

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2012-0102

WASTE DISCHARGE REQUIREMENTS  
FOR  
PERGRAND PROPERTIES, LLC  
AND  
ENVIRONMENT RESTORATION AND RECLAMATION COMPANY, LLC  
CARR MINE  
BUTTE COUNTY

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

1. Environment Restoration and Reclamation Company, LLC submitted a Report of Waste Discharge (ROWD), dated 25 May 2012 for the operation of the Carr Mine, a placer gold mine, in Butte County. Supplemental information was submitted on 27 June 2012 and 27 July 2012 for the discharge of sediment laden process water to a settling pond. Regional Board staff deemed the ROWD complete on 27 July 2012. The approximately 200-acre property is owned by Pergrand Properties LLC and is comprised of Assessor's Parcel Numbers 059-200-011, 059-210-006 and 059-210-007. Pergrand Properties LLC, and Environment Restoration and Reclamation Company, LLC are referred to hereafter "Discharger."
2. The mine is in the remote mountainous region of northern Butte County, approximately 20 miles north of the community of Paradise, in Sections 9 and 6, Township 25N, Range 5E, MDB&M, as shown in Attachment A, a part of this Order. The latitude and longitude of the facility is 40° 01' 50" North and 121° 25' 18" West.
3. The Carr Mine has been in intermittent operation since the late 1800's under various ownerships. The mine itself encompasses 39-acres of the 200 acre property. Excavation of about 19 acres of undisturbed land will follow the subsurface extent of a paleochannel traversing the top of the project parcels (the active mining area); phased reclamation is proposed for both the 19-acre active mining area and some 15 acres of existing surface disturbance resulting from past mining activities.
4. The active mining operations will proceed in 14 phases and are expected to last 15 years. Mining will be confined to one phase at a time with current tailings being used to reclaim the last phase. The mining process

- is shown in Attachment B, a part of this Order, and is as follows: Existing duff will be removed and stockpiled, vegetation removed, chipped and added to duff pile. Topsoil will then be stripped and stockpiled near the excavation. Excavation of overburden and ore will be completed using bucket type excavator to a maximum depth of 65 feet bgs, but varying per phase. Ore bearing material will be transported by end loader to the adjacent portable gold recovery plant. The plant will use mechanical means and process water to separate heavy gold bearing minerals from the placer deposits. The heavy gold bearing minerals will be collected and further processed and the gold concentrated with additional water and jigs, sluices, and vibratory tables. No chemicals will be used in the mineral recovery system. The resulting tailings comprised of clays, silts, sands, and gravels, are stockpiled for reclamation or immediately placed in the open mine pit from the previous phase for reclamation. The Operations Plan estimates that a total of 1,031,237 cubic yards of material will be excavated and returned to the mine over the life of the project.
5. The process water pond, designated as Catch Basin 1b on Attachment B, is an existing onsite pond created by previous mining activity. Process water will be pumped from this pond for the mineral recovery circuit. After use, the process water will be returned to Catch Basin 1b where the entrained solids will be settled out and the water recycled back into the system. A maximum volume of 24,000 gallons per day will be recycled through the mineral recovery circuit. Makeup water will be obtained as necessary from an on-site storm water settling pond.
  6. Due to the elevation of the facility (6,500 feet) and remoteness, the site is inaccessible during the winter and spring due to snow depths which can reach up to 25 feet. The mine plans to operate from late spring to late fall as the weather and access allows, commonly from June through October. At the end of the operating season, excess water, if any, remaining in the process water pond will be land applied to the surrounding forest to gain adequate capacity for the winter storm season.
  7. The site is at the northern edge of the Sierra Nevada geomorphic province. The placer gold deposits are from the ancestral Feather River system. Shale bedrock and barren rock rubble is present over some of the site, with much of the property being forest land.

### WASTE CHARACTERIZATION

8. California Code of Regulations, Division 2, Title 27, Subchapter 1, Article 1, §22480 (Title 27), 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.”*
9. Testing of soil samples in Catch Basin 2a which contains tailings from past operations showed minimal amounts of arsenic exist in the site soils. Typical shale deposits may contain 12.0 milligrams/kilogram (mg/kg) of arsenic and some gold ores may have values as high at 5000 mg/kg. The soil samples taken from Catch Basin 2a contained arsenic at concentrations of 5.2 mg/kg and neutral pH values. Based on the above information, the tailings are classified as a Group C mining waste.
10. The project is not proposing any permanent petroleum fuels storage on-site. Fueling is accomplished by truck bed mounted tank with a capacity of approximately 200 gallons which is exempt from regulation under the Aboveground Petroleum Storage Act. The Discharger reports that, apart from the mobile fuel storage, only minor quantities of lubricants are stored on-site.
11. There is no discharge of domestic wastes at the site. Workers are provided with portable toilets. Sanitary facilities, if proposed, shall be constructed and maintained in conformance with the requirements of the Butte County Environmental Health Division, and be used only for domestic waste.

### SURFACE WATER AND GROUND WATER CONDITIONS

12. Testing of runoff leaving the mine revealed pH values averaging 7.0. There is no evidence of mineralization or acid mine drainage in the area.
13. Groundwater in the vicinity of the mine is limited and eventually surfaces in Philbrook Creek 2,500 feet downslope. The nearest residences are

- seasonal cabins near Philbrook Reservoir, approximately two miles away, who derive their water supply from local springs and will not be affected by the mining activity
14. Five soil borings were drilled to bedrock. Groundwater was present in two of the five borings. Geologic data and surface water information in combination with the observed groundwater data suggests that a groundwater gradient exists and that groundwater flows from the northwest to southeast and generally parallels the shale bedrock. Mining operations are not expected to penetrate the ground water table. No pumping of ground water for process water is proposed.
  15. The mine is located within the Philbrook Creek watershed which is tributary to the West Branch of the North Fork Feather River in Hydrologic Area 518.60. The West Branch of the North Fork Feather River is tributary to Lake Oroville.
  16. The Regional Board adopted a *Water Quality Control Plan, Fourth Edition, for the Sacramento River Basin and the San Joaquin River Basin* (hereafter Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for protecting waters of the basin, including plans and policies adopted by the SWRCB and incorporated by reference into the Basin Plan. These requirements implement the Basin Plan.
  17. The Basin Plan does not specifically designate beneficial uses of Philbrook Creek, Philbrook Lake, or the West Branch of the North Fork Feather River. Based on the "tributary rule," the beneficial uses cited in this Order for Philbrook Creek and Philbrook Lake are those for Lake Oroville.
  18. By tributary rule to Lake Oroville, the beneficial uses of Philbrook Creek and Philbrook Lake are municipal and domestic supply; power generation, water contact recreation; non-contact water recreation; cold freshwater habitat; spawning, reproduction, and/or early development of fish; and wildlife habitat.
  19. The beneficial uses of underlying groundwater are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
  20. The average annual precipitation at the site is approximately 71 inches per the Goodridge Butte County Precipitation Report and confirmed using Weatherreports.com which shows 55.7 inches of rain and 153.6 inches of snow with a water content of 1" water per every 10" snow.
  21. Average annual free water surface evaporation is approximately 45 inches per NOAA Technical Report NWS 33. Snow sublimation is estimated at

approximately 20% of annual precipitation or 14 inches. Sublimation rate is based on published studies by Marks & Dozier (1992) and Kattelmann and Elder (1991) of Sierra Nevada snow Sublimation.

22. State Water Resources Control Board Resolution No. 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereafter Resolution 68-16) prohibits degradation of groundwater unless it has been shown that:

- a. The degradation is consistent with the maximum benefit to the people of the State;
- b. The degradation will not unreasonably affect present and anticipated beneficial uses;
- c. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives; and
- d. The discharger employs best practicable treatment and control (BPTC) to minimize degradation

23. The Discharger conducted an anti-degradation analysis in the ROWD that evaluated the potential impacts of the discharge on groundwater quality. The size of the active mining area and process water pond is only a few acres. The process water pond will capture storm water and snowmelt. The pond is excavated into low permeability material which allows for limited infiltration. Further, buildup of the clay and silt sized material in the bottom and sides of the pond from the mineral recovery process will serve to further reduce infiltration of process water to ground water. The potential buildup of salts in the process water pond will be limited due to low evaporation rates at the site resulting from the high elevation and low temperatures, and inclusion of water and accompanying soluble minerals into the pit backfill during concurrent reclamation of the site. Further, the aerial extent of the process water pond in relation to the ground water basin is minuscule. Groundwater in the vicinity of the mine is not used and recharges Philbrook Creek 2,500 feet downslope. The nearest residences are seasonal cabins near Philbrook Reservoir, approximately two miles away, who derive their water supply from local springs and will not be affected by the mining activity.

Based on the above, the limited infiltration of water from the process water pond will not result in any measureable groundwater degradation. Therefore, the discharge is consistent with the Anti-degradation Policy.

24. Section 13267(b) of the California Water Code (CWC) states, in part, that

- “In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste outside of its region that could affect the quality of waters of the state within its region shall furnish under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs of these reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”* The reports required by Monitoring and Reporting Program No. R5-2012-0102 are necessary to assure compliance with these waste discharge requirements. The Discharger operates facilities that discharge wastes subject to this Order.
25. Federal Regulations for storm water discharges were promulgated by USEPA on November 16, 1990 (40 CFR Parts 122, 123, and 124) which require specific categories of facilities discharging storm water associated with industrial activity to obtain NPDES permits and to implement Best Available Technology Economically Achievable and Best Conventional Pollution Control Technology to reduce or eliminate industrial storm water pollution.
26. The State Water Resource Control Board (SWRCB) adopted Order No. 97-03-DWQ (General Permit No. CAS000001), on April 17, 1997, specifying waste discharge requirements for discharge of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent (NOI) by industries to be covered by the permit. The operator has submitted the NOI and is currently covered by the General Permit.
27. Butte County was the lead agency for the project under the California Environmental Quality Act (CEQA, Public Resources Code Section 21000, et. seq.). The County adopted a Mitigated Negative Declaration on 26 July 2012 for this project in accordance with CEQA and issued Use Permit No. MIN11-0001. As a responsible agency, the Board finds that the project as approved by Butte County will not have a significant effect on water quality.
28. The discharge authorization herein is exempt from the requirements of

Title 27 CCR, Section 20005 et seq. (hereafter Title 27). The exemption, pursuant to Section 20090(b), is based on the following:

- a. The Central Valley Water Board is issuing these waste discharge requirements.
- b. The discharge complies with the Basin Plan; and
- c. The wastewater does not need to be managed according to title 22 CCR, Division 4.5, Chapter 11, as a hazardous waste.

29. Based on the limited volume of the discharge, the seasonal nature of the discharge, the use of excess process water at the end of the year for moisture conditioning of the backfill or land application to the surrounding forest below agronomic rates to regain pond capacity for the winter/spring inactive period (100-year annual precipitation plus the 25-year, 24-hour storm event), the character of the waste (Group C mining waste), and the site-specific soil and groundwater conditions, the discharge has minimal potential to degrade groundwater quality. Therefore, shallow groundwater monitoring is not necessary unless the discharge changes significantly or new information regarding the threat to groundwater quality becomes available. However, it is appropriate to require that the Discharger not allow the salinity of the wastewater to increase, and to require that the Discharger develop and implement a Salinity Control Plan in the event of a significant increase in salinity in the process water

30. Assurances of financial responsibility to cleanup foreseeable releases from this facility are required based on:

- a. The facility is inaccessible during the winter and early spring when rain-on-snow events and high surface water runoff are expected and surface water control structures are vulnerable to damage,
- b. The site is at a high elevation which experiences high precipitation events
- c. Past history with previous owner/operators contains instances of large scale sediment releases
- d. Both the owner and operator are Limited Liability Companies with unknown assets available to respond to large scale discharges of sediment into the pristine surface waters.

31. The Regional Board has considered the information in the attached Information Sheet in developing the Findings of this Order. The attached Information Sheet is part of this Order.

32. The Regional Board has notified the Discharger and interested agencies

and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written comments and recommendations.

33. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

**A. Discharge Prohibitions**

1. The discharge of wastes and process water to surface waters or surface water drainage courses is prohibited.
2. The discharge of wastes and process water in a manner different than specified in Findings numbers 4 and 5 is prohibited.
3. The use of flocculating agents or other chemical additives in any part of the process is prohibited.
4. The discharge or deposit of waste other than process water and settled solids to the process water pond is prohibited.
5. The discharge of wash water except to the process water pond and to land application as allowed for in Discharge Specifications No.7 & 8 is prohibited.
6. The discharge of wash water or accumulated surface water to the process water pond when freeboard is less than two feet is prohibited, except if lesser freeboard does not threaten the integrity of the pond, no overflow of the pond occurs, and the lesser freeboard is due to direct precipitation or storm water runoff occurring as a result of annual precipitation with greater than a 100-year recurrence interval, or a storm event with an intensity greater than a 25-year, 24-hour storm event.
7. Discharge of waste classified as "hazardous" as defined in Section 2521(a) of Title 23, CCR, Section 2510, et seq., or "designated," as defined in Section 13173 of the CWC, is prohibited.
8. Mining excavations shall not extend below the highest seasonal

groundwater elevation.

9. All areas not identified on the site plan as areas designated for extraction, stockpiles, processing equipment, structures, settling ponds, parking, roads, etc. shall be designated as non-disturbance areas. No vegetation removal, grading, stockpiles, equipment storage, building of structures, or other disturbance shall take place in the designated non-disturbance areas.
10. There shall be no sidecasting of any soil, overburden and/or rock, and no vegetation removal or other disturbance in non-disturbance areas.

**B. Discharge Specifications**

1. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the activity area.
2. All stockpiled products, wastes, and overburden materials shall be managed to prevent erosion of sediment to surface water drainage courses.
3. Dams, levees, and other earthworks intended to hold or convey water shall be designed and constructed under the direct supervision of and certified by a California Registered Civil Engineer or Certified Engineering Geologist having expertise in the design of such earthworks.
4. Catch Basin 1b shall be designed, constructed, operated and maintained to prevent inundation or washout due to floods with return period of 100 years.
5. Catch basin 1b shall have sufficient capacity to accommodate allowable process water flow and design seasonal precipitation and ancillary inflow to prevent inundation or washout during winter months and not encroaching into the required two feet freeboard. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns plus the 25-year, 24-hour storm event.
6. The discharger shall install and maintain a pond water freeboard gauge so freeboard can be readily assessed.
7. Excess process water present in Catch Basin 1b at the end of the seasonal operations may be land applied to the surrounding forest at

agronomic rates (Specific Conductivity not greater than 700  $\mu\text{mhos/cm}$ ) to gain capacity to meet the Discharge Specification 6.

8. The land application of excess process water shall not result in the discharge of water or the transport of sediment to surface water drainage courses. The excess water shall not be applied to barren slopes or bedrock, but to vegetated areas with sufficient soil to absorb the discharge and not result in visible runoff.
9. On or about October 15 of each year, the Discharger shall provide documentation that the process water pond (Catch Basin 1b) has available storage capacity at least equal the volume necessary to comply with Discharge Specifications B. 6. The documentation shall consist of a statement by a Licensed Civil Engineer attesting to the pond's capacity and bear the signature and the professional stamp of the Licensed Civil Engineer.
10. Except for recycled process water and solids removed from the process water pond (Catch Basis 1b) and used to backfill the mined excavation, the discharge shall remain within the process water pond at all times.
11. Fines removed from the process water pond or settling ponds shall be stored or placed in a manner that prevents erosion and migration of the material.

### **C. Groundwater Limitations**

1. The discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality.

### **D. Financial Assurances**

1. The Discharger shall obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known and reasonable foreseeable releases from the mine in an amount approved by the Executive Officer, and shall submit the financial assurance mechanism to the Executive Officer for approval prior to commencing mining operations.

### **E. Provisions**

1. **By 1 December 2012**, the Discharger shall submit a copy of its most

recent Site Reclamation Plan if it differs from the April 2011 Operations Overview and Reclamation Plan. As the reclamation plans are updated or revised, the Discharger shall immediately forward such plans to this office.

2. The Discharger shall maintain continuous coverage under the Water Quality Order No. 97-03-DWQ, the *General Permit for Dischargers of Storm Water Associated with Industrial Activities*, or, if Order No. 97-03-DWQ is renewed, the most current version.
3. The Discharger shall comply with Monitoring and Reporting Program No. R5-2012-0102, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
4. In the event of any change in control or ownership of land or waste discharge facilities described herein, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Regional Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the proposed 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.
5. The Discharger shall immediately notify the Regional Water Board by telephone whenever a violation of these WDRs or an adverse condition that may impair water quality occurs as a result of the extraction operations or the discharge; written confirmation shall follow within two (2) weeks.
6. The Discharger shall report promptly to the Board any material change or proposed change in the character, location, or volume of the discharge. The Discharger shall obtain confirmation from the Board that such proposed modifications are acceptable under the terms of these WDRs. Confirmation or new WDRs shall be obtained before any modifications are implemented. If the Executive Officer does not disapprove the proposed change within 60 days of receiving a written

report describing the proposed change, the discharger may proceed in accordance with the proposed modifications. Possible changes under these WDRs include, but are not limited to, the need to expand the settling basins and/or the need to use flocculating agent in the settling ponds.

7. The requirements of all concerned governmental agencies having jurisdiction by law including, but not limited to, the issuance of appropriate permits shall be met.
8. A copy of all reports required by this Order shall be forwarded to the Butte County Department of Resource Management.
9. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
10. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
11. The Regional Board will review this Order periodically and will revise requirements when necessary.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 04 October 2012.

*Original signed by*

**PAMELA C. CREEDON**, Executive Officer

PVW: jmtm  
10/09/2012

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2012-0102

WASTE DISCHARGE REQUIREMENTS  
FOR  
PERGRAND PROPERTIES LLC  
AND  
ENVIRONMENT RESTORATION AND RECLAMATION COMPANY, LLC  
CARR MINE  
BUTTE COUNTY

The Discharger shall not implement any changes to this Program unless and until the Regional Board or Executive Officer issues a revised Monitoring and Reporting Program.

**PROCESS WATER POND MONITORING**

The Discharger's process water system used to wash the placer deposits and separate the gold and heavy minerals includes a pond for storage of process water and tailings (Catch Basin 1b) as shown on Attachment B. Samples of the process water shall be representative of the contents of the pond and shall be collected at the frequency and analyzed for the constituents listed below.

| <u>Constituent/Parameter</u> | <u>Units</u>   | <u>Sampling Frequency</u>                       |
|------------------------------|----------------|---|
| Freeboard                    | Feet, 0.1 Feet | Weekly <sup>1</sup>                             |
| Electrical Conductivity      | µmhos/cm       | July 1, September 1,<br>November 1 <sup>2</sup> |
| Arsenic                      | µg/l           | July 1, September 1,<br>November 1 <sup>2</sup> |

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<sup>1</sup> Sampling of freeboard shall be required only when the mine is operational from the spring to fall.

<sup>2</sup> Samples designated for November shall be obtained at the end of the operating season, regardless of the date mining operations cease.

**REPORTING**

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements.

Monitoring reports shall be submitted to the Regional Board by the **15<sup>th</sup> day of the month** following data collection.

The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Regional Board in the next regularly scheduled report.

A copy of all monitoring reports shall be forwarded to the Butte County Department of Resource Management.

Upon written request of the Regional Board, the Discharger shall submit a report to the Regional Board by 30 January of each year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the Discharger shall discuss the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with the waste discharge requirements. The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by:

*Original signed by*

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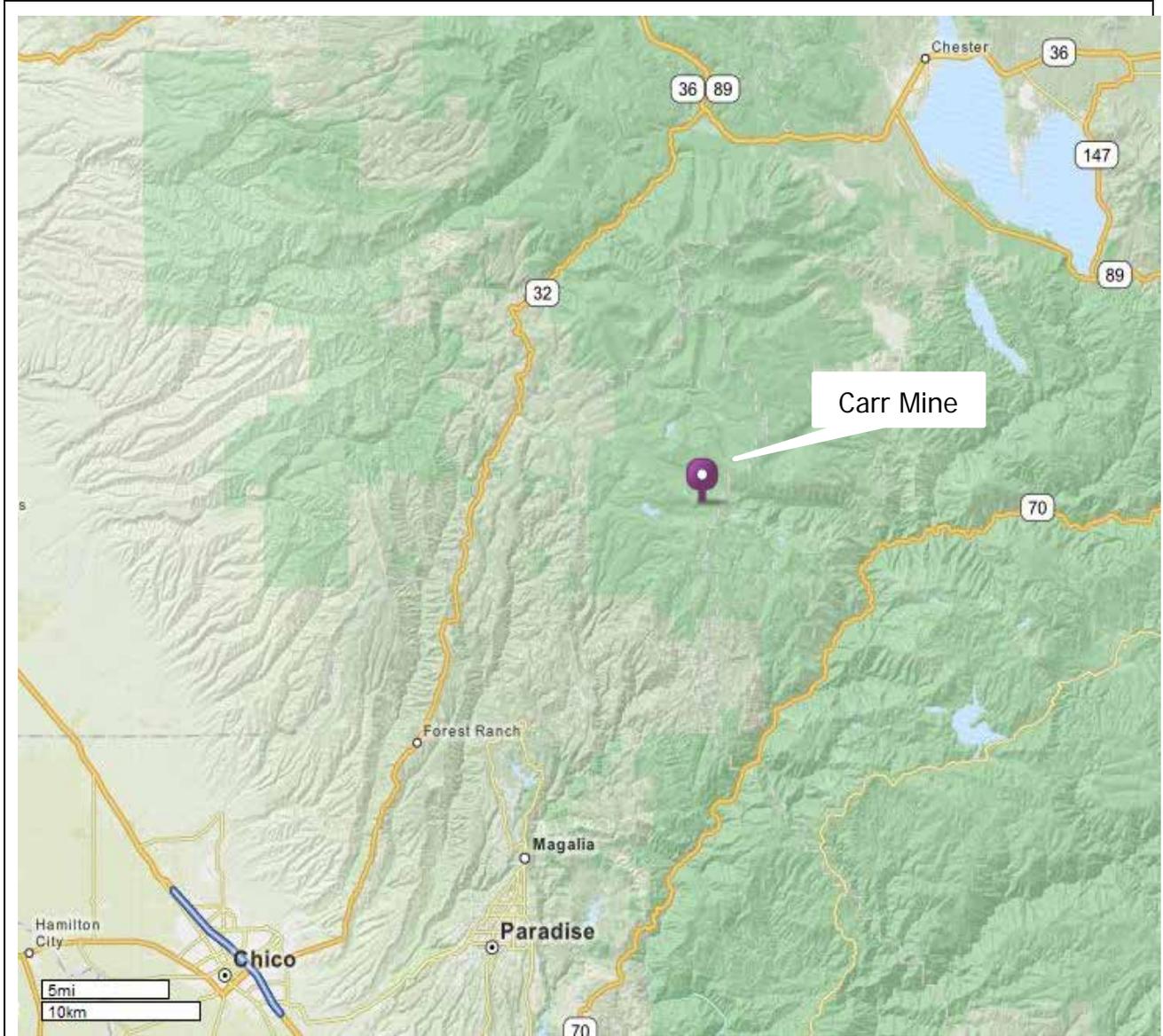
**PAMELA C. CREEDON**, Executive Officer

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**4 October 2012**

DATE

PVW: jmtm  
10/09/2012

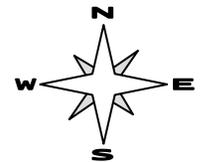


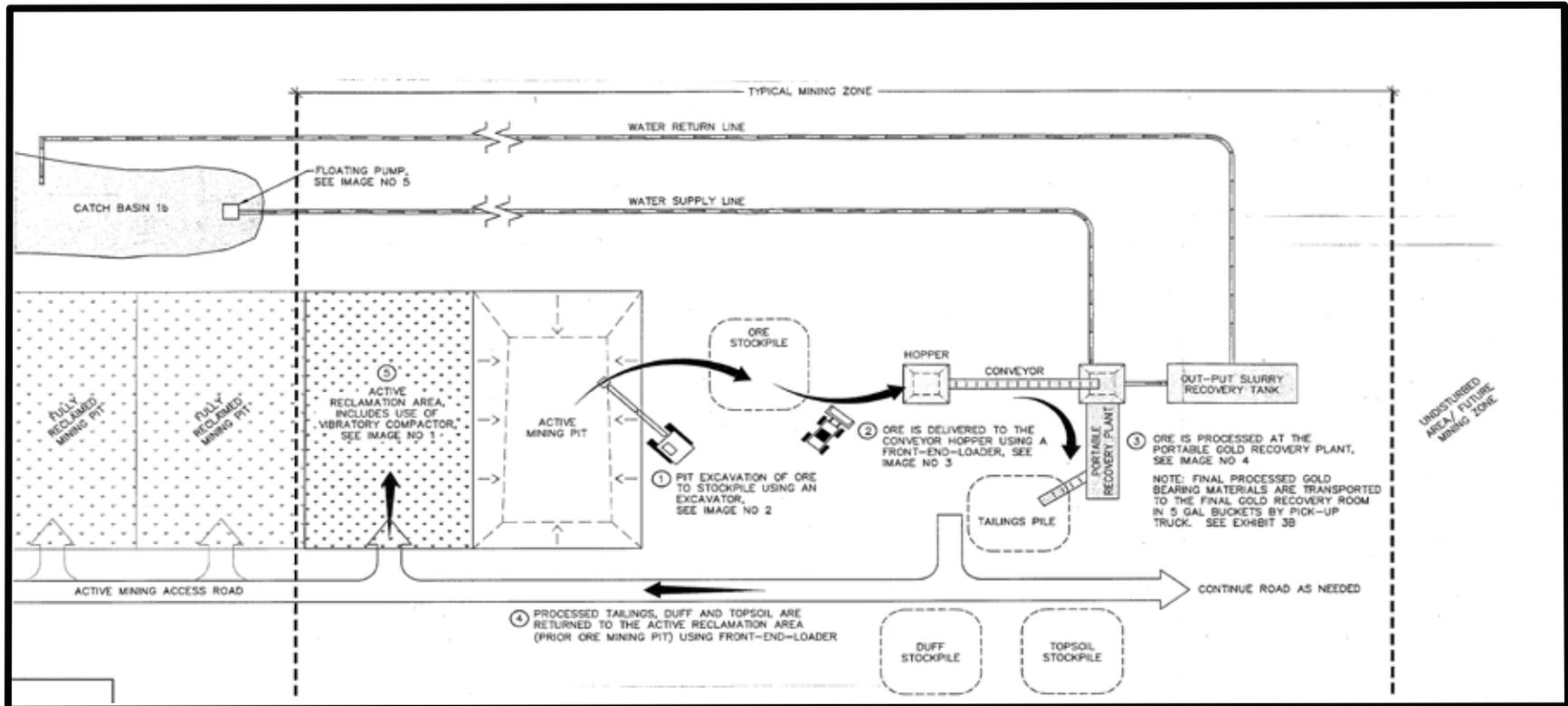
**SITE LOCATION MAP**

Pergrand Properties, LLC and  
Environment Restoration and Reclamation Company, LLC

CARR MINE

Butte County





**SCHEMATIC OF MINING PROCESS**

Pergrand Properties LLC and  
Environment Restoration and Reclamation Company, LLC  
Carr Mine  
Butte County

## INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2012-0102  
PERGRAND PROPERTIES LLC, AND  
ENVIRONMENT RESTORATION AND RECLAMATION  
COMPANY, LLC  
CARR MINE  
BUTTE COUNTY

Pergrand Properties LLC, and Environment Restoration and Reclamation Company, LLC propose to re-open the Carr Mine, an existing but abandoned placer gold mine in the remote mountains of northern Butte County. The mine itself is on 39-acres of the 200 acre property. Excavation of about 19 acres of undisturbed land will follow the subsurface extent of a paleochannel traversing the top of the project parcels (the active mining area); phased reclamation is proposed for both the 19-acre active mining area and some 15 acres of existing surface disturbance resulting from past mining activities.

If this Order is adopted, the site will be regulated by the following two orders: 1) this Order regulating the placer mining operations, and 2) Water Quality Order No. 97-03-DWQ regulating storm water discharges from the entire 200-acre facility. The site is also regulated under Butte County Use Permit No. MIN11-0001.

The active mining operations will be separated into 14 phases and are expected to last 15 years. Mining will be confined to annual increments of one to two acres at a time with current tailings being used to reclaim the previous excavation. Excavation of overburden and ore will be completed using bucket type excavator to a maximum depth of 65 feet bgs, but varying per phase. Ore bearing material will be transported by end loader to the adjacent portable gold recovery plant. The plant will use mechanical means and process water to separate heavy gold bearing minerals from the placer deposits. The heavy gold bearing minerals will be collected and further processed and the gold concentrated with additional water and jigs, sluices, and vibratory tables. No chemicals will be used in the mineral recovery system. The resulting tailings comprised of clays, silts, sands, and gravels, are stockpiled for reclamation or immediately placed in open mine pit for reclamation. The Operations Plan estimates that a total of 1,031,237 cubic yards of material will be excavated and returned to the mine over the life of the project.

Up to 24,000 gallons of water will be recycled through the gold recovery process to separate the clay, silt, sand, and gravel from the gold bearing minerals. The water and tailings, classified as a Group C mining waste, will be contained in a one acre pond with no discharge to surface waters. The source of the process water will be storm water only. The pond is sized to hold the precipitation expected from the 100-year annual precipitation plus the 25-year, 24 hour storm event without overtopping.

Due to the elevation of the facility (6,500 feet) and remoteness, the site is inaccessible during the winter and spring due to snow depths up to 25 feet. The mine plans to operate from late spring to late fall as the weather and access allows, commonly from June through October. Excess water in the process water pond remaining at the end of the annual operation period will be land applied to the surrounding forest below the agronomic rates for Specific Conductivity to gain pond capacity for the upcoming winter storm season.

Surface water drainage is to Philbrook Creek which is tributary to the West Branch of the North Fork Feather River and then to Lake Oroville.

The process water pond will be monitored regularly for freeboard and electrical conductivity to ensure compliance with pond freeboard requirements and evaluate the salinity of the pond.

PVW: jmtm