CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER R5-2016-0710
FOR

MINERAL RESOURCES LLC AND MRLLC INVESTORS LP

MORRIS RAVINE QUARRY
1342 CHEROKEE ROAD
ASSESSOR PARCEL 041-300-003-000
OROVILLE
BUTTE COUNTY

This Order is issued to Mineral Resources, LLC and MRLLC Investors, LP (hereafter collectively referred to as Dischargers) based on provisions of Water Code section 13304, which authorizes the Central Valley Regional Water Quality Control Board (Central Valley Water Board) to issue a Cleanup and Abatement Order (Order), and Water Code section 13267, which authorizes the Central Valley Water Board to require the preparation and submission of technical and monitoring reports.

The Assistant Executive Officer finds, with respect to the Dischargers' acts, or failure to act, the following:

1. This Order requires the Dischargers to clean up and abate the effects of storm water runoff that has deposited sediment, soil, rock, and earthen material into Morris Ravine Creek and any unnamed tributaries of the Thermalito Diversion Pool, which is tributary to the Feather River. This Order requires investigation and cleanup in compliance with the Water Code, the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, Fourth Addition, revised April 2016 (Basin Plan), State Water Resources Control Board Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304* (Resolution 92-49), and other applicable State and Regional Water Board plans, policies, and regulations.

2. This Order finds that Mineral Resources, LLC and MRLLC Investors, LP are responsible parties and are jointly and severally liable for complying with the requirements set forth herein.

    a. Per records from the Butte County Assessor-Recorder's Office, MRLLC Investors, LP owns 241 acres identified as Assessor Parcel Number 041-300-003-000. This is the location of Morris Ravine Mine Quarry (hereafter Facility) operated by Mineral Resources, LLC. The Facility is located at 1342 Cherokee Road in south-central Butte County in Section 29, Township 20N, and Range 4E, MDB&M; in the vicinity of latitude 39°33'55" and longitude -121°32'45". Mineral Resources, LLC began processing mined material in November 2002.

    b. Mineral Resources, LLC mines and processes silica sand and recycles process water through settling ponds located in a saddle on the north side of the Facility. The mine and processing facility are on land owned by MRLLC Investors, LP. Process water discharged to the ponds is high in suspended solids. Once the solids have settled, the clarified process water is conveyed from the settling ponds to the processing plant for reuse. Settled material will periodically be removed from the ponds and stockpiled for use in land reclamation. Surface water drainage is to Morris Ravine, a tributary to the Feather River. Morris Ravine Creek and its tributaries are considered waters of the state, as well as waters of the United States.

c. The Discharger's mining operations are regulated by Waste Discharge Requirements (WDRs) Order R5-2003-0096. Mineral Resources, LLC (WDID# 5R04I016040) is responsible for compliance with the NPDES General Permit for Storm Water Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (Industrial Storm Water Permit) which regulates discharges of storm water associated with industrial activities.

3. The Dischargers operate the Facility, which is a 240-acre silica mine. The Facility is on the south side of Table Mountain and north of the Thermalito Diversion Pool in south-central Butte County. Mining, grading, and trenching activities occur above Morris Ravine Creek which is an intermittent tributary of the Thermalito Diversion Pool, a tributary to the Feather River. The Facility is approximately 1.3 miles upstream of the Thermalito Diversion Pool.

4. The Facility has a storm water retention pond named C-Pond. Morris Ravine Creek, which originates out of C-Pond (latitude 39°33'48" and longitude -121°32'54") flows generally in a south southeasterly direction and is crossed by three bridges located at 1100 Cherokee Road, Oregon Gulch Road and the Brad Freeman Trail before it discharges into the Thermalito Diversion Pool.

5. The Facility elevation on the eastern flank (active mining face) is approximately 945 feet above mean sea level (MSL), which represents the highest elevation associated with the Facility. The northern part of the Facility has numerous clay waste ponds, a boneyard, and a mechanic's shop. The elevation of the northern part of the Facility is approximately 830 feet MSL. As you travel north to south and from east to west, the Facility elevation declines. The southern boundary of the active mining, exposed/disturbed soils, spoils, reject materials and overburden area has an elevation of 775 feet MSL on the eastern side down to 610 feet MSL on the western side. C-Pond is located in the southwestern corner of the Facility and is at the lowest elevation of the Facility at approximately 545 feet MSL – all storm water drainages were designed to discharge to this location.

6. A storm water diversion trench was constructed within the last year to capture all run-on storm water. This trench routes storm water in two different directions (to the north and to the south from the highest elevation on the eastern flank). Storm water directed north travels by the waste water settling ponds, and through a series of on-site drainages and road side ditches, flowing by the boneyard and mechanic's shop, and down the access road to the eastern side of the Facility entry road. Storm water in this drainage travels back towards the processing plant and eventually discharges into a culvert pipe that goes underneath the access road, south of the scale house. The storm water follows the C-Pond access road and finally discharges into the northern side of C-Pond. C-Pond discharges directly into Morris Ravine Creek, as noted above. The storm water directed south goes around the active mining face, exposed/disturbed soils, spoils, clay wastes, reject materials and overburden area and eventually discharges into C-Pond.

7. The majority of the storm water is routed to the south storm water diversion trench. The south storm water diversion trench does not capture all of the storm water that comes into contact with areas of disturbed soils at the Facility and thus during storm events, sediment-laden storm water is discharged to receiving waters from the southern flank of the Facility into waters of the United States without entering C-pond.

8. Mineral Resources, LLC operates a silica mine that includes clearing, grading, and trenching activities at this Facility. These mining activities expose soil, which causes soil, sediment, and earthen materials to enter storm water that is discharged into surface waters from the Facility. The Dischargers, through the activities detailed below, created or threaten to create conditions of pollution in waters of the United States, unreasonably impacting water quality and beneficial uses.

a. Unauthorized Discharges to Morris Ravine Creek

i. The Dischargers have developed a Storm Water Pollution Prevention Plan (SWPPP) that is inadequate to ensure that pollution and nuisance will not occur. The SWPPP that was submitted to the Board pursuant to the requirements of the Industrial Storm Water Permit did not accurately reflect current site conditions or adequately discuss specific erosion and sediment control Best Management Practices (BMPs) that had been deployed at the Facility. Additionally, the site maps submitted did not accurately reflect the current Facility operations or configuration. Without a current SWPPP, it is unclear whether a complete evaluation of potential pollutant sources has been conducted and whether the BMPs employed are effective to reduce or prevent pollutants in industrial storm water discharges.

ii. On 2 October 2015, Central Valley Water Board staff conducted a routine inspection at the Facility to determine compliance with the Industrial Storm Water Permit. Central Valley Water Board staff observed many areas within the Facility (waste clay spoils, overburden, reject material, finished product, internal roads, roadside drainage ditches and other areas of soil disturbance) that did not have effective stabilization or perimeter controls to stop or contain erosion or sediment transport offsite. The storm water diversion trench was being constructed at that time, exposing more areas of soil disturbance and overburden. The bottom and side walls of the trench were exposed to storm water and were not stabilized. The storm water diversion trench on the south side of the Facility would not capture all storm water that would come into contact with the disturbed areas on the south side of the Facility. Thus, on the southern downhill side of the south flank of the storm water diversion trench there was no erosion control protection, leaving this area exposed to storm water, resulting in uncontrolled erosion and discharge of sediment-laden storm water offsite. There was a silt fence perimeter control deployed at the bottom of the hill that was in disrepair, dilapidated, and not maintained, which ineffectively contained storm water runoff.

iii. On 7 October 2015, Central Valley Water Board staff observed during a routine compliance inspection that overburden materials along the southeastern boundary of the property lacked adequate slope stabilization and erosion control measures, which resulted in illegal discharges to waters of the U.S.

iv. On 11 March 2016, Central Valley Water Board staff responded to a citizen complaint that Morris Ravine Creek and the Thermalito Diversion Pool were extremely turbid and muddy. Downstream of the Facility, Morris Ravine Creek was visibly turbid while Goods Creek to the east was flowing much clearer indicating that the Facility was discharging sediment to Morris Ravine Creek. Photographs were taken to document the difference in water color between Morris Ravine Creek and Goods Creek (Background). Background water quality sample was obtained from the process ponds. Samples from the C-Pond indicate that the waste water was very turbid and was discharging turbid waste water (846 Nephelometric Turbidity Units (NTU)) to Morris Ravine Creek. Background sample was 44.1 NTUs. Central Valley Water Board staff as before observed that large amounts of sediment had accumulated in C-Pond. The sediment came from the storm water diversion trench and the interior areas of the Facility that had not been properly stabilized (Attachment C - 11 March 2016 Inspection Report).

v. There are significant problems with the storm water diversion trench that are resulting in discharges to surface waters. On 15 March 2016, Central Valley Water Board staff utilized a helicopter to conduct aerial surveillance over the Facility. A large sediment fan was observed where Morris Ravine Creek discharges into the Thermalito Diversion Pool. The sediment fan was white to gray in color and differed drastically from the observed native soils surrounding Morris Ravine Creek (much of the native soils are brown/orange in color and are predominately clay). The southern boundary of the Facility is comprised of sand material that was processed from the Facility and is unconsolidated and highly erodible fill material. The storm water diversion trench was constructed in this unconsolidated and highly erodible material. The downhill slope area on the southern boundary not serviced by the storm water diversion trench did not have any erosion control BMPs deployed and numerous erosion rills and gullies were observed. At the toe of the southern boundary slope, Board staff observed numerous areas where an existing silt fence had been over topped with the eroded sand material producing sediment fans heading down slope towards Morris Ravine Creek.

Two breaches of the storm water diversion trench were also observed, one breach was located on the higher elevation southeastern portion of the trench. This breach occurred when large amounts of rock and sediment filled this portion of the trench, causing the diverted storm water to overtop the southern wall of the trench creating a very large erosional gully. Storm water running through this gully caused a discharge, containing additional sediment and earthen materials, to enter the unnamed tributaries to Morris Ravine Creek. The second breach was observed at a lower elevation closer to C-Pond. This breach also appeared to have been caused by rock and sediment accumulating in this portion of the storm water diversion trench, causing the diverted storm water to overtop the southern wall of the trench, which created another large erosional gully through the fill material, discharging sediment-laden storm water to unnamed tributaries to Morris Ravine Creek.

The entire southern boundary of the Facility not served by the storm water diversion trench has no erosion control BMPs deployed. During rain events, sediment-laden storm water will continue to runoff into Morris Ravine Creek from this area.

The entire Facility has significant gully erosion on the many steep slopes within the area served by the storm water diversion trench, and no erosion or sediment control BMPs were deployed. This allowed for massive sediment transport downhill to the C-Pond, inundating it with huge sediment fans which are severely compromising the capacity and functionality of the pond to receive and retain storm water and allow sediment to fall out of suspension before it is discharged to Morris Ravine Creek (Attachment D - 15 March 2016 Aerial Surveillance Inspection Report).

vi. On 16 March 2016, Central Valley Water Board staff conducted a complaint inspection based on an email correspondence from employees at the Feather River Fish Hatchery (FRFH). The complaint stated that highly turbid and increased settleable solid loads were coming from above the FRFH water intake located in Thermalito Diversion Pool. The FRFH water intake is downstream from where Morris Ravine Creek discharges into the Thermalito Diversion Pool. At the Facility, Central Valley Water Board staff observed that the storm water flow in the diversion trench from the east side of the Facility that discharges from a culvert above C-Pond actively eroded the C-Pond access road. This resulted in additional sediment discharge into the

northern side of the C-Pond, decreasing C-Pond's holding capacity for storm water retention. Central Valley Water Board staff observed that C-Pond was actively discharging to Morris Ravine Creek, and obtained a storm water sample of the discharge and a sample of the storm water within C-Pond (23.2 NTU & 53.6 NTU respectively).

vii. The table below contains the samples results taken on 16 March 2016. The results show elevated Electro Conductivity (EC), Total Suspended Solids (TSS), and Turbidity in areas influenced by discharge from the Facility. All concentrations are below the Numeric Action Levels (NALs) as listed in the Industrial Storm Water Permit. The Oregon Gulch Bridge and Brad Freeman Bridge samples (downstream locations), show higher levels of TSS and Turbidity than the C-Pond Discharge and Bob Smith Bridge (upstream locations). These results reflect the slower movement of water at the lower bridge locations, indicating that suspended solids are present in greater concentrations where there is less current.

TSS and Turbidity results are higher in the C-Pond and the Pond at the entrance to the facility than in the Morris Ravine Creek sampling locations. The average TSS concentration for the four Morris Ravine Creek locations is 15.55 mg/L, or seven times greater than the average TSS concentration measured for the Thermalito Diversion Pool. The average Turbidity concentration of the four Morris Ravine Creek samples is 23.9 NTU, or three times greater than the Turbidity of the Thermalito Diversion Pool (Attachment E - 16 March 2016 Inspection Report).

Location	pH (pH units)	EC (umhos/cm)	TSS (mg/L)	Turbidity (NTU)
C-Pond Discharge	7.99	238	10.2	23.2
C-Pond	7.95	233	28.7	53.6
Pond at Entrance to MR	7.06	49	35.0	456
Inflow to Entrance Pond	7.69	142	8.8	25.2
Bob Smith Bridge(MRC)	8.12	250	6.6	18.8
Oregon Gulch Bridge (MRC)	8.11	220	29.6	32.4
Brad Freeman East (TDP)	7.65	82	2.0 J	7.9
Brad Freeman Bridge (MRC)	8.12	206	15.8	21.2
Brad Freeman West (TPD)	7.70	80	2.4 J	7.9

viii. On 16 March 2016 Central Valley Water Board staff conducted a stream survey of Morris Ravine Creek below the Facility to document the channel conditions and compare to natural channel conditions. The survey indicated that sediment deposited within Morris Ravine Creek differed drastically from the native soils surrounding Morris Ravine Creek. Central Valley Water Board staff determined, based on the physical characteristics of the sediment deposits, that the sediment deposits are sourced from the Facility located at the headwaters of Morris Ravine Creek (Attachment F – 16 March 2016 Stream Survey Inspection Report).

b. The acts described in this Order are considered violations of the following provisions of WDRs Order R5-2003-0096:

Discharge Prohibitions Provision A.1. of the WDRs states, "The discharge of wastes and process water to surface waters or surface water drainage courses is prohibited."

Discharge Specifications Provision B.3 of the WDRs states, “All stockpiled products, wastes, and overburden materials shall be managed to prevent erosion of sediment to surface water drainage courses.”

Provision D.7 of the WDRs states, “The Discharger shall immediately notify the 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.”

c. The acts described in this Order are considered violations of the following provisions of the Industrial Storm Water Permit:

Discharge Prohibition III.C of the Industrial Storm Water Permit states, “Industrial storm water discharges and authorized Non-Storm Water Discharges (NSWD) that contain pollutants that cause or threaten to cause pollution, contamination, or nuisance as defined in section 13050 of the Water Code, are prohibited.”

Effluent Limitations V.A. of the Industrial Storm Water Permit provides, “Dischargers shall implement BMPs that comply with the BAT/BCT requirements of this General Permit to reduce or prevent discharges of pollutants in their storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.”

Storm Water Pollution Prevention Plan X.A. provides, “Dischargers shall develop and implement a site-specific SWPPP for each industrial facility covered by this General Permit that shall contain . . . Annual Comprehensive Facility Compliance Evaluation.”

9. The Basin Plan designates beneficial uses, establishes water quality objectives, contains implementation programs for achieving objectives, and incorporates by reference plans and policies adopted by the State Water Resources Control Board. Morris Ravine Creek is tributary to Thermalito Diversion Pool and hence the Feather River. Identified as the Marysville Hydrologic Unit, Lower Feather River Hydrologic Sub Area 515.40. Existing and potential beneficial uses for Thermalito Diversion Pool include the following: Municipal & Domestic Supply (MUN); Agricultural Irrigation Supply (AGR); Water Contact (REC-1) & Canoeing and Rafting (REC-1); Other Non-contact Recreation (REC-2); Warm (WARM) & Cold (COLD) Freshwater Habitat; Warm and Cold Migration of Aquatic Organisms (MIGR); Warm and Cold Spawning (SPWN); and Wildlife Habitat (WILD). Beneficial uses of any specifically-identified water body generally apply to all of its tributaries.

10. Beneficial uses of the underlying groundwater are municipal and domestic supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO).

11. The Basin Plan lists specific water quality objectives for inland surface waters. These objectives set limitations on increased turbidity, sediment, settleable and suspended material, and temperature as follows:

Turbidity

Discharges shall not cause turbidity increases in surface water to exceed:

a) where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTU;
b) where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU;
c) where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;

d) where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
e) where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent

Sediment

The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

Settleable Material

Waters shall not contain substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial use.

Temperature

The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial use.

12. The State Water Board has adopted Resolution 92-49, which is included as Appendix 9 of the Basin Plan. Resolution 92-49 sets forth the policies and procedures to be used during an investigation and cleanup of a polluted site, and requires that cleanup levels be consistent with State Water Board Resolution No. 68-16, the *Statement of Policy with Respect to Maintaining High Quality Waters in California* (Resolution 68-16). Resolution 92-49 requires the waste to be cleaned up in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable, if background levels of water quality cannot be restored. Any alternative cleanup level to background must: (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board. Resolution 92-49 directs that investigations proceed in a progressive sequence. To the extent practical, it directs the Regional Water Board to require and review for adequacy written work plans for each element and phase, and the written reports that describe the results of each phase of the investigation and cleanup.

13. "Waste" is defined by Water Code section 13050, subdivision (d) as,

> sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing , or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Sediment, when discharged to waters of the state, is a "waste" as defined in Water Code section 13050. The Dischargers have discharged waste directly into surface waters which are tributaries of Thermalito Diversion Pool. The beneficial uses of Thermalito Diversion Pool discussed above also apply to all its tributaries.

14. "Pollution" is defined by Water Code section 13050, subdivision (l)(1) as,

> an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:
>
> i. The waters for beneficial uses;
>
> ii. Facilities which serve these beneficial uses

The Dischargers' mining operations, land disturbances, and trenching at the Facility and their failure to prepare, deploy, inspect, maintain and update the SWPPP erosion and sediment control BMPs have resulted in unauthorized discharges of waste into surface waters and surface water

drainage courses and have created, and/or create or threaten to create, a condition of pollution by unreasonably affecting the beneficial uses of waters of the state.

a. Discharges of sediment and other inert material threaten habitat for aquatic species dependent upon native sediment and vegetation characteristics (MIGR, SPWN, WARM, and WILD). Sediment-laden storm water discharges to and the resulting turbidity within surface waters can also affect the recreational and aesthetic enjoyment of the surface waters (REC-1, REC-2).

b. Suspended sediment in surface waters can cause harm to aquatic organisms by abrasion of surface membranes, interference with respiration, and sensory perception in aquatic fauna. Suspended sediment can reduce photosynthesis in and survival of aquatic flora by limiting the transmittance of light. The Basin Plan contains a water quality objective for sediment which concludes that the suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. As stated above, sediment is a pollutant that can have substantial biological, chemical, and physical effects on receiving waters. These include (1) increased turbidity (loss of clarity) and resulting decreased light transmittance, biological productivity, and aesthetic value; and (2) physical suffocation of bottom dwelling (benthic) organisms. Sediment can also physically clog gills causing fish mortality; reduce reproduction; impair commercial and recreational fishing resources; increase water temperature, and fill in lagoons and wetlands converting them from aquatic to terrestrial habitat. It should be noted that these water quality impacts occur both during sediment transport and sediment deposition. In addition to the problems associated with “clean” sediment, sediment is also an excellent transport mechanism for toxics elements (i.e., metals and synthetic organics), which bind to sediment particles and may cause mortality in aquatic species (REC-1, REC-2, WARM and WILD).

16. Water Code section 13304(a) states, in relevant part:

> Any person who has discharged or discharges waste into waters of this state in violation of any waste discharge requirements or other order to prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and causes, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts….Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.

Untreated storm water from property owned and/or operated by the Dischargers has discharged, and threatens to discharge, sediment and other wastes into Morris Ravine Creek, causing or threatening to cause pollution. Erosion control measures implemented by the Dischargers have not and will not fully protect disturbed areas of the Facility from further erosion. It is unknown at this time how much fill material has been discharged and/or remains in Morris Ravine Creek. Cleanup and abatement action is necessary to ensure that the pollution caused by the Dischargers’ noncompliance is cleaned up, that threatened unauthorized discharges from the Facility are prevented, and that any impacts to beneficial uses are mitigated.

17. Water Code section 13267(b) states, in relevant part:

> In conducting an investigation … 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 waste 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 report 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 burden of preparing the reports required by this Order bears a direct relationship for the need for the reports and the benefits to be obtained from the reports. The technical reports required by this Order are necessary to ensure compliance with this Order and to protect the waters of the United States. The technical reports are further necessary to demonstrate that appropriate methods will be used to cleanup waste discharged to surface waters and surface water drainage courses and to ensure that cleanup complies with Basin Plan requirements. In accordance with Water Code section 13267(b), the findings in this Order provide the Dischargers with a written explanation with regard to the need for remedial action and reports and identify the evidence that supports the requirement to implement clean up and abatement activities and submit the reports. The Dischargers named in this Order own and/or operate the site from which waste was discharged, and thus are appropriately responsible for providing the reports required by this Order.

18. Issuance of this Order is an enforcement action taken by a regulatory agency to enforce the regulatory provisions of the Basin Plan, and is exempt from the provisions of the California Environmental Quality Act (CEQA)(Pub. Resources Code, § 21000 et seq.) in accordance with California Code of Regulations, title 14, section 15321. To the extent that this Order enforces terms of the Industrial Storm Water Permit, issuance of this Order is exempt from the provisions of the CEQA pursuant to Water Code section 13389 (*Pacific Water Conditioning Ass'n, Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.). This action may also be considered exempt because it is an action by a regulatory agency for the protection of natural resources (Cal. Code Regs., tit. 14, § 15307.) and an action by a regulatory agency for the protection of the environment (Cal. Code Regs., tit. 14, § 15308.). Should additional environmental review be required in connection with future discretionary regulatory actions at this site, the Board may recover the costs associated with preparing and processing environmental documents from the discharger. (Pub. Resources Code, § 21089.)

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13304 and 13267, Mineral Resources, LLC and MRLLC Investors, LP (Dischargers) shall cleanup and abate the impacts to water quality and shall submit technical and monitoring reports in accordance with the scope and schedule set forth below.

1. By **15 August 2016**, the Dischargers shall submit an updated Storm Water Pollution Prevention Plan (SWPPP) to the Board in accordance with the requirements in the Industrial Storm Water Permit, including, but not limited to, a detailed Facility map accurately depicting topography and surface water flow directions for all disturbed soils exposed to erosion; all product stockpiles, overburden materials, waste materials, reject materials, surface water courses, surface water drainages and conveyances, surface water diversions and water crossings, and identification of all locations where sediment has discharged to surface waters or surface water drainage courses.

2. By **15 August 2016**, the Dischargers shall submit an Action Plan to the Board. The Action Plan shall include a site evaluation and technical analysis addressing unauthorized discharges and threat of discharges from the Facility as described in this Order including, but not limited to:

   a. Breaches in and erosion of storm water diversion trenches.

   b. Areas that have caused sediment transport offsite and are susceptible to erosion at the Facility.

   c. The stabilization of all sediment transported offsite from the Facility.

   d. An assessment of C-Pond storage capacity and a plan and schedule for ongoing cleaning and maintenance to ensure it has adequate functionality during an 85th percentile 24-hour storm event. Address the C-Pond storage capacity by utilizing one of the following three methods: 1) the volume of runoff produced from an 85th percentile 24-hour storm event, as determined from local, historical rainfall records; 2) the volume of runoff produced by the 85th percentile 24-hour storm event, determined as the maximized capture runoff volume for the facility, from the formula recommended in the Water Environment Federation's Manual of Practice, or 3) the volume of annual runoff required to achieve 80% or more treatment, determined in accordance with the methodology set forth in the latest edition of California Stormwater Best Management Practices Handbook, using local, historical rainfall records. All hydrologic calculations shall be certified by a California licensed professional engineer.

   e. Using the above information, identify all areas of immediate concern, along with proposed emergency mitigation measures to be implemented at each area of concern necessary to stabilize the Facility during the summer of 2016, in advance of the 2016 wet season.

3. Beginning **15 September 2016**, the Dischargers shall submit a monthly monitoring report to the Board which shall include but not be limited to, a description of current site conditions and corresponding photographs, mitigation measures completed, and recommendations for additional measures or repairs to previously identified areas of immediate concern where appropriate. The Dischargers shall submit these monthly monitoring reports to the Board until instructed otherwise.

4. Central Valley Water Board staff will review the Action Plan and SWPPP in consultation with the Dischargers and other responsible agencies immediately upon receipt. **Once the Board concurs with the Action Plan, the Dischargers shall immediately begin to implement the Action Plan.** "Immediately" shall mean no later than 10 business days from the Board's concurrence.

5. By **15 September 2016**, the Dischargers shall provide a proposed Restoration, Mitigation, and Monitoring Plan (RMMP). The RMMP shall include, but not be limited to:

   a. An assessment of the impacts to Morris Ravine Creek and its unnamed tributaries, as well as the intermittent tributaries of the Thermalito Diversion Pool from the unauthorized activities must be completed by the appropriate qualified professional. The assessment must, at a minimum, address channel hydrology, bank erosion, riparian habitat and loss thereof, channel and hill slope stability, and locations where fill material has been placed or discharged; and shall include aerial photographs and/or satellite images, photographs, reports, topographic maps or drawings, etc., of Facility conditions prior to the discharge of sediment, soil, rock and earthen materials. Assessment findings shall serve as the basis for the RMMP.

b. The RMMP shall include plans for Facility and impacted resources restoration and proposed mitigation to restore beneficial uses by restoring the channel to pre-discharge conditions and minimize any further impacts to Morris Ravine Creek and its unnamed tributaries. Best management practices shall be applied to all current and planned work associated with construction activities at the Facility impacting, or having the potential to impact, Morris Ravine Creek and its unnamed tributaries.

c. The RMMP shall contain, at a minimum, design specifications and drawings, an implementation schedule, and a monitoring plan sufficient to restore beneficial uses to pre-discharge conditions. The RMMP shall incorporate use of appropriate native or endemic species in all re-vegetation efforts.

d. The Dischargers shall consult with all appropriate resource agencies to determine if removal of discharged pollutants from Morris Ravine Creek, its unnamed tributaries, and the Thermalito Diversion Pool (as proposed in the RMMP) will restore beneficial uses to pre-discharge conditions.

e. The implementation schedule in the RMMP shall include detailed project milestones that take into account the anticipated time to obtain all applicable local, state, and federal permits necessary to fulfill the requirements of this Order. For example, California Fish and Game Code section 1602 requires a person or entity to notify CDFW before: 1) substantially diverting or obstructing the natural flow of a river, stream, or lake; 2) substantially changing the bed, channel, or bank of a river, stream, or lake; 3) using any material from the bed, channel, or bank of a river, stream, or lake; and/or 4) depositing or disposing of debris, waste, material containing crumbled, flaked, or ground pavement where it may pass into a river, stream, or lake. The Dischargers may need to provide such a Notification of Lake or Streambed Alteration to the California Department of Fish and Wildlife prior to performing the work required herein.

f. Implementation of the RMMP must be completed no later than **1 January 2017**.

6. **No later than 30 days after concurrence** by the Central Valley Water Board, the Dischargers shall begin implementing the RMMP.

7. By **1 November 2016**, or a later date as specified in the implementation plan of the RMMP that has been approved by the Board, the Dischargers shall have completed all restoration and mitigation measures described in the proposed RMMP.

8. By **1 January 2017**, the Dischargers shall submit a Completion Report for the RMMP to the Board. The Completion Report shall accurately depict all construction and/or mitigation measures and document that the above plan to restore, compensate for, and minimize any further impacts to Morris Ravine Creek, its unnamed tributaries and the Thermalito Diversion Pool has been fully implemented.

9. By **October 1 of each year** (starting 1 October 2017), the Dischargers shall submit an annual monitoring report to the Board. The Annual Monitoring Report shall summarize monitoring results of RMMP and shall continue for at least two years depending upon hydrologic conditions and sample results. This requirement may be extended by the Assistant Executive Officer, after successful completion of the RMMP, or until a report, acceptable to the Assistant Executive Officer, is submitted showing the Dischargers have met the requirements of the RMMP.

GENERAL REQUIREMENTS AND NOTICES

10. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

11. All technical reports submitted by the Dischargers shall include a cover letter signed by the Dischargers, or a duly authorized representative, certifying under penalty of law that the signer has examined and is familiar with the report and that to their knowledge, the report is true, complete, and accurate. The Dischargers shall also state if they agree with any recommendations/proposals and whether they approve implementation of said proposals. Any person signing a document submitted under this Order shall make the following certification:

    I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

12. The Dischargers shall notify Board staff at least 48 hours prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection or that has not been fully described in the RMMP.

13. The Dischargers shall file a written report on any changes in the Facility's ownership or occupancy. This report shall be filed with the Central Valley Water Board no later than 30 days prior to a planned change and shall reference the number of this Order.

14. All monitoring reports, technical reports or notices required under this Order shall be submitted to:

    Scott A. Zaitz, R.E.H.S.
    364 Knollcrest Dr., Ste.205
    Redding, CA 96002
    530-224-4784

15. The Discharger shall obtain all applicable local, state, and federal permits necessary to fulfill the requirements of this Order prior to beginning the work.

16. Pursuant to Water Code section 13304, the Central Valley Water Board is entitle to, and may seek reimbursement for, all reasonable costs it actually incurs to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If directed by the Central Valley Water Board, the Dischargers shall enroll in the State Water Board's Cost Recovery Program and shall reimburse the State of California for all reasonable costs actually incurred by the Central Valley Water Board.

17. If for any reason, the Dischargers are unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted

pursuant to this Order and approved by the Assistant Executive Officer, the Dischargers may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. Any extension request shall be submitted as soon as a delay is recognized and prior to the compliance date. An extension may be granted by revision of this Order or by a letter from the Assistant Executive Officer. Extension requests not approved in writing by the Board with reference to this Order are denied.

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.

This Order is effective upon the date of signature.

Pamela C. Creedon, Executive Officer

7-13-2016

(Date)

Attachments:

A: 16 October 2015 Facility Inspection Report & Notice of Violation
B: 2 November 2015 Facility Inspection Report & Notice of Violation
C: 11 March 2016 Facility Inspection Report
D: 15 March 2016 Facility Aerial Surveillance Inspection Report
E: 16 March 2016 Facility Inspection Report
F: 16 March 2016 Morris Ravine Stream Survey Inspection Report