUIREMENTS

63. 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.

64. 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 California Natural Resources Corporation (facility owner and operator) and Maurice Altshuler and Bartlett Burnap (landowners), 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. The discharge of “hazardous waste” or “Group A” or “Group B” mining waste at the 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 Mining Units 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 mining waste at the Facility from sources other than the French Corral Mine is prohibited.

4. The discharge of mining wastes outside the Mining Units is prohibited except as otherwise permitted under additional Central Valley Water Board orders.

5. The discharge of process water to surface water or surface water drainage courses is prohibited.

6. The discharge of groundwater or mine water from Matthews Pond to surface water or surface water drainage courses is prohibited

B. DISCHARGE SPECIFICATIONS

General Specifications

1. Wastes shall only be discharged into the Mining Units or backfilled in accordance with the Reclamation Plan.

2. The Discharger shall promptly report slope changes such as movement caused by slumping or slipping, or unusual erosion.

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

4. The Mining Units shall be constructed as described in the Discharger's ROWD and Findings 58 through 61.

Detention Basin Construction

5. Detention basins shall be designed and constructed under the direct supervision of a California Professional Civil Engineer or Certified Engineering Geologist.

6. Precipitation and drainage controls shall be designed and constructed to accommodate the anticipated volume and precipitation and peak flows from surface runoff for one 10-year, 24-hour storm event as required by Title 27, subsection 22490(h)(1)(C).

7. Wastes shall only be placed in the Mining Units as described in the Discharger's ROWD and Reclamation Plan and in a manner that reduces erosion and controls drainage to prevent the discharge of sediment to surface waters.

Protection from Storm Events

8. For the Mining Units, 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 for one 10-year, 24-hour precipitation.

9. The Discharger currently is covered by State Water Resources Control Board Order 97-03-DWQ, *General Permit for Discharges of Storm Water Associated with Industrial Activities*. The Discharger shall continue to maintain and comply with Order 97-03-DWQ, and any amendments thereto or any General Orders that may supersede 97-03-DWQ.

10. Annually, prior to the anticipated wet season but no later than **15 October** of each year, 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.

Reclamation

11. The Discharger shall submit any proposed amendment to the French Corral reclamation plan to the Central Valley Water Board to determine if the reclamation plan is still consistent with Title 27, subsections 22510 (b), (c) and (f).

12. Subsequent amendments to the reclamation plan and related financial assurance shall be incorporated herein and made part of this Order by reference provided that any proposed amendments to the reclamation plan are functionally equivalent to the Closure and Post-Closure Maintenance of Mining Units required by Title 27, subsections 22510 (b), (c) and (f) and are approved by Central Valley Water Board staff.

13. The Facility shall be closed in a manner that will minimize erosion and the threat of water quality degradation.

14. Following closure, the Discharger will continue to collect ground and surface water samples as described in the Closure and Post-Closure Maintenance section of the ROWD. The purpose of monitoring procedures is to document whether the mining and reclamation procedures prevent water quality degradation and ensure that there will be no significant increase in concentration of indicator parameters or waste constituents in ground or surface water.

15. The post-closure monitoring and maintenance period shall end when the Central Valley Water Board determines that water quality aspects of reclamation are complete and the wastes no longer pose a threat to water quality.

C. MONITORING SPECIFICATIONS

1. Neither the construction of the Facility, the discharge of waste at the Facility, the closure of the Facility, nor post-closure maintenance of the Facility shall cause or allow groundwater or surface water to be degraded.

2. 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 R5-2012-0057. The Discharger has installed five groundwater monitoring wells for the Facility. MW-1 is upgradient of the Facility. Two monitoring wells, MW-2 and MW-3 have been installed downgradient of the Phase 1 mining area. Two other monitoring wells, MW-4 and MW-5 have been installed downgradient of Mining Unit-1.

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

4. The Discharger shall comply with the Water Quality Protection Standard as specified in this Order, Monitoring and Reporting Program R5-2012-0057, and the Standard Provisions and Reporting Requirements (SPRRs), Mining Wastes dated February 2009.

5. The Discharger shall submit a Water Quality Protection Standard Report within **one year** 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 R5-2012-0057.

6. 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 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.

7. 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 R5-2012-0057.

8. 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 R5-2012-0057 and Title 27, subsection 20415(e).

9. 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 SPECIFICATIONS

1. The Discharger shall maintain an approved financial assurance instrument to guarantee the reclamation in accordance with the approved reclamation plan. The Discharger shall adjust the cost annually, as required under Public Resources Code section 2773.1, and the financial assurances shall be determined in accordance with California Code of Regulations, title 14, section 3804.

2. Excepting 2012, by **1 June of each year,** the Discharger shall submit to the Central Valley Water Board updated cost estimates and a demonstration of assurances of financial responsibility for closure, and post-closure maintenance (reclamation) of the Facility.

E. PROVISIONS

1. The Discharger shall comply with Standard Provisions and Reporting Requirements (SPRRs) Mining Wastes dated February 2009. The SPRRs contain important provisions and requirements with which the Discharger must comply.

2. The Discharger must comply with Monitoring and Reporting Requirements Order R5-2012-0057. Compliance includes, but is not limited to, monitoring of waste, surface water and groundwater throughout the active life of the Mining Units and post-closure maintenance period.

3. The Discharger shall notify Central Valley Water Board staff **within 24 hours** of any unpermitted discharge, flooding, equipment failure, slope failure, or other change in facility conditions or related precipitation and drainage controls or degradation of waters of the state.

4. The Discharger shall maintain legible records at the Facility of volume and type of waste discharged. The Discharger shall make such records available for review by representatives of the Central Valley Water Board and State Water Resources Control Board.

5. Within **six months of the adoption of this Order**, the Discharger shall submit for approval of the Executive Officer a Sampling and Analyses plan for on-going characterization of the waste rock to determine if the waste rock remains appropriately classified as Group C mining waste. Ongoing characterization of the mining waste shall be at the frequency of one sample for every 50,000 cubic yards of mining waste discharged or at least one sample per calendar year.

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

TASK	DATE DUE
Submit ongoing characterizing of the mining waste (see Finding 47).	**By 1 August of each year.**
Submit Water Quality Protection Standard Report (Monitoring Specification C-5).	**By 8 June 2013.**
Submit updated cost estimates and financial assurances for reclamation (Financial Assurance Specification D.2)	**By 1 June of each year.**

7. 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 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.

8. In the event of any change in control or ownership of the French Corral Mine facility, 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's Rancho Cordova Office. To assume operation as a Discharger under this Order, the succeeding owner or operator must submit a written request requesting transfer of the Order to the Executive Officer. 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 Water Code. Transfer shall be approved or disapproved by the Executive Officer.

9. 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 the Facility, 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.

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

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to $10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

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 holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

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

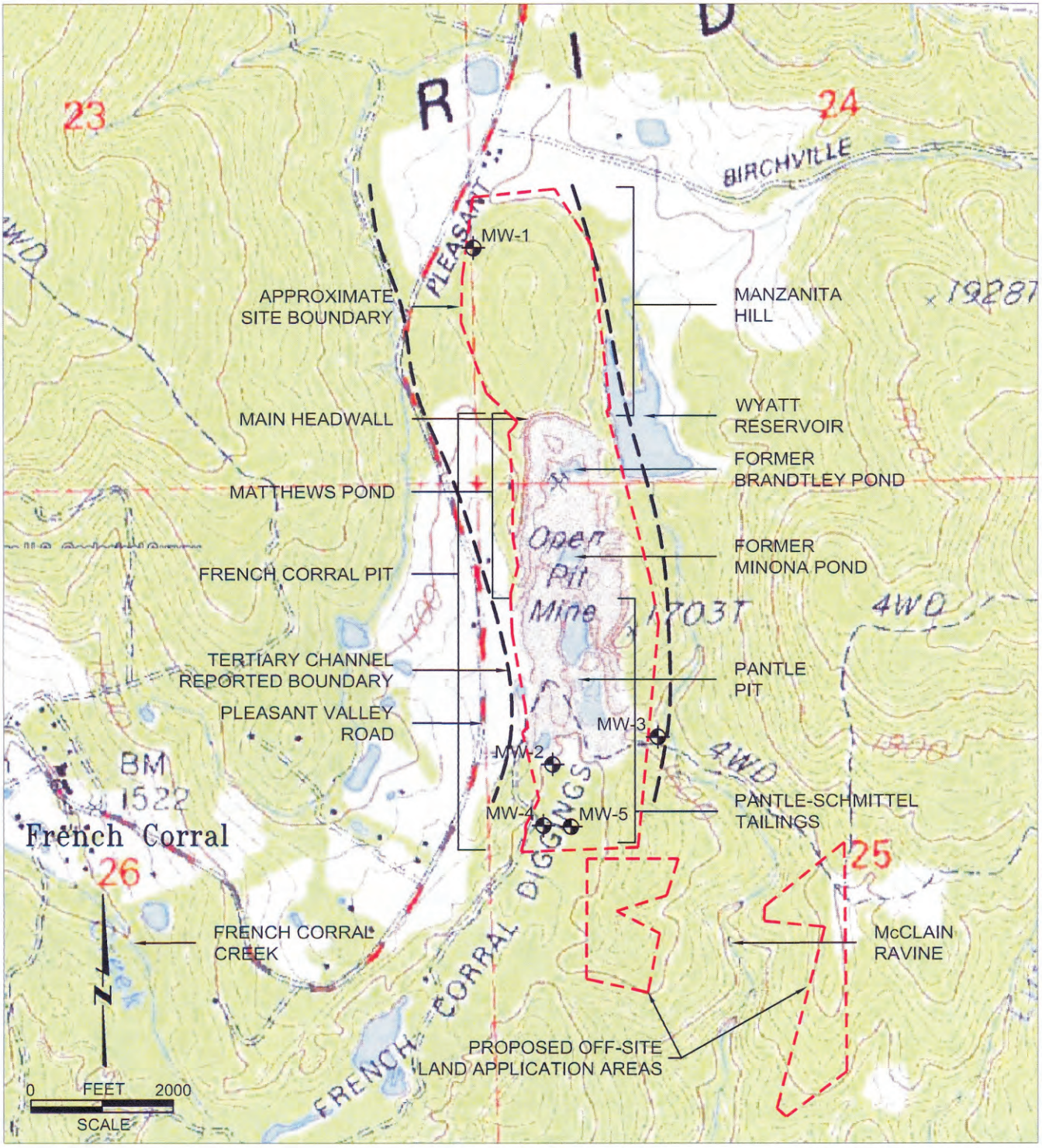
or will be provided upon request.

I, Pamela C. Creedon, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the Central Valley Regional Water Quality Control Board, on 8 June 2012.

Original Signed by

PAMELA C. CREEDON, Executive Officer

JSH/VJI



LEGEND

MW-1 ⊕ GROUNDWATER MONITORING WELL NUMBER AND APPROXIMATE LOCATION

BASE MAP FROM USGS FRENCH CORRAL QUADRANGLE 1995

Drawing Reference:
FRENCH CORRAL, CALIF.
U.S.G.S TOPOGRAPHIC MAP
7.5 MINUTE QUADRANGLE
1995

SITE LOCATION MAP
CALIFORNIA NATURAL RESOURCES CORP, AND
MAURICE ALTSHULER & BARTLETT BURNAP
MINING, PROCESSING, AND RECLAMATION
FRENCH CORRAL MINE
NEVADA COUNTY, CA

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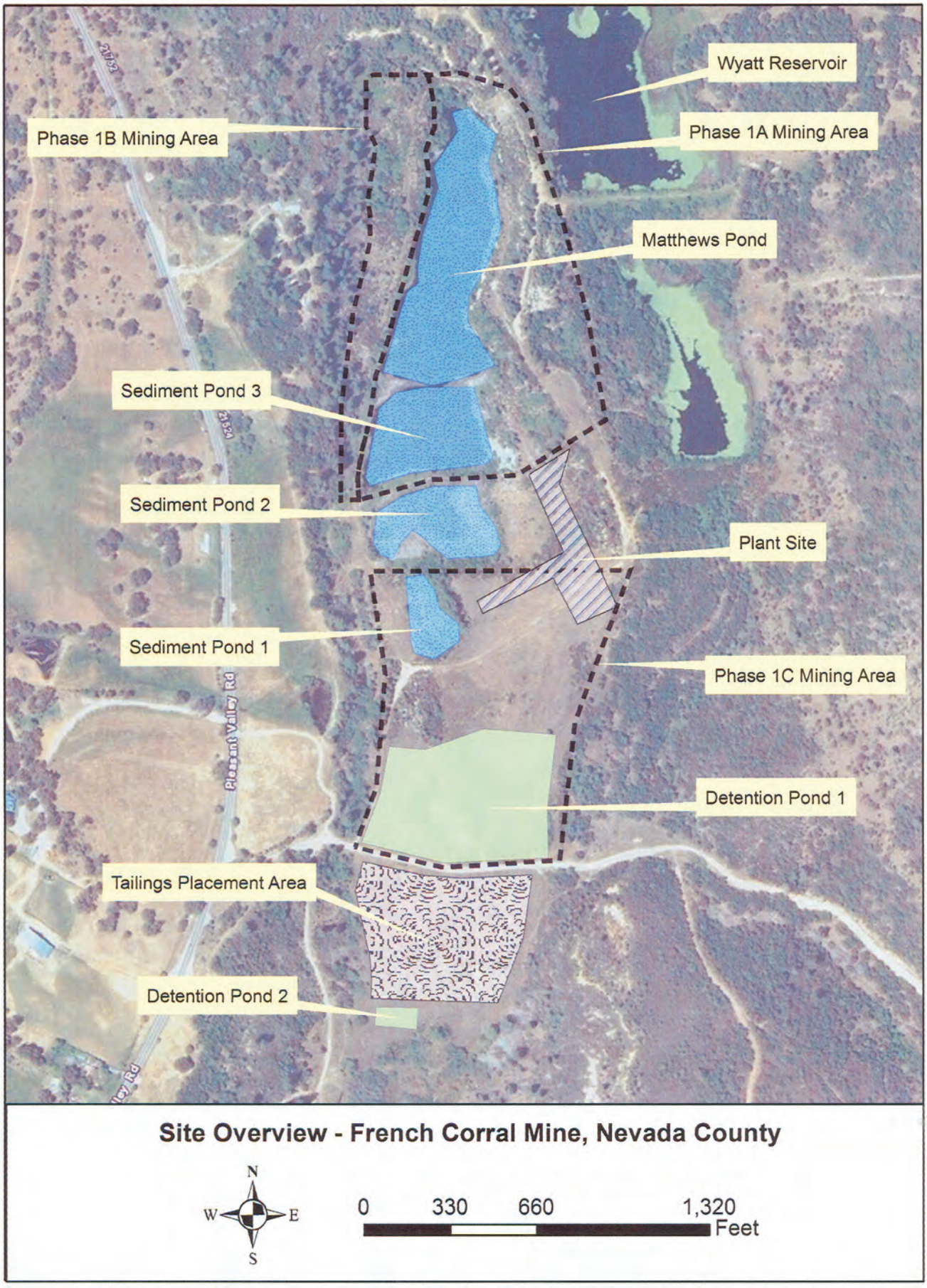
Attachment B



Site Overview - French Corral Mine, Nevada County

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2012-0057
FOR

CALIFORNIA NATURAL RESOURCES CORPORATION,
AND
MAURICE ALTSHULER AND BARTLETT BURNAP,

MINING, PROCESSING, AND RECLAMATION
FRENCH CORRAL MINE
NEVADA COUNTY

This monitoring and reporting program (MRP) is issued pursuant to Water Code section 13267. This MRP contains requirements for groundwater monitoring, surface water monitoring, facility monitoring, maintenance, and reporting; requires the submittal of periodic updates regarding the financial assurance mechanisms required by Waste Discharge Requirements (WDRs) Order R5-2012-0057; and includes requirements related to the implementation of the Standard Provisions and Reporting Requirements (SPRRs) dated February 2009. The Discharger shall not implement any changes to this MRP unless a revised MRP is issued by the Central Valley Water Board or the Executive Officer.

A. MONITORING

The Discharger shall comply with the detection monitoring program provisions contained in California Code of Regulations, title 27 ("Title 27") for groundwater and surface water in accordance with Standard Monitoring Specifications in Section I of the SPRRs and the Monitoring Specifications in Section C of the WDRs. All monitoring shall be conducted in accordance with the approved *Sample Collection and Analysis Plan*, (Holdrege & Kull, 15 March 2012) which includes quality assurance/quality control standards.

All compliance monitoring wells established for the detection monitoring program shall constitute the monitoring points for the groundwater Water Quality Protection Standard. All detection monitoring program groundwater monitoring wells and surface water monitoring points shall be sampled and analyzed for monitoring parameters and constituents of concern (COCs) as indicated and listed in Tables I through III.

The Discharger may 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, and are identified in the approved Sample Collection and Analysis Plan.

The monitoring program of this MRP includes:

Section	Monitoring Program
A.1	Groundwater Monitoring
A.2	Surface Water Monitoring
A.3	Facility Monitoring

1. Groundwater Monitoring

The Discharger shall operate and maintain a groundwater detection monitoring system. The detection monitoring system shall be certified by a California-licensed professional civil engineer or geologist as meeting the requirements of Title 27. The current groundwater detection monitoring system meets the applicable requirements of Title 27.

The current groundwater monitoring network shall consist of the following:

Well	Status	Units Being Monitored
MW-1	Background	Mining Units 1 through 4
MW-4	Detection	Mining Units 1 through 4
MW-5	Detection	Mining Units 1 through 4

Groundwater samples shall be collected from the background wells, detection monitoring wells, and any additional wells added as part of the approved groundwater monitoring system. The collected samples shall be analyzed for the parameters and constituents listed in Table I in accordance with the specified methods and frequencies. The Discharger shall collect, preserve, and transport groundwater samples in accordance with the approved Sample Collection and Analysis Plan.

Once per quarter, the Discharger shall measure the groundwater elevation in each well and determine the groundwater flow direction. The results shall be reported semiannually, including the times of expected highest and lowest elevations of the water levels in the wells, pursuant to Title 27, section 20415(e)(15).

Samples collected for the COC monitoring specified in Table I shall be collected and analyzed in accordance with the methods listed in Table III every five years. Five-year COCs were last monitored in 2011 and shall be monitored again in 2016. The results shall be reported in the Annual Monitoring Report for the year in which the samples were collected.

2. Surface Water Monitoring

The Discharger shall operate a surface water monitoring system for any mining unit where runoff from the mining unit flows or could flow to waters of the United States. At the French Corral Mine, runoff from the mining units flows to detention basins that periodically discharge to the French Corral surface water drainage course. The surface water monitoring system shall be consistent with the applicable requirements of Water Quality Order 97-03-DWQ (General Industrial Permit).

At this time, Matthews Pond represents the upgradient background surface water conditions. Once Matthews Pond is dewatered, there will be no upgradient surface water monitoring point. The surface water monitoring points for the French Corral Mine are:

Mon Pt.	Status
DC-1	French Corral drainage course
DB-1	Detention Basin 1discharge location
DB-2	Detention Basin 2 discharge location

For surface water detection monitoring, a sample shall be collected at each monitoring point location and analyzed for the monitoring parameters and constituents in accordance with the frequency specified in Table II and the methods specified in Table III. All surface water monitoring samples shall be collected and analyzed for the 5-year COCs specified in Table III every five years, beginning again in 2016.

3. Facility Monitoring

a. Annual 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 repair and maintenance needed for drainage control systems, cover systems, and groundwater monitoring wells; and shall assess preparedness for winter conditions (including but not limited to erosion and sedimentation control). The Discharger shall take photos of any problems areas before and after repairs. Any necessary construction, maintenance, or repairs shall be completed by **31 October**. Annual facility inspection reporting shall be submitted as required in Section B.4 of this MRP.

b. **Major Storm Events**

The Discharger shall inspect all precipitation, diversion, and drainage facilities and all mining unit side slopes for damage **within 7 days** following major storm events capable of causing damage or significant erosion. The Discharger shall take photos of any problems areas before and after repairs. Necessary repairs shall be completed **within 30 days** of the inspection. Notification and reporting requirements for major storm events shall be conducted as required in Section B.4 of this MRP.

c. **Standard Observations**

The Discharger shall conduct Standard Observations at the facility in accordance with this section of the MRP. Standard observations shall be conducted in accordance with the following schedule:

Mining Unit Type	Frequency	Season
Active	Weekly	Wet: 1 October to 30 April
Active	Monthly	Dry: 1 May to 30 September
Inactive/Closed	Monthly	Wet: 1 October to 30 April
Inactive/Closed	Quarterly	Dry: 1 May to 30 September

The Standard Observations for the mining units shall include:

1) Signs of erosion along the slopes or perimeter (show affected area on map):

2) For receiving waters:

   a) Floating and suspended materials of waste origin - presence or absence, source, and size of affected area; and

   b) Discoloration and turbidity - description of color, source, and size of affected area.

Results of Standard Observations shall be submitted in the semiannual monitoring reports required in Section B.1 of this MRP.

B. REPORTING

The Discharger shall submit the following reports in accordance with the required schedule:

Reporting Schedule

Section	Report	End of Reporting Period	Due Date
B.1	Semiannual Monitoring Report	30 June, 31 December	**1 August, 1 February**
B.2	Annual Monitoring Report	31 December	**1 February**
B.3	Annual Facility Inspection Report	31 October	**15 November**
B.4	Major Storm Event Reporting	Continuous	**7 days from damage discovery**
B.5	Financial Assurances Report	31 December	**1 June**
B.6	Waste Characterization Report		**1 August**

Reporting Requirements

The Discharger shall submit monitoring reports **semiannually** with the data and information as required in this Monitoring and Reporting Program and as required in WDRs Order R5-2012-0057 and the Standard Provisions and Reporting Requirements (particularly Section IX: “Provisions for Monitoring” and Section X: “Response to a Release”). 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. Data shall also be submitted in a digital format, such as a computer disk.

Field and laboratory tests shall be reported in each monitoring report. Semiannual and annual monitoring reports shall be submitted to the Central Valley Water Board in accordance with the above schedule for the calendar period in which samples were taken or observations made.

The results of **all monitoring** conducted at the site shall be reported to the Central Valley Water Board in accordance with the reporting schedule above for the calendar period in which samples were taken or observations made.

The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous

monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained throughout the life of the facility including the post-closure period. Such records shall be legible and shall show the following for each sample:

a) Sample identification and the monitoring point or background monitoring point from which it was taken, along with the identity of the individual who obtained the sample;

b) Date, time, and manner of sampling;

c) Date and time that analyses were started and completed, and the name of the personnel and laboratory performing each analysis;

d) Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;

e) Calculation of results; and

f) Results of analyses, and the MDL and PQL for each analysis. All peaks shall be reported.

Required Reports

1. **Semiannual Monitoring Report:** Monitoring reports shall be submitted semiannually and are due on **1 August** and **1 February**. Each semiannual monitoring report shall contain at least the following:

    a) For each groundwater monitoring point addressed by the report, a description of:

        1) The time of water level measurement;

        2) The type of pump - or other device - used for purging and the elevation of the pump intake relative to the elevation of the screened interval;

        3) The method of purging used to stabilize water in the well bore before the sample is taken including the pumping rate; the equipment and methods used to monitor field pH, temperature, and conductivity during purging; results of pH, temperature, conductivity, and turbidity testing; and the method of disposing of the purge water;

        4) The type of pump - or other device - used for sampling, if different than the pump or device used for purging; and

        5) A statement that the sampling procedure was conducted in accordance with the approved Sample Collection and Analysis Plan.

b) A map or aerial photograph showing the locations of observation stations, monitoring points, and background monitoring points.

c) The estimated quarterly groundwater direction, based upon water level elevations taken prior to the collection of the water quality data submitted in the report, as per Title 27, section 20415(e)(15).

d) Cumulative tabulated monitoring data for all monitoring points and constituents for groundwater and surface water. Concentrations below the laboratory reporting limit shall not be reported as "ND" unless the reporting limit is also given in the table. Otherwise they shall be reported "<" the reporting limit (e.g., <0.10). Units shall be as required in Tables I through III unless specific justification is given to report in other units. Refer to the SPRRs Section IX "Provisions for Monitoring" for requirements regarding MDLs and PQLs.

e) Laboratory statements of results of all analyses evaluating compliance with requirements.

f) An evaluation of the concentration of each monitoring parameter (or 5-year COC when five year COC sampling is conducted) as compared to the current concentration limits, and the results of any required verification testing for constituents exceeding a concentration limit. Report any actions taken under Section X: Response to a Release for verified exceedances of a concentration limit.

g) An evaluation of the effectiveness of monitoring and control facilities, and of the run-off/run-on control facilities.

h) A summary of all Standard Observations for the reporting period required in Section A.3.c of this MRP.

i) A summary of inspection and revegetation activities of any closed mining units in accordance with the approved final Closure and Post-Closure Maintenance Plan (Reclamation Plan, RP-92-003) as required by SPRRs Section XI.D. "Closure" and XI.E."Post-Closure."

2. **Annual Monitoring Report:** The Discharger shall submit an Annual Monitoring Report to the Central Valley Water Board by **1 February** covering the reporting period of the previous monitoring year. If desired, the Annual Monitoring Report may be combined with the second semiannual report, but if so, shall clearly state that it is both a semi-annual and annual monitoring report in its title. Each Annual Monitoring Report shall contain the following information:

a) All monitoring parameters shall be graphed to show historical trends at each monitoring point and background monitoring point, for all samples taken within at least the previous five calendar years. If a 5-year COC event was performed, than these parameters shall also be graphically presented. Each

such graph shall plot the concentration of one or more constituents for the period of record for a given monitoring point or background monitoring point, at a scale appropriate to show trends or variations in water quality. The graphs shall plot each datum, rather than plotting mean values. Graphical analysis of monitoring data may be used to provide significant evidence of a release.

b) An evaluation of the monitoring parameters with regards to the cation/anion balance, and a graphical presentation using a Stiff diagram, a Piper graph, or a Schoeller plot.

c) All historical monitoring data for which there are detectable results, including data for the previous year, shall be submitted in tabular form in a digital file format such as a computer disk. The Central Valley Water Board regards the submittal of data in hard copy and in digital format as necessary for conducting the periodic review and analysis required by Title 27. (Cal. Code Regs., tit. 27, § 20420(h).)

d) Hydrographs of each well showing the elevation of groundwater with respect to the elevations of the top and bottom of the screened interval and the elevation of the pump intake. Hydrographs of each well shall be prepared quarterly and submitted annually.

e) 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.

f) A map showing the area and elevations in which filling has been completed during the previous calendar year and a comparison to final closure design contours, and include a projection of the year in which each discrete mining unit will be filled.

g) A written summary of the monitoring results, indicating any changes made or observed since the previous Annual Monitoring Report.

h) Updated concentration limits for each monitoring parameter at each monitoring well based on the new data set.

3. **Annual Facility Inspection Reporting:** By **15 November** of each year, the Discharger shall submit a report describing the results of the inspection and the repair measures implemented, preparations for winter, and include photographs of any problem areas and the repairs. Refer to Section A.3.a of this MRP, above.

4. **Major Storm Event Reporting:** Following major storm events capable of causing damage or significant erosion, the Discharger **immediately** shall notify Central Valley Water Board staff of any damage or significant erosion upon discovery and report subsequent repairs within **14 days** of completion of the repairs, including

photographs of the problem and the repairs. Refer to Section A.3.b of this MRP, above.

5. **Financial Assurances Report:** By **1 June** of each year, the Discharger shall submit a copy of the annual financial assurances report due to Nevada County that updates the financial assurances for reclamation. Refer to Financial Assurances Specifications D.1 through D.2 of the WDRs.

6. **Waste Characterization Report:** To ensure that Group C Classification remains appropriate, ongoing sampling and characterization of the mining waste in accordance with Water Code section 13260(k) is required. Ongoing characterization of the mining waste shall be at the frequency of one sample for every 50,000 cubic yards of mining waste discharged or at least one sample per calendar year. Waste characterization reports shall be submitted annually and are due on **1 August**.

C. WATER QUALITY PROTECTION STANDARD AND COMPLIANCE PERIOD

1. Water Quality Protection Standard Report

The Discharger shall submit a Water Quality Protection Standard Report **by 7 June 2013**. The Water Quality Protection Standard Report shall include the information described in Sections 1.a through 1.e below.

For each waste management unit, the Water Quality Protection Standard shall consist of all COCs, the concentration limit for each constituent of concern, the verification retesting procedure to confirm measurably significant evidence of a release, the point of compliance, and all water quality monitoring points for each monitored medium.

The Water Quality Protection Standard for naturally occurring waste constituents consists of the COCs, the concentration limits, and the point of compliance and all monitoring points. Any proposed changes to the Water Quality Protection Standard other than annual update of the concentration limits shall be submitted in a report for review and approval.

The report shall:

a. Identify **all distinct bodies of surface and ground water** that could be affected in the event of a release from a waste management unit or portion of a unit. This list shall include at least the uppermost aquifer and any permanent or ephemeral zones of perched groundwater underlying the facility.

b. Include a map showing the monitoring points and background monitoring points for the surface water monitoring program and groundwater monitoring program. The map shall include the point of compliance in accordance with Title 27, section 20405.

c. Evaluate the perennial direction(s) of groundwater movement within the uppermost groundwater zone(s).

d. Include a proposed statistical method for calculating concentration limits for monitoring parameters and constituents of concern that are detected in 10% or greater of the background data (naturally-occurring constituents) using a statistical procedure from Title 27, section 20415(e)(8)(A-D) or section 20415(e)(8)(E).

e. Include a retesting procedure to confirm or deny measurably significant evidence of a release pursuant to Title 27, section 20415(e)(8)(E) and section 20420(j)(1-3).

The Water Quality Protection Standard shall be certified by a California-registered civil engineer or geologist as meeting the requirements of Title 27. If subsequent sampling of the background monitoring point(s) indicates significant water quality changes due to either seasonal fluctuations or other reasons unrelated to waste management activities at the site, the Discharger may request modification of the Water Quality Protection Standard.

The Water Quality Protection Standard shall be updated annually for each monitoring well using new and historical monitoring data.

2. Monitoring Parameters

Monitoring parameters are a select group of constituents that are monitored during each monitoring event that are the waste constituents, reaction products, hazardous constituents, and physical parameters that provide a reliable indication of a release from a waste management unit. The monitoring parameters for all waste management units are those listed in Tables I through III for the specified monitored medium.

3. Constituents of Concern (COCs)

The COCs include a larger group of waste constituents, their reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the waste management unit, and are required to be monitored every five years (Cal. Code Regs, tit. 27, § 20395 and 20420(g).). The COCs for all mining units at the facility are those listed in Tables I through II for the specified monitored medium, and Table III. The Discharger shall monitor all COCs every five years, or more frequently as required in accordance with a Corrective Action Program. The last 5-year COC report was submitted to the Central Valley Water Board in the *Final Report of Waste Characterization* (Holdrege & Kull, 29 December 2011) and 5-year COCs are due to be monitored again in 2016.

4. Concentration Limits

For a naturally occurring constituent of concern, the concentration limit for each constituent of concern shall be determined as follows:

a. By calculation in accordance with a statistical method pursuant to Title 27, section 20415(e)(8); or

b. By an alternate statistical method meeting the requirements of Title 27, section 20415(e)(8)(E).

The methods for calculating concentration limits shall be included in the *Water Quality Protection Standard Report* discussed in Section C.1 above.

5. Retesting Procedures for Confirming Evidence of a Release

If monitoring results indicate measurably significant evidence of a release, as described in Section IX “Provisions for Monitoring, B.12.b” of the SPRRs, then:

a. **Immediately** notify the Central Valley Water Board about any constituent or constituents verified to be present at the monitoring point, and follow up with written notification submitted by certified mail **within seven days** of validation; and.

b. Comply with section **X.A.b** of this document**, Response to a Release**, if any constituent or constituents were verified to be present.

c. Any analyte that triggers a discrete retest per this method shall be added to the monitoring parameter list such that it is monitored during each regular monitoring event.

6. Point of Compliance

The point of compliance for the water standard at each waste management unit is a vertical surface located at the hydraulically downgradient limit of the Unit that extends through the uppermost aquifer underlying the unit. The following are monitoring locations at the point of compliance:

Cell or Module	Point of Compliance Monitoring Wells
Mining Units 1 through 4	MW-4 and MW-5

7. Compliance Period

The compliance period for each waste management unit shall be the number of years equal to the active life of the unit plus the closure period. The compliance period is the minimum period during which the Discharger shall conduct a water quality monitoring program subsequent to a release from the waste management unit. The compliance period shall begin anew each time the Discharger initiates an evaluation monitoring program. (Cal. Code Regs., tit. 27, § 20410.)

8. Monitoring Points

A monitoring point is a well, device, or location specified in the waste discharge requirements, which monitoring is conducted and at which the water quality protection standard applies. The monitoring points for each monitored medium are listed in Section A of this MRP.

D. TRANSMITTAL LETTER FOR ALL REPORTS

A transmittal letter explaining the essential points shall accompany each report. At a minimum, the transmittal letter shall identify any violations found since the last report was submitted, and if the violations were corrected. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter. The transmittal letter shall also state that a discussion of any violations found since the last report was submitted, and a description of the actions taken or planned for correcting those violations, including any references to previously submitted time schedules, is contained in the accompanying report. The transmittal letter shall contain a statement by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate, and complete.

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

Original signed by

Ordered by: _____

PAMELA C. CREEDON, Executive Officer

8 June 2012

VJI/JSH

TABLE I

GROUNDWATER DETECTION MONITORING PROGRAM

Parameter	Units	Sampling Frequency	Reporting Frequency
Field Parameters			
Groundwater Elevation	Ft. & 100ths, M.S.L.	Quarterly	Semiannual
Temperature	^{o}F	Semiannual	Semiannual
Electrical Conductivity	umhos/cm	Semiannual	Semiannual
pH	pH units	Semiannual	Semiannual
Turbidity	Turbidity units	Semiannual	Semiannual
Monitoring Parameters			
General Minerals			
Total Dissolved Solids (TDS)	mg/L[1]	Semiannual	Semiannual
Total Alkalinity, dissolved	mg/L	Semiannual	Semiannual
Chloride, dissolved	mg/L	Semiannual	Semiannual
Carbonate, dissolved	mg/L	Semiannual	Semiannual
Bicarbonate, dissolved	mg/L	Semiannual	Semiannual
Nitrate/Nitrite (as N), dissolved	mg/L	Semiannual	Semiannual
Sulfate (as SO_4), dissolved	mg/L	Semiannual	Semiannual
Calcium, dissolved	mg/L	Semiannual	Semiannual
Magnesium, dissolved	mg/L	Semiannual	Semiannual
Potassium, dissolved	mg/L	Semiannual	Semiannual
Sodium, dissolved	mg/L	Semiannual	Semiannual
Metals			
Antimony, dissolved	ug/L[2]	Semiannual	Semiannual
Arsenic, dissolved	ug/L	Semiannual	Semiannual
Iron, dissolved	ug/L	Semiannual	Semiannual
Manganese, dissolved	ug/L	Semiannual	Semiannual
Mercury, dissolved	ug/L	Semiannual	Semiannual
Thallium, dissolved	ug/L	Semiannual	Semiannual
5-Year Constituents of Concern (see Table III)			

[1] Milligrams per liter
[2] Micrograms per liter

TABLE II

SURFACE WATER DETECTION MONITORING PROGRAM

Parameter	Units	Sampling Frequency[1]	Reporting Frequency
Field Parameters			
Electrical Conductivity	umhos/cm	Semiannual	Semiannual
pH	pH units	Semiannual	Semiannual
Turbidity	Turbidity units	Semiannual	Semiannual
Flow to Waters of U.S.	Yes or No	Semiannual	Semiannual
Monitoring Parameters			
General Minerals			
Total Suspended Solids (TSS)	mg/L	Semiannual	Semiannual
Total Settleable Solids	mg/L	Semiannual	Semiannual
Chloride, total	mg/L	Semiannual	Semiannual
Carbonate, total	mg/L	Semiannual	Semiannual
Bicarbonate, total	mg/L	Semiannual	Semiannual
Nitrate/Nitrite (as N), total	mg/L	Semiannual	Semiannual
Sulfate (as SO_4), total	mg/L	Semiannual	Semiannual
Calcium, total	mg/L	Semiannual	Semiannual
Magnesium, total	mg/L	Semiannual	Semiannual
Potassium, total	mg/L	Semiannual	Semiannual
Sodium, total	mg/L	Semiannual	Semiannual
Metals			
Antimony, dissolved	ug/L	Semiannual	Semiannual
Arsenic, dissolved	ug/L	Semiannual	Semiannual
Iron, dissolved	ug/L	Semiannual	Semiannual
Manganese, dissolved	ug/L	Semiannual	Semiannual
Mercury, dissolved	ug/L	Semiannual	Semiannual
Thallium, dissolved	ug/L	Semiannual	Semiannual
Oil and Grease	ug/L	Semiannual	Semiannual
5-Year Constituents of Concern (see Table III)			

[1] Semiannual surface water monitoring is required twice per year when there is water present at the designated surface water monitoring point any time during the reporting period (1 January to 30 June or 1 July to 31 December). Reporting shall include whether there was flow from the facility to waters of the U.S. when the samples were collected.

TABLE III

5-YEAR COCs & APPROVED USEPA ANALYTICAL METHODS

Groundwater (dissolved):	**USEPA Method**
Aluminum	6010B
Antimony	6020
Arsenic	6020
Barium	6020
Cadmium	6020
Chromium	6020
Cobalt	6020
Copper	6020
Iron	6010B
Lead	6020
Manganese	6020
Mercury	7470A
Nickel	6020
Selenium	7742
Silver	6020
Thallium	6020
Vanadium	6020
Zinc	6020

Surface Water (total):	**USEPA Method**
Aluminum	6020
Antimony	6020
Arsenic	6020
Barium	6020
Cadmium	6020
Chromium	6020
Cobalt	6020
Copper	6020
Iron	6020
Lead	6020
Manganese	6020
Mercury	7470A
Nickel	6020
Selenium	7742
Silver	6020
Thallium	6020
Vanadium	6020
Zinc	6020

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER R5-2012-0057
CALIFORNIA NATURAL RESOURCES CORPORATION,
MAURICE ALTSHULER AND BARTLETT BURNAP,
MINING, PROCESSING, AND RECLAMATION
FRENCH CORRAL MINE
NEVADA COUNTY

California Natural Resources Corporation (facility owner and operator) and Maurice Altshuler and Bartlett Burnap (landowners), collectively referred to as "Discharger", own and operate the French Corral Mine (the "Facility") in Nevada County. On 15 March 2012, the Discharger submitted a Report of Waste Discharge (ROWD) for the Facility. The information in the ROWD has been used to develop these waste discharge requirements (WDRs). The ROWD and supporting documents contain information related to construction, operations, and closure of the Facility.

The facility is on a 65-acre property at 21235 Pleasant Valley Road. The French Corral Mine is a surface placer gold mine. Surface mining operations were conducted at this facility during the 1980s under prior waste discharge requirements. Since 1993, the facility has been idle. The proposed mining operation includes excavation of the undisturbed tertiary gravels and existing placer tailings by mobile mining equipment and transportation to the processing plant by truck or conveyor. Processing of the gold bearing material is performed by conventional washing, scrubbing, and gravity separation using water and screening. Gold is removed by a physical separation process. No use of chemicals such as cyanide or mercury is proposed.

The proposed mining rate is approximately 155,000 cubic yards per year through 2016. Process water will be retained in unlined settling ponds. No discharge of process water off-site is proposed. Reclamation will generally be performed concurrently with mining. The mining waste has been classified as Group C as defined by California Code of Regulations, title 27 ("Title 27"), § 22480. Regulations set forth in Title 27 which establishes prescriptive standards for construction of Mining Units and containment are not applicable for Group C mining wastes. 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

Low density residential and agricultural properties are located in the facility vicinity. On-site facilities include: the tailings placement area (Mining Unit-1), Phase 1C mining area (Mining Unit-2), area between the Phase 1C mining area and the Phase 1A and 1B mining area (Mining Unit-3), and the Phase 1A and 1B mining area (Mining Unit-4).

The existing groundwater monitoring network for the facility consists of 1 upgradient background monitoring well and two downgradient monitoring wells. Results of groundwater sampling and analysis performed as part of the Characterization Report did not identify significant water quality concerns. Results of surface water sampling and analysis performed as part of the Characterization Report did not identify significant water quality concerns for surface water in Matthews Pond. Storm water runoff from the facility is routed to detention basins. Local surface drainage is to French Corral Creek which is a seasonal tributary to the South Fork of the Yuba River.

JSH

20 June 2012

California Natural Resources Corporation
Todd D. Bracken, Chairman of the Board
James W. Shue, President
1827 Lincoln Boulevard
Venice, CA 90921

CERTIFIED MAIL NO. 7012 0470 0000 9904 0047

Maurice Altshuler and Bartlett Burnap
PO Box 2194, Rancho Santa Fe, CA 92067

CERTIFIED MAIL NO. 7012 0470 0000 9904 0054

NOTICE OF ADOPTION
OF
WASTE DISCHARGE REQUIREMENTS ORDER
FOR
CALIFORNIA NATURAL RESOURCES CORPORATION
AND
MAURICE ALTSHULER AND BARTLETT BURNAP

MINING, PROCESSING, AND RECLAMATION
FRENCH CORRAL MINE
NEVADA COUNTY

TO ALL CONCERNED PERSONS AND AGENCIES:

Waste Discharge Requirements (WDRs) Order No. R5-2012-0057 for California Natural Resources Corporations French Corral Mine was adopted by the California Regional Water Quality Control Board, Central Valley Region at its meeting on 8 June 2012.

Although the WDRs allow waste discharges to the Group C Mining Units, the discharge is a privilege not a right and may be revoked at any time. A copy of the Order must be maintained at the facility and made available upon request. Please review your WDRs carefully to ensure you understand all aspects of the discharge requirements. Please note that the hereby ordered section of the WDRs require the Discharger to submit certain technical reports by the dates provided in the Order. These submittals include the items listed in the following table:

The Discharger shall submit:	**Due Date**
Within **six months of the adoption of this Order**, the Discharger shall submit for approval of the Executive Officer a Sampling and Analyses plan for on-going characterization of the waste rock to determine if the waste rock remains appropriately classified as Group C mining waste (see WDR Provision E.5.).	**8 December 2012**
A Water Quality Protection Standard Report within **one year** of adoption of this Order (see Monitoring Specification E.5.).	**8 June 2013**
Submit updated cost estimates and financial assurances for reclamation (Financial Assurance Specification D.2)	**By 1 June of each year.**
Submit ongoing characterizing of the mining waste (see WDR Provision E.6.).	**By 1 August of each year.**

In addition to technical reports required by the WDRs, the WDRs include a Monitoring and Reporting Program (MRP), which contains specified monitoring and reporting requirements for you to implement. Please review the MRP closely so that you may establish the appropriate sampling schedule.

To conserve paper and reduce mailing costs, a paper copy of the order has been sent only to the Discharger. The full text of this order is available on the Central Valley Water Board's web site at www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/. Anyone without access to the Internet who needs a paper copy of the order can obtain one by calling Central Valley Water Board staff listed below.

If you have any questions about making changes to your permitted operations, please contact Jeff Huggins at (916) 464-4639 or jhuggins@waterboards.ca.gov. All compliance and enforcement questions, technical reports, and monitoring reports should be directed to Mr. Huggins.

Original signed by

VICTOR J. IZZO
Senior Engineering Geologist
Title 27 Permitting and Mining

Enclosures- Adopted Order
Standard Provisions (February 2009)

cc list: see next page

cc w/o Encl:

Tod Herman, Senior Planner Nevada County Planning Department, Nevada City
Bret Koehler, Senior Engineering Geologist, Office of Mine Reclamation, Sacramento
Jason Muir, Principle Engineer Holdrege & Kull, Nevada City
Leslie Graves, Division of Water Quality, SWRCB, Sacramento
Kent Smith, Department of Fish and Game, Region 2, Rancho Cordova
Patrick Pulupa, Office of Chief Counsel, SWRCB, Sacramento