

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER R5-2014-0109

WASTE DISCHARGE REQUIREMENTS

FOR  
NEWMAN MINERALS, LLC AND EDWIN LANDS, LLC  
IRISH HILL QUARRY  
AMADOR COUNTY

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

1. On 22 November 2013, Newman Minerals, LLC submitted a Report of Waste Discharge (RWD) to apply for Waste Discharge Requirements for the Irish Hill Quarry (Quarry).
2. Newman Minerals, LLC (operator) and Edwin Lands, LLC (land owner) are hereafter jointly referred to as "Discharger" and are responsible for compliance with these Waste Discharge Requirements (WDRs).
3. The Quarry is located at 12300 Irish Hill Road, approximately one mile northeast of Lone (Section 11, T6N, R9E, MDB&M). The facility occupies Assessor's Parcel Numbers (APN) 005-060-013-000, as shown on Attachment A, which is attached hereto and made part of this Order by reference.
4. The Quarry has been operated without regulation under WDRs since approximately 1981. Currently, the facility is in operation under an Amador County Use Permit adopted in 1988.

**Existing Facility and Discharge**

5. The Discharger mines sand and gravel from gold-rush era dredge tailings deposited from 1860s through the early 1900s. The Quarry has an average production rate of approximately 600 to 1,000 tons per day. The maximum permitted annual production is 120,000 tons per year with a ten-percent exceedance allowed in non-consecutive years.
6. The site occupies approximately 90 acres on both sides of Dry Creek. The area on the east side of the Creek has already been mined. Currently only approximately 29 acres in the western side of the creek are active operation areas. The Quarry includes mining and stockpile areas, a Wash Plant, four wash water settling ponds, and a Water Storage Pond. A site plan is shown on Attachment B, which is attached hereto and made part of this Order by reference.
7. The Wash Plant includes rock crushers, screens, a trommel, pumps and a sand screw. The Wash Plant segregates mined materials into different size categories.

The finished products include landscape cobble, drain rock, concrete aggregate, and sand. All segregated materials are either sold or stockpiled onsite for reclamation.

8. All of the ponds are unlined. The RWD provided the following estimated data for the existing ponds.

<u>Pond</u>	<u>Surface area (Acres)</u>	<u>Max Depth (Feet)</u>	<u>Volume (MG)</u> <sup>1</sup>
Pond 1	0.15	10	0.5
Pond 2	0.22	10	0.7
Pond 3	0.18	10	0.6
Pond 4	0.20	10	0.7
<u>Water Storage Pond</u>	2.0	12	3.8

<sup>1</sup>. Based on two feet of freeboard.

9. Water for aggregate washing and dust control is pumped from the Water Storage Pond. The wash water runoff flows by gravity to the settling Ponds 1 through 4 in series. Water decanted from Pond 4 is returned to the Water Storage Pond for reuse. The washing process functions as a closed-loop and does not discharge wastewater from the site. Water is primarily lost from the operation through evaporation, adherence to processed materials, and pond percolation. The primary source of make-up water is onsite storm water runoff and water pumped from Dry Creek<sup>1</sup>. Water in the Water Storage Pond is composed of clarified water from Pond 4, water from Dry Creek and storm water. No chemicals are used in aggregate processing.
10. Settled fines are periodically excavated from the ponds when the thickness of sedimentation reaches approximately five feet. Sediment removed from settling ponds is placed on a drying pad located adjacent to the ponds. Water drained from the sediment flows by gravity back to the ponds. Dried sediment is stockpiled for sale as topsoil or is used for reclamation fill onsite.
11. The Quarry uses approximately 55 acre feet of water per year (49,000 gallons per day, gpd) for operation. Water recycled through the aggregate processing is 54,000 gpd as a daily peak flow and 24,000 gpd as a daily average. The average demand for make-up water is approximately 25,000 gpd.
12. Water samples from the Water Storage Pond were analyzed in April 2013. The analytical results for selected constituents are summarized below.

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<sup>1</sup> The Discharger has Riparian water rights that allow withdrawal of up to 55 acre-feet per year from Dry Creek.

<u>Parameter</u>	<u>Units</u>	<u>Water Storage Pond</u> <sup>1</sup>	<u>Potential Water Quality Objective</u>
Total Alkalinity	mg/L	130	--
Total Hardness as CaCO <sub>3</sub>	mg/L	180	--
Chloride	mg/L	14	106 <sup>2</sup> – 250 <sup>4</sup>
Specific conductivity	µmhos/cm	470	900 – 2,200 <sup>4</sup>
Fluoride	mg/L	0.6	--
Nitrate (NO <sub>3</sub> )	mg/L	4.1	45 <sup>3</sup>
pH	mg/L	8.3	6.5 – 8.5 <sup>4</sup>
Sulfate (SO <sub>4</sub> )	mg/L	74	250 <sup>4</sup>
Total Dissolved Solids	mg/L	270	450 <sup>2</sup> -1,500 <sup>5</sup>
Mercury	µg/L	<0.2	2 <sup>3</sup>
Arsenic	µg/L	8.4	10 <sup>3</sup>
Barium	µg/L	64	1,000 <sup>3</sup>
Calcium	mg/L	40	--
Chromium	µg/L	<20	50 <sup>3</sup>
Cobalt	µg/L	<20	--
Copper	µg/L	<20	1,000 <sup>4</sup>
Lead	µg/L	<50	15 <sup>3</sup>
Magnesium	mg/L	18	--
Nickel	µg/L	<20	100 <sup>3</sup>
Potassium	mg/L	2.2	--
Selenium	µg/L	<5	50 <sup>3</sup>
Silver	µg/L	<10	100 <sup>4</sup>
Sodium	mg/L	25	--
Thallium	µg/L	<10	2 <sup>3</sup>
Zinc	µg/L	22	5,000 <sup>4</sup>
Total Petroleum Hydrocarbons	mg/L	1.6	--

<sup>1</sup> Representative of recycled wash water blended with make-up water from onsite storm water and Dry Creek.

<sup>2</sup> Lowest Agricultural Water Quality Goal.

<sup>3</sup> Primary MCL.

<sup>4</sup> Secondary MCL.

<sup>5</sup> Short-Term Secondary Maximum Contaminant Level.

The above analytical results do not exceed potential water quality objectives.

Additional water samples from Pond 1 and Dry Creek (at the water intake) were analyzed for mercury in May 2013. The mercury concentrations in the settling Pond 1 and Dry Creek were 0.069 µg/L and 0.018 µg/L, respectively, which are less than the Primary MCL of 2 µg/L for mercury. A sediment sample collected from the settling Pond 1 in April 2013 contained 0.28 milligrams per kilogram of mercury, which is at low level and is not likely to cause degradation of water quality.

### **Proposed Changes in the Facility**

13. The Use Permit adopted in 1988 requires a 150-foot setback from Dry Creek and limits the depth of mining to ten feet above the mean bottom elevation of Dry Creek. On 14 November 2012, Amador County issued a Use Permit Amendment that adjusted the setback from Dry Creek and the mining depths. The 150-foot setback was adjusted to a new riparian setback (as close as approximately 50 feet from Dry Creek), as shown on Attachment B. The depth of mining will increase by approximately 10 to 15 feet, to approximately 257 feet above mean sea level (MSL), which is the approximate depth of the man-made sand and gravel dredge deposits.
14. The RWD states the current active mining area occupies approximately eight acres and is an average of approximately five feet below surrounding areas and acts as a storm water detention basin during storm events. Due to the setback adjustment and mining depth increase allowed by the Use Permit Amendment, the RWD indicates that the capacity of the storm water detention basin will increase. The active mining area will be expanded from eight acres to approximately 15 acres, and the mining depth will increase by approximately 10 to 15 feet. Therefore, the onsite storm water storage will increase from 40 to approximately 225 to 300 acre-feet.

### **Site-Specific Conditions**

15. Based on topographic maps, site elevations range from approximately 275 to 315 feet above MSL generally increasing from southeast to northwest.
16. Dry Creek is an intermittent stream and generally flows southwest. Groundwater flows to the creek during the wet months. Water in Dry Creek disappears as groundwater levels decrease to below the creek bed.
17. The facility is within the 100-year flood zone based on the Federal Emergency Management Administration Flood Insurance Rate Maps, with no flood elevation specified. However, the approximate elevation of the settling ponds is 284 feet above MSL, which is 22 feet higher than the Dry Creek channel. In addition, the Wash Plant and the Water Storage Pond are located at higher elevations than the settling ponds. Therefore, the onsite aggregate wash water system is unlikely to be inundated or washed out by floods with a 100-year return frequency.

18. The Quarry site is underlain by dredge tailings, which consist of poorly consolidated deposits of lean clay, silt, sand, and gravel. The tailings are likely derived from gravels within the Middle Eocene Lone Formation.
19. Annual precipitation in the vicinity averages approximately 23 inches, the 100-year total annual precipitation is approximately 40 inches, and the reference evapotranspiration rate is approximately 54 inches per year.
20. Surrounding land uses are primarily open chaparral lands, mining, and cattle grazing.
21. The Quarry does not have a septic system or other onsite domestic wastewater system.

### **Groundwater Considerations**

22. There are no groundwater monitoring wells onsite. Based on four exploratory borings drilled in July 2012, groundwater is relatively shallow at depths ranging from approximately 11 to 19 feet below existing grade (between approximately 267 and 274 feet MSL).

### **Basin Plan, Beneficial Uses, and Regulatory Considerations**

23. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Board. Pursuant to Water Code section 13263(a), waste discharge requirements must implement the Basin Plan.
24. Local drainage is to Dry Creek, a tributary of the lower Mokelumne River. The beneficial uses of the Mokelumne River, as stated in the Basin Plan, are municipal and domestic supply, irrigation, stock watering, contact recreation, other noncontact recreation, warm and cold freshwater habitat, warm migration, warm and cold spawning, and wildlife habitat.
25. The beneficial uses of underlying groundwater as set forth in the Basin Plan are municipal and domestic supply, agricultural supply, industrial service supply and industrial process supply.
26. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.

27. The Basin Plan's numeric water quality objective for bacteria requires that the most probable number (MPN) of coliform organisms over any seven-day period shall be less than 2.2 per 100 mL in MUN groundwater.
28. The Basin Plan's narrative water quality objectives for chemical constituents, at a minimum, require waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of the California Code of Regulations (hereafter Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
29. The narrative toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.
30. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in order to implement the narrative objective.
31. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as Water Quality for Agriculture by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an EC less than 700  $\mu\text{mhos/cm}$ . There is, however, an eight- to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis. It is possible to achieve full yield potential with waters having EC up to 3,000  $\mu\text{mhos/cm}$  if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.

### **Antidegradation Analysis**

32. State Water Resources Control Board Resolution 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 future 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 or control (BPTC) to minimize degradation.
33. Degradation of groundwater by some of the typical waste constituents associated with discharges from an aggregate mining facility is consistent with the maximum benefit to the people of the state. The economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and provides sufficient justification for allowing limited groundwater degradation that may occur pursuant to this Order.
  34. The Discharger has not monitored groundwater quality at the site. Therefore, it is not possible to determine pre-1968 groundwater quality.
  35. Based on one sampling event in April 2013 (Finding No.12), the listed constituent concentrations in the Water Storage Pond do not exceed potential water quality objectives. Constituents that might cause degradation of groundwater quality are discussed below.
    - a. Salinity. Evapoconcentration may cause some increase in the concentration of wash water that percolates to the water table, thereby increasing the salinity content of underlying groundwater, but this is not likely to cause unreasonable degradation of water quality.
    - b. Iron and Manganese. The RWD did not provide wash water data for iron and manganese. Reducing conditions may or may not occur in the ponds. Aquatic and marginal vegetation growth in any of the ponds could lead to anoxic and reducing conditions, as decaying organic material accumulates at the bottom of the ponds. Reducing conditions in combination with very small particle sizes present in the ponds could mobilize metals that are present in the natural mineral composition of the silts and clays. The Discharge Specifications in this Order require the Discharger to control pond vegetation to minimize the threat of reducing conditions.
  36. Based on the low threat to groundwater quality, this Order does not require groundwater monitoring. However, this Order imposes groundwater limitations that will ensure that discharges will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan. If additional information becomes available that indicates a significant threat to groundwater quality, groundwater monitoring may be required at some future date.
  37. The Discharger provides treatment and control of the discharge that incorporates the following:
    - a. No additives are used in materials processing.

### Other Regulatory Considerations

38. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
39. Based on the threat and complexity of the discharge, the facility is determined to be classified as 3C as defined below:
- a. Category 3 threat to water quality: "Those discharges of waste that could degrade water quality without violating water quality objectives, or could cause a minor impairment of designated beneficial uses as compared with Category 1 and Category 2."
  - b. Category C complexity, defined as: "Any discharger for which waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code not included in Category A or Category B as described above. Included are dischargers having no waste treatment systems or that must comply with best management practices, dischargers having passive treatment and disposal systems, or dischargers having waste storage systems with land disposal."
40. Title 27 of the California Code of Regulations (hereafter Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste. However, Title 27 exempts certain activities from its provisions. Discharges regulated by this Order are exempt from Title 27 pursuant to provisions that exempt domestic sewage, wastewater, and reuse. Title 27, section 20090 states in part:

The following activities shall be exempt from the SWRCB-promulgated provisions of this subdivision, so long as the activity meets, and continues to meet, all preconditions listed:

(b) Wastewater - Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leachfields if the following conditions are met:

- (1) the applicable RWQCB has issued WDRs, reclamation requirements, or waived such issuance;
- (2) the discharge is in compliance with the applicable water quality control plan;  
and
- (3) the wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

41. The discharge authorized herein, and the treatment and storage facilities associated with the discharge, are exempt from the requirements of Title 27 as follows:
- a. The Setting Ponds 1 through 4, and Water Storage Pond are exempt pursuant to Title 27, section 20090(b) because they are wastewater land discharge areas and:
    - i. The Central Valley Water Board is issuing WDRs.
    - ii. The discharge is in compliance with the Basin Plan, and;
    - iii. The treated effluent discharged to the ponds does not need to be managed as hazardous waste.

42. The State Water Board adopted Order 97-03-DWQ (NPDES General Permit CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities, and requiring submittal of a Notice of Intent by all affected industrial dischargers. Storm water discharges at the facility are regulated under NPDES General Permit CAS000001. Changes to the facility's storm water operations are anticipated; and the Dischargers must update the Storm Water Pollution Prevention Plan to reflect changes to the operations in compliance with the NPDES General Permit CAS000001.

43. Water Code section 13267(b) states:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposes to discharge 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. 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 technical reports required by this Order and the attached Monitoring and Reporting Program R5-2014-0109 are necessary to ensure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

44. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to Water Code section 13801, apply to all monitoring wells used to monitor the impacts of wastewater storage or disposal governed by this Order.

45. The action to adopt waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA), in accordance with the California Code of Regulations, title 14, section 15301.
46. A Mitigated Negative Declaration was certified by the Amador County Planning Department on 14 November 2012 in accordance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Mitigated Negative Declaration describes the project as a Use Permit Amendment for the Quarry. The Amendment adjusts the 150-foot setback to a new riparian setback (as close as approximately 50 feet from Dry Creek), and allows the mining depth increase by 10 to 15 feet to the approximate depth of the man-made sand and gravel dredger deposits.
47. The Initial Study/Mitigated Negative Declaration evaluated the potential impacts to groundwater quality and found that compliance with WDRs will ensure that impacts to water quality would be less than significant. Compliance with this Order will mitigate or avoid significant impacts to water quality.
48. Pursuant to Water Code section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

### **Public Notice**

49. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
50. The Dischargers and interested agencies and persons have been notified of the Central Valley Water Board's intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity to submit written comments and an opportunity for a public hearing.
51. All comments pertaining to the discharge were heard and considered in a public hearing.

**IT IS HEREBY ORDERED** that pursuant to Water Code sections 13263 and 13267, Newman Minerals, LLC and Edwin Lands, LLC, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted hereunder, shall comply with the following:

#### **A. Discharge Prohibitions**

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.

2. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 23, section 2510 et seq., is prohibited.
3. Discharge of waste classified as 'designated', as defined in CWC Section 13173, in a manner that causes violation of groundwater limitations, is prohibited.
4. Discharge of waste at a location or in a manner different from that described in the Findings is prohibited.
5. Discharge of toxic substances into the aggregate wash water system is prohibited.
6. Discharge of domestic wastewater to the aggregate wash water settling ponds is prohibited.
7. Use of chemical gold recovery methods including amalgamation, cyanide leaching, or any other chemical method is prohibited. Gold recovery using gravimetric methods is permissible.

#### **B. Discharge Specifications**

1. No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations of this Order.
2. The discharge shall not cause degradation of any water supply.
3. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
4. The discharge shall remain within the permitted waste treatment/containment structures at all times.
5. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
6. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
7. The Discharger shall operate and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. Unless a California Registered Civil Engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall

install and maintain in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.

8. The treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring continuous compliance with all requirements of this Order. 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.
9. On or about 1 October of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications 7 and 8.
10. All ponds (including the Water Supply Pond) shall be managed to prevent breeding of mosquitoes, reducing conditions, and conditions that favor methylation of mercury. Specifically:
  - a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.
  - b. Weeds shall be minimized through control of water depth, frequent removal, or herbicides.
  - c. Dead algae, vegetation, and debris shall not accumulate on or below the water surface.
11. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.
12. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.
13. Wastewater contained in any unlined pond shall not have a pH less than 6.5 or greater than 9.0.
14. Additional settling ponds and fines placement areas may be constructed as needed within the confines of the quarry and processing facility site as defined on Attachment B, and as allowed under the Conditional Use Permit.
15. All stockpiled products shall be managed to prevent erosion of sediment to surface water drainage courses.
16. Any waste material derived from gold recovery or quantification operations (such as laboratory assay) shall be contained and disposed of off-site at an appropriate facility.

17. Process wash water used for on-site dust control shall be used in a manner that will not cause erosion or discharge of sediment in storm water runoff to be discharged to areas not controlled by the Discharger.

### **C. Groundwater Limitations**

Release of waste constituents from any portion of the facility shall not cause groundwater to:

1. Contain constituents in concentrations that exceed either the Primary or Secondary MCLs established in Title 22 of the California Code of Regulations.
2. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

### **D. Provisions**

1. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Central Valley Water Board by **31 January**.
2. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.
3. The Discharger shall comply with Monitoring and Reporting Program R5-2014-0109, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.
4. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are

attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."

5. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
6. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.
7. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.
8. As described in the Standard Provisions, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
9. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."
10. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.
11. At least **90 days** prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with this Order, the

Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.

12. In the event of any change in control or ownership of the 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.
13. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the CWC. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.
14. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
15. The Central Valley Water Board will review this Order periodically and will 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](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 that the foregoing is a full true, and correct copy of an Order adopted by the California Regional Water Quality Control Board on 8 August 2014.

Original signed by Ken Landau for

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PAMELA C. CREEDON, Executive Officer

LF: 5/7/14

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2014-0109

NEWMAN MINERALS, LLC AND EDWIN LANDS, LLC  
IRISH HILL QUARRY  
AMADOR COUNTY

This monitoring and reporting program (MRP) incorporates requirements for monitoring the ponds, wastewater, and water supply. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revision is issued by the Executive Officer.

All wastewater samples shall be representative of the volume and nature of the discharge. The time, date, and location of each sample shall be recorded on the sample chain of custody form. Field test instruments (such as pH and dissolved oxygen) may be used provided that:

1. The operator is trained in the proper use and maintenance of the instrument;
2. The instruments are field calibrated prior to each use;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

**POND MONITORING**

The Water Storage Pond and all setting ponds shall be inspected weekly and monitored as follows:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Freeboard <sup>1</sup>	feet ( $\pm 0.1$ )	Measurement	Weekly	Quarterly
Odors	--	Observation	Weekly	Quarterly
Berm seepage <sup>2</sup>	--	Observation	Weekly	Quarterly
Presence of algae, emergent and marginal plants	--	Observation	Weekly	Quarterly

<sup>1</sup> Freeboard shall be measured vertically from the surface of the pond water to the lowest elevation of the surrounding berm and measured to the nearest 0.1 feet.

<sup>2</sup> Containment levees shall be observed for signs of seepage or surfacing water along the exterior toe of the levees. If surfacing is found, then a sample shall be collected and tested for electrical conductivity.

## WASTEWATER MONITORING

The Discharger shall establish a quarterly sampling schedule for wastewater monitoring such that samples are obtained approximately every three months. Samples shall be collected from the Water Storage Pond and monitored as follows:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
pH	pH units	Grab	Quarterly	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Quarterly	Quarterly
Manganese <sup>1</sup>	mg/L	Grab	Quarterly	Quarterly
Iron <sup>1</sup>	mg/L	Grab	Quarterly	Quarterly
Arsenic <sup>1</sup>	mg/L	Grab	Quarterly	Quarterly

<sup>1</sup> Samples shall be filtered prior to digestion, preservation, and analysis.

## REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

### A. Quarterly Monitoring Reports

Quarterly monitoring reports shall be submitted to the Central Valley Water Board by the 1st day of the second month after the quarter (i.e. the January-March quarterly report is due by May 1st) each year. At a minimum, the reports shall include:

1. Results of the pond and wastewater monitoring. Data shall be presented in tabular format.
2. Copies of laboratory analytical report(s).
3. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements.
4. A calibration log verifying calibration of all hand held monitoring instruments and devices used to comply with the prescribed monitoring program.
5. A scaled map showing relevant structures and features of the facility, the locations of all sampling stations.

## **B. Annual Monitoring Reports**

An Annual Report shall be prepared and submitted to the Central Valley Water Board by **1 February** each year. The Annual Report shall include the following:

1. Tabular and graphical summaries of all data collected during the year.
2. A discussion of compliance and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of all WDRs violations during the reporting period, and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. 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 pursuant to Section B.3 of the Standard Provisions and Reporting Requirements.

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

Original signed by Ken Landau for  
Ordered by: \_\_\_\_\_  
PAMELA C. CREEDON, Executive Officer  
8 August 2014  
\_\_\_\_\_  
(Date)

## INFORMATION SHEET

### WASTE DISCHARGE REQUIREMENTS ORDER R5-2014-0109 NEWMAN MINERALS, LLC AND EDWIN LANDS, LLC IRISH HILL QUARRY AMADOR COUNTY

#### **Background**

The Irish Hill Quarry (Quarry) is located at 12300 Irish Hill Road, approximately one mile northeast of Lone. The Quarry has been operated without regulation under WDRs since approximately 1981. Currently, the facility is in operation under an Amador County Use Permit adopted in 1988.

The facility mines sand and gravel from gold-rush era dredge tailings deposited from 1860s through the early 1900s. The Quarry has an average production rate of approximately 600 to 1,000 tons per day. The maximum permitted annual production is 120,000 tons per year with a ten-percent exceedance allowed in non-consecutive years.

The site occupies approximately 90 acres on both sides of Dry Creek. The area on the east side of the Creek has already been mined. Currently only approximately 29 acres in the western side of the creek are active operation areas. The Quarry includes mining and stockpile areas, a Wash Plant, four wash water settling ponds, and a Water Storage Pond. The Wash Plant includes rock crushers, screens, a trommel, pumps and a sand screw. The Wash Plant segregates mined materials into different size categories. The finished products include landscape cobble, drain rock, concrete aggregate, and sand. All segregated materials are either sold or stockpiled onsite for reclamation.

Water for aggregate washing and dust control is pumped from the Water Storage Pond. The wash water runoff flows by gravity to the settling Ponds 1 through 4 in series. Water decanted from Pond 4 is returned to the Water Storage Pond for reuse. The washing process functions as a closed-loop and does not discharge wastewater from the site. Water is primarily lost from the operation through evaporation, adherence to processed materials, and pond percolation. The primary source of make-up water is onsite storm water runoff and water pumped from Dry Creek. Water in the Water Storage Pond is composed of clarified water from Pond 4, water from Dry Creek and storm water. No chemicals are used in aggregate processing.

Water samples from the Water Storage Pond were analyzed in April 2013. The analytical results do not exceed potential water quality objectives. However, the Report of Waste Discharge (RWD) did not provide wash water data for iron and manganese. Reducing conditions may or may not occur in the ponds. Aquatic and marginal vegetation growth in any of the ponds could lead to anoxic and reducing conditions, as decaying organic material accumulates at the bottom of the ponds. Reducing conditions in combination with very small particle sizes present in the ponds could mobilize metals that are present in the natural mineral composition of the silts and clays. The Discharge Specifications in this Order will require the Discharger to control pond vegetation to minimize the threat of reducing conditions.

Based on the low threat to groundwater quality, this Order does not require groundwater monitoring. However, this Order imposes groundwater limitations that will ensure that

discharges will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan. If additional information becomes available that indicates a significant threat to groundwater quality, groundwater monitoring may be required at some future date.

### **Planned Changes in the Facility and Discharge**

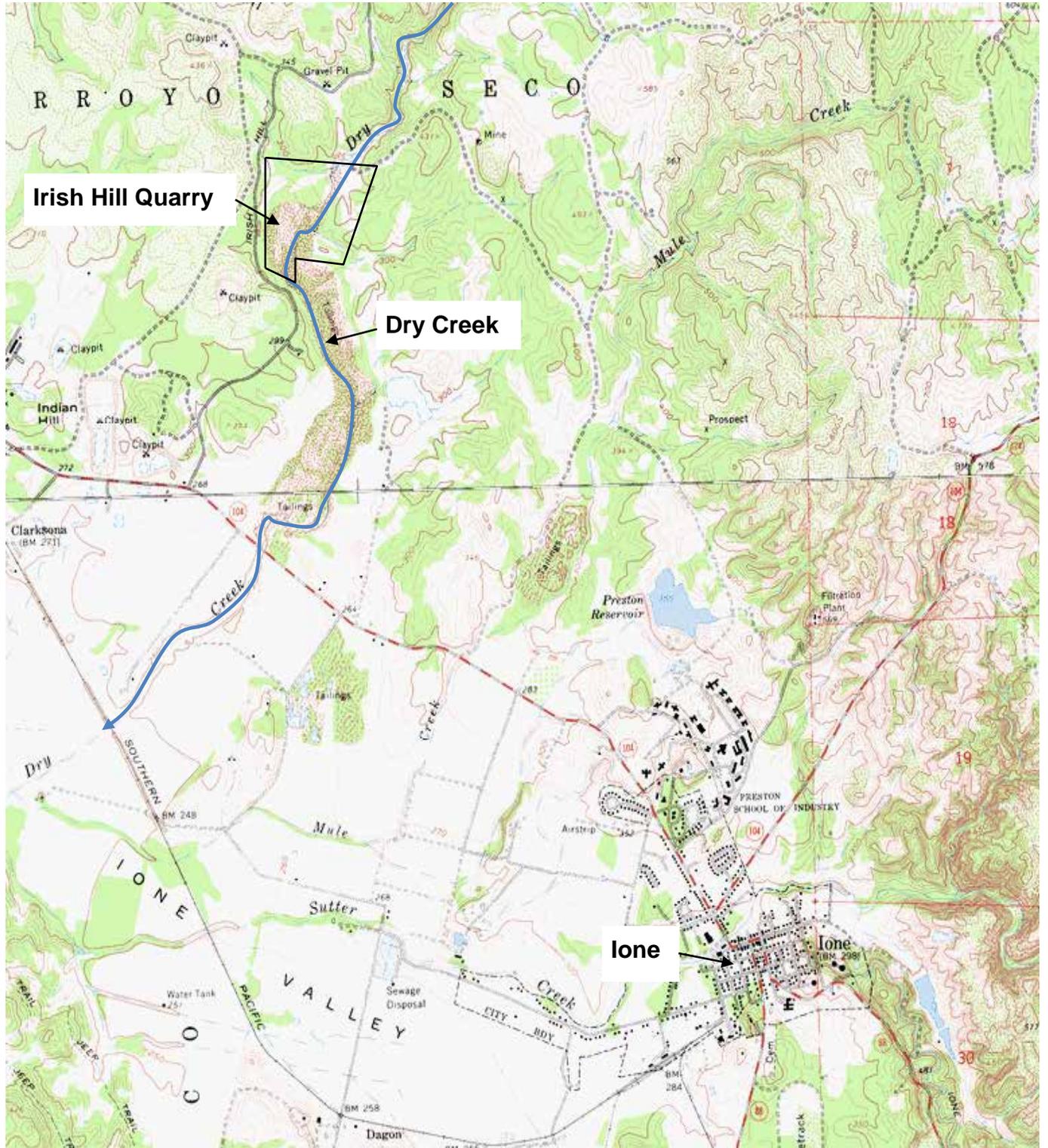
The Use Permit adopted in 1988 requires a 150-foot setback from Dry Creek and limits the depth of mining to ten feet above the mean bottom elevation of Dry Creek. On 14 November 2012, Amador County issued a Use Permit Amendment that adjusted the setback from Dry Creek and the mining depths. The 150-foot setback was adjusted to a new riparian setback (as close as approximately 50 feet from Dry Creek). The depth of mining will increase by approximately 10 to 15 feet, to approximately 257 feet above mean sea level, which is the approximate depth of the man-made sand and gravel dredge deposits.

The RWD states the current active mining area occupies approximately eight acres and is an average of approximately five feet below surrounding areas and acts as a storm water detention basin during storm events. Due to the setback adjustment and mining depth increase allowed by the Use Permit Amendment, the RWD indicates that the capacity of the storm water detention basin will increase. The active mining area will be expanded from eight acres to approximately 15 acres, and the mining depth will increase by approximately 10 to 15 feet. Therefore, the onsite storm water storage will increase from 40 to approximately 225 to 300 acre-feet.

### **Discharge Prohibitions, Specifications and Provisions**

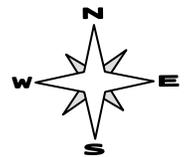
This Order includes groundwater limitations that implement water quality objectives for groundwater from the Basin Plan.

The Monitoring and Reporting Program is designed to verify compliance with the requirements of the WDRs.

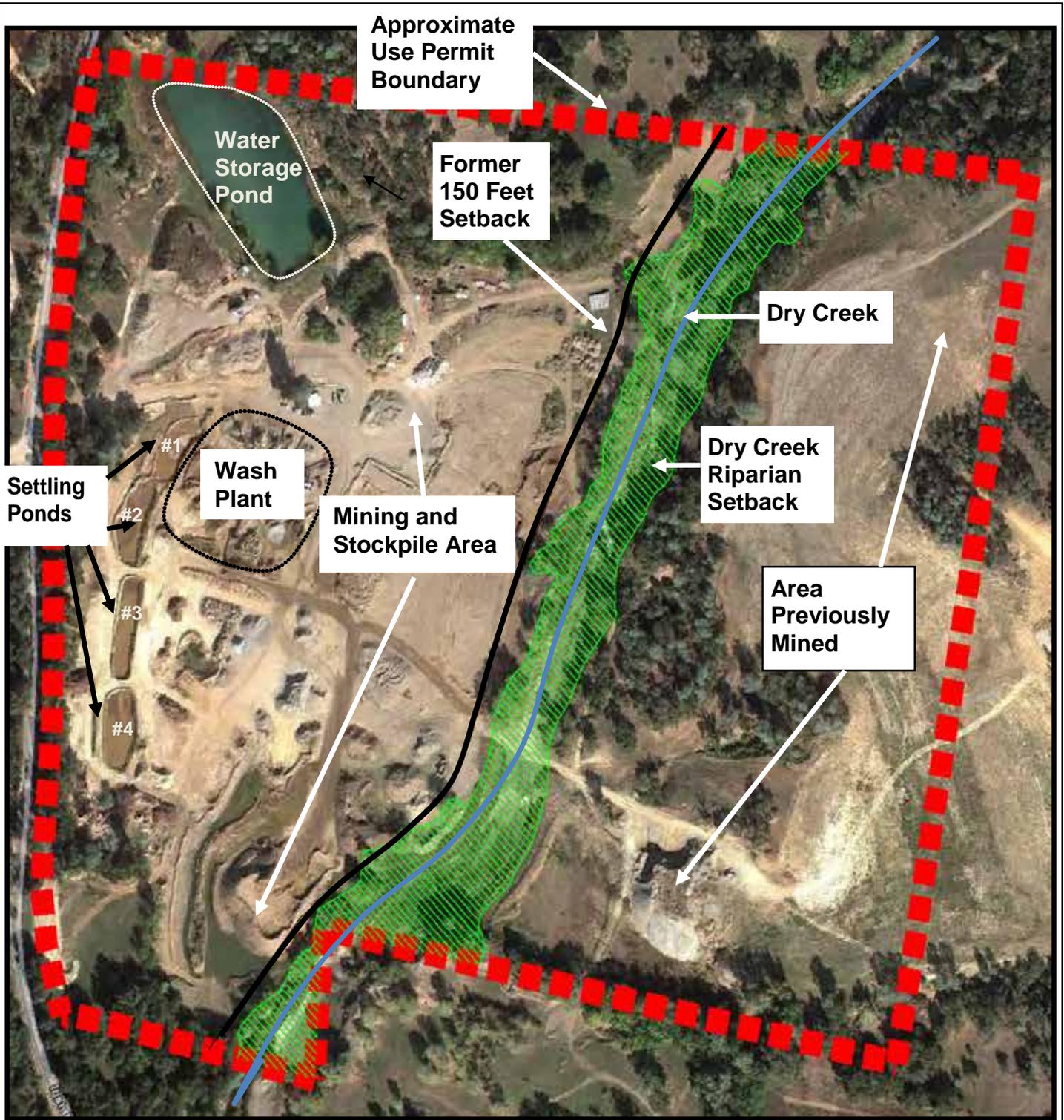


Drawing Reference:  
USGS  
lone 7.5' Quadrangle

**LOCATION MAP**  
NEWMAN MINERALS, LLC. AND EDWIN LANDS, LLC  
IRISH HILL QUARRY  
AMADOR COUNTY

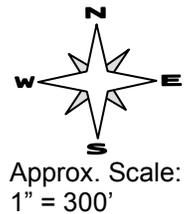


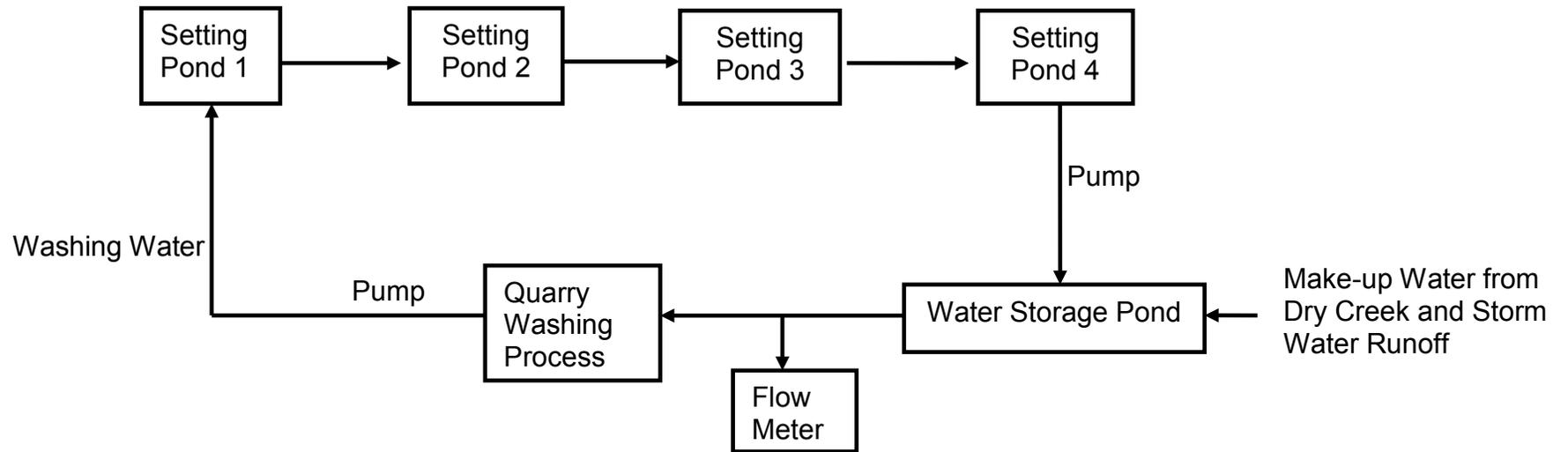
Approx. Scale:  
1" = 2,000'



Drawing Reference:  
Newman Minerals, LLC  
Report of Waste Discharge  
November 2013

**SITE PLAN**  
NEWMAN MINERALS, LLC. AND EDWIN LANDS, LLC  
IRISH HILL QUARRY  
AMADOR COUNTY





Drawing Reference:  
Newman Minerals, LLC  
Report of Waste Discharge  
November 2013

**PROCESS SCHEMATIC**  
NEWMAN MINERALS, LLC. AND EDWIN LANDS, LLC  
IRISH HILL QUARRY  
AMADOR COUNTY