Exhibit "D"

CONDITIONS OF APPROVAL
Board of Supervisors: October 18, 2016

Syar Napa Quarry
Surface Mining Permit No. P08-00337
2301 Napa Vallejo Highway
APNs: 045-360-005,046-370-012, -013, -015, -022, -025,
046-390-002, -003, and 046-450-071

1. SCOPE:

A. The Permittee is authorized to operate the Syar Napa Quarry (the Quarry) facility in accordance with the scope of this Surface Mining Permit (or SMP or Permit) which shall be limited to the mining, associated aggregate processing and production activities, aggregate and asphalt sales, and reclamation of the Quarry as follows:

1. The excavation, production, processing, and sales of up to a maximum of 1.3 million tons of aggregate and related aggregate materials (including recycled concrete, asphalt, and reclaimed asphaltic product) from the Quarry annually for the next 35 years beginning on the Effective Date of this Permit;
2. Annual production levels shall not exceed 1.3 million tons per year (tpy) for aggregate and aggregate-related materials, and asphalt production shall not exceed 300,000 tpy which shall be inclusive of the overall 1.3 million tpy limitation;
3. An approximate 106-acre expansion of the current surface mining and reclamation areas and continued mining and associated operations within the mining areas identified in the "Syar Industries Inc., Napa Quarry Mining and Reclamation Plan dated September 14, 2016" (the 2016 Mining and Reclamation Plan) and excavation limits identified in Figure 3-5 (Limits of Vertical Excavation) of the project's EIR (attached as Figure 1) as modified by these conditions of approval and mitigation measures in this Permit
4. An increase in mining depth from approximately 300 feet and 150 feet above mean sea level (msl) to no greater than 50 feet above msl;
5. Installation and operation of Reclaimed Asphaltic Product (RAP) handling equipment at the facility's existing asphaltic batch plant;
6. Provide additional visual screening in the Pasini Parcel expansion area by planting oak trees as shown in Figure 3F of the 2016 Mining and Reclamation Plan). A qualified biologist shall prepare a planting plan subject to County approval that describes the methods of implementation, planting details including tree species to be planted and container size, propagule source(s), watering (schedule/amounts/duration), maintenance including measures to avoid deer browsing, and monitoring protocol. The planting plan shall also specify minimum success criteria consistent with those identified in Section 6.3.2 (Planting Success Criteria) of the 2016 Mining and Reclamation Plan

and Condition of Approval (COA) No. 3(C). These trees shall be planted within 24 months of the Effective Date of this Permit;

7. Ongoing operation of existing aggregate processing support facilities as identified in Section 3.5.4 of the project EIR (incorporated herein by reference) and attached as Figure 3, including the placement and utilization of portable equipment necessary for Quarry Operations and reclamation; and the installation, maintenance and realignment of internal access and mine roads on the site including those shown on Figure 3-5 of the project's EIR (attached as Figure 1);
8. Reclamation of all areas disturbed both henceforth and in the past in conformance with and identified in the 2016 Mining and Reclamation Plan, as modified by these conditions of approval and mitigation measures in this Permit. In the event there is a conflict between the 2016 Mining and Reclamation Plan and the conditions of approval or project Mitigation Measures the conditions of approval shall control; and
9. An increase in Quarry Operation employees from approximately 55 to a maximum of 75 total Quarry employees.

B. The mining operation and reclamation shall be carried out in substantial conformance with the 2016 Mining and Reclamation Plan as modified by these conditions of approval and/or required project mitigation measures, including, but not limited to, maximum production amounts and identified excavation limits (both vertically and horizontally).

It is the responsibility of the Permittee to communicate the requirements of these conditions of approval and all mitigation measures to all contractors, employees, and customers of the Quarry (as applicable) to ensure compliance is achieved.

Any expansion or change in excavation limits, any increase in production amounts, and/or expansion or change in use of the Quarry (including aggregate production and processing support facilities) shall require a modification to the approved SMP, pursuant to Chapter 16.12 of the Napa County Code (NCC), the Surface Mining and Reclamation Act (Public Resources Code (PRC) Section 2710 et seq. (SMARA)), and the State Mining and Geology Board Regulations (California Code of Regulations (CCR), Title 14, Division 2, Chapter 8, Subchapter 1). Any deviation or modification of the 2016 Mining and Reclamation Plan or to the "Quarry Operations" identified in this Permit shall be subject to the permit revision or amendment process in NCC Sections 16.12.520 and 16.12.530.

C. [Reserved.]

D. Within 12 months of the Effective Date of this Permit and prior to the initiation of any vegetation or Overburden removal, earthmoving or earth-disturbing activities, or quarrying or mining activities occurring in any undisturbed areas (including any expansion area), the Permittee shall develop and execute a License Agreement

with the County (in cooperation with the Napa County Parks and Open Space District and the Skyline Park Citizens Association) that shall allow all the existing trails currently located on Syar holdings to remain in place for the life of this Permit and to allow continued public access. The County shall review the License Agreement as to form prior to its approval and prior to the Permittee's recordation.

E. The Permittee shall protect all lands identified as "Exclusion Areas" (including areas that overlap oak woodland protection areas) as identified within Figure 3f of the 2016 Mining and Reclamation Plan via a deed restriction in a form acceptable to County Counsel. The deed restriction shall be recorded within 12 months of the Effective Date of this Permit and prior to the initiation of any vegetation or Overburden removal, earthmoving or earth-disturbing activities, or quarrying or mining activities occurring in any undisturbed areas (including any expansion area) of the Quarry property. Also see DEIR Figure 3-4 (project Activities/Areas) and Figure 3-5 (Limits of Vertical Excavation) attached as Figure 1 for details of the Exclusion Areas.

F. This project and Permit shall be reviewed by the Planning Commission every 5 years at a noticed public hearing to determine compliance with the conditions of approval, project mitigation measures, and the approved 2016 Mining and Reclamation Plan. The Commission may impose additional conditions as necessary to address compliance issues. A fee for said review and public hearing shall be charged consistent with the fees in effect at the time of the hearing and shall be paid by the Permittee. Said hearings shall commence in April 2020.

   If after conducting inspections required by NCC Section 16.12.500, review of the Annual Compliance and Assurance Update Report required pursuant to COA No. 2(L) (below), or other inspections as may be undertaken, or upon the receipt of a verified complaint, the Planning Director finds that Quarry Operations are not in substantial compliance with this Permit, NCC Chapter 16.12 and/or SMARA, the procedures prescribed in Article VI (Enforcement) (NCC Section 16.12.600 et seq.) shall be immediately commenced so that any significant compliance issues can be brought before the Planning Commission at the earliest opportunity provided Permittee has failed to timely cure the violation.

G. All prior mining-related discretionary permits on the Property including, but not limited to, Permit Numbers UP-128182 and UP-27374 authorizing current mining, quarrying, associated operation of the Quarry, and reclamation shall be superseded and replaced by this Permit.

2. PROJECT SPECIFIC CONDITIONS:

The following project specific conditions of approval shall apply to all operational activities and subsequent reclamation of the facility. The Permittee shall comply with all County Division, Departments and Agency requirements including all applicable

building codes, zoning standards, and requirements. The determination as to whether or not the Permittee has substantially complied with the requirements of other County Divisions, Departments and Agencies shall be determined by those Divisions, Departments or Agencies. The inability of Permittee to substantially comply with the requirements of other County Divisions, Departments and Agencies may result in the need to modify this Permit.

A. Permit Compliance.
The Permittee shall comply with all of the conditions of approval of this Permit and the mitigation measures and mitigation monitoring and reporting program adopted in connection with the project.

The Permittee shall also comply with the provisions of NCC Chapter 16.12, SMARA, and the State Mining and Geology Board Regulations (CCR, Title 14, Division 2, Chapter 8) during and throughout mining and reclamation activities at the Quarry site.

B. Permit Term.
All Quarry Operations, related material processing and production, storage, sales and shipping, including asphalt production and sales shall permanently cease onsite and reclamation shall begin upon expiration of this Permit, unless continued mining and/or mine-related activities after that time are authorized by a separate surface mining permit approved by the County or a modification to this Permit approved by the County.

C. Permit Limitation.
The introduction of additional uses, production of products other than those specified in this Permit, expansion of the area to be mined/excavated into other areas of the site (including the parking, stockpiling, or storage of vehicles, equipment, and materials), installation of equipment or construction of facilities including roads and access ways outside of the identified excavation areas shown in the 2016 Mining and Reclamation Plan and Figure 3-5 (Limits of Vertical Excavation) in areas other than those identified in the project site plans of the project's EIR, or other changes to Quarry Operations shall be prohibited, unless such modification(s) to this Permit are first approved by the County pursuant to the permit revision or amendment process in NCC Sections 16.12.520 and 16.12.530.

D. Groundwater Supply and Use.
Groundwater use and pumping for all Quarry Operations and reclamation shall not exceed 140.6 acre-feet per year.

The Permittee shall monitor groundwater levels continuously at all Quarry wells with automated pressure transducers and at least semi-annually (i.e., in spring and fall) by manual measurement to confirm the transducer data. Groundwater levels shall be measured to record the annual range of levels typically observed

in aquifer systems in the region and to develop a record of groundwater conditions at the Quarry over time. The Permittee shall also record annual groundwater usage/pumpage with flow meters at all wells in production for the Quarry and create an annual summary report based on this data. All monitoring reports and data specified herein shall be submitted to the Planning Building and Environmental Services (PBES) Department monthly and as prescribed pursuant to COA No. 2(L) (below), and as necessary to demonstrate compliance.

The Permittee shall implement the following monitoring, data collection, and reporting measures within 3 months of the Effective Date of this Permit continuing for the duration of the Permit. These data will enable evaluation of groundwater levels to identify trends associated with seasonal weather patterns and precipitation totals, water year types, and groundwater use by the Permittee.

1. Monitoring devices, protocol and reporting shall be done in accordance with the recommendations of a qualified hydrogeologist and as specified in Mitigation Measures 4.8-2 and 4.8-3. The hydrogeologist referenced in this condition of approval shall be selected by and contracted to the County and paid for by the Permittee.
2. Permittee shall monitor groundwater levels continuously at all Quarry wells with automated pressure transducers and at least quarterly (and including spring and fall measurements) by manual measurement to confirm the transducer data. When measured manually at the Quarry wells, groundwater levels will be recorded no sooner than 48 hours after the well last operated in order to collect data representative of aquifer conditions (static groundwater levels).
3. Permittee shall monitor precipitation onsite or compile precipitation data records from the nearest publically available source.
4. Permittee shall record annual groundwater pumpage with flow meters at all wells in production at the Quarry and any other consumptive use of groundwater (such as water collected from open water bodies in contact with the regional groundwater potentiometric elevation). Groundwater pumpage and use shall not exceed 140.6 acre-feet per year.
5. Permittee shall create an annual summary report of groundwater conditions at the Quarry based on the data described above.

If the monitoring data and reports referenced in this condition of approval show an ongoing impact on spring and fall season groundwater levels (continual lowering regardless of water year types) due to groundwater use at the Quarry, a qualified hydrogeologist (paid for by the Permittee) shall recommend ways, or reduction measures, in which water usage can be reduced to stabilize groundwater levels. The Permittee shall implement recommended reduction measures until groundwater levels show stable conditions on a multi-year basis. All recommendations shall be immediately implemented to the satisfaction of the PBES Director.

E. Hours of Operation (See Section 12 below for Definitions of the activities specified below).
   1. Aggregate Mining Operations:
      a) Construction Season, Monday through Friday only from 6:00 AM to 6:00 PM
      b) Off Season, Monday through Friday only from 7:00 AM to 3:30 PM
      c) Aggregate Mining Operations shall be prohibited on weekends and recognized Major Holidays.
      d) Within 400 feet of the project's common property lines with Skyline Wilderness Park (or SWP) and where vegetation and Overburden removal are visible from SWP or SWP Trails, said activities shall be limited to 7:00 AM to 12:00 PM (noon) on weekdays only.

   2. Aggregate Processing Operations:
      a) Construction Season, Monday through Friday only from 6:00 AM to 6:00 PM.
      b) Off Season, Monday through Friday only from 7:00 AM to 3:30 PM.
      c) As necessary to accommodate customer requirements and market conditions, aggregate processing operations may occur 7 days a week 24 hours per day provided the Permittee informs the PBES Department at least 48 hours in advance of these activities occurring to ensure said activities are conducted in accordance with this Permit.

   3. Asphalt Plant Operations:
      a) Year-round, Monday through Friday only from 7:00 AM to 3:30 PM.
      b) As necessary to accommodate customer requirements and market conditions, asphalt plant operations, including the production, transport and loading of asphalt, located within the asphalt plant area of the facility, may occur 7 days a week 24 hours per day provided the Permittee informs the PBES Department at least 48 hours in advance of these activities occurring to ensure said activities are conducted in accordance with this Permit.

   4. Aggregate Sales and Asphalt Sales:
      a) Year-round, Monday through Friday only 7:00 AM to 3:30 PM.

   5. For Quarry Operations occurring during non-traditional hours of operation (i.e., between 6:00 PM and 7:00 AM) equipment shall utilize discriminating back-up alarms, night silent back-up alarms, or other back-up alarm system (as opposed to conventional back-up alarms) to minimizes noise emissions from this source.

   6. Maintenance and repair work may be conducted outside of identified hours and days provided that noise levels do not exceed 50dBA at the northern and eastern property lines.

7. The limitations on operational hours and days specified above may, in case of an Emergency, be temporarily waived by the PBES Director.

F. Blasting.
Blasting operations shall be conducted as specified below and in accordance with Syar's Blasting Procedures (see Figure 4 attached and incorporated here by reference):
1. Year-round, Monday through Friday only from 10:00 AM to 3:00 PM (for areas within 400 feet of common property lines with Skyline Wilderness Park from 12:00 PM to 3:00 PM): blasting shall not occur outside of these hours, or on the weekends, or on any Major Holidays.
2. Blasting shall be prohibited during high wind conditions. High wind conditions are deemed to occur when the 2-minute average wind speed exceeds 20 miles per hour as measured using the methods described by the South Coast Air Quality Management District in Attachment A to the Rule 403 Implementation Handbook.
3. The Permittee shall measure and record wind speeds continually throughout the day during blast events to ensure compliance with this COA. Wind speed measurements, including average wind speeds shall be included in required blasting logs.
4. The Permittee shall notify via e-mail the PBES Department, Skyline Wilderness Park, Napa County Office of Education, Chamberlain High School, Liberty High School, Creekside Middle School, the Napa Preschool Program, the Napa Child Development Center, Napa State Hospital, and any agencies, businesses, and local residents requiring or requesting such notice via e-mail, at least 48 hours in advance of any blasting events.
5. The Permittee shall record each blast event and maintain blasting logs for 5 years. Blasting logs/records shall be submitted to the PBES Department annually as required by COA No. 2(L) below.

G. Safety and Security.
1. The Permittee shall install fencing along the perimeter of Quarry boundaries and/or exclusion areas to the extent necessary to prevent the public from accessing active Quarry areas. The location of said fencing shall not prevent use of existing Skyline Wilderness Park trails.
   a) The fencing shall generally consist of three strand wire with metal and/or wood fence stakes/posts.
   b) "No Trespassing" signs shall be appropriately posted around the perimeter of the Quarry in association with security fencing.
   c) The precise locations and design of security fencing shall be inspected and approved by the Planning Division prior to the installation of any new or relocated security fencing.

H. Contact List.
Within 30 days of the Effective Date of this Permit, the Permittee shall mail a Quarry contact list with Quarry contact names and phone numbers to the

following: each property owner within a 3,000 foot radius of the exterior boundary of the project site as listed on the most recent tax roll listing, the PBES Department, Skyline Wilderness Park, Napa County Office of Education, Chamberlain High School, Liberty High School, Creekside Middle School, the Napa Preschool Program, the Napa Child Development Center, the Napa State Hospital, and those persons or organizations who have requested to be on the Quarry contact list. The contact list shall have at least 2 Quarry Operations contacts that include the name, local phone number, and email address that can be contacted regarding Quarry Operations and compliance. It shall be the responsibility of the Permittee and the Quarry contact to respond to any inquiries within 24 hours of receiving them. The Permittee shall update the Quarry contact list every 5 years to coincide with the monitoring report required pursuant to COA No. 1(F) and any time there are changes in personnel and/or contact information listed in the Quarry contact list, and re-send the contact list to all property owners within a 3,000 foot radius of the project site and entities identified herein.

I. Site Maintenance.
All trash, unnecessary or un-useable equipment, scrap, and installations of the Quarry operation shall be removed as necessary in a timely manner, and properly disposed of to maintain a neat and orderly site.

J. Public Roads.
All loaded trucks leaving the site shall be properly trimmed, maintain the required 2 feet of freeboard, and/or secured so as to prevent spillage of materials onto the public roadway. In the event that spillage onto the road does occur, Permittee shall immediately remove said spillage.

K. Other Regulatory Permits.
The Permittee shall obtain and maintain permits from State, Federal, and local regulatory agencies as applicable to the activities authorized herein, including but not limited to permits and approvals from: the Napa County Building Division; the Napa County Public Works Department; the Napa County Engineering and Conservation Division; the U.S. Army Corps of Engineers; the California Department of Fish and Wildlife; the Bay Area Air Quality Management District; the Regional Water Quality Control Board; and the U.S. Fish and Wildlife Service.

L. Annual Compliance and Assurance Update Report (Annual Compliance Report).
During the life of this Permit, the Permittee shall annually prepare and submit a written report to the PBES Department, as part of the Quarry Operations annual inspection reporting requirements pursuant to NCC Section 16.12.500, PRC Section 2774, and the project's Annual Mining Plan demonstrating compliance with all of the conditions of approval and mitigation measures for this Permit. Said report shall also include an updated Financial Assurance Cost Estimate (FACE) as required pursuant to NCC Section 16.12.415 and PRC Section

2773.1(a)(3) for review and approval by the County and verification of the following from the Permittee:

1. That the operation has maintained an adequate FACE pursuant to NCC Sections 16.12.400 and 16.12.435 in the amount of the most recently approved FACE.
2. That the operation is in compliance with Napa County's Stormwater Management and Discharge Control Program (NCC Chapter 16.28).
3. That the Storm Water Pollution Prevention Plan (SWPPP – WDID No. 228I005111) under which the facility operates has been updated as necessary to accommodate changing conditions and is in compliance with National Pollutant Discharge Elimination System (NPDES) requirements.
4. That Quarry Operations and practices are conducted in compliance with the safety requirements of the Mine Safety and Health Administration, the California Division of Occupational Safety and Health (Cal-OSHA), the State Division of Industrial Safety, and California Mine Safety Orders.
5. That the Permittee has maintained a public liability policy for both the mining and reclamation operations which provides for personal injury and property protection to compensate all persons injured or for property damaged as a result of such operations and that has a minimum $2 million coverage for each occurrence and a minimum umbrella coverage of $5 million or as required by the County's Risk Manager.

The Annual Compliance Report shall accompany the Annual Mining Plan specified in the project's MRP dated September 2016.

The first Annual Compliance Report shall be submitted to the County within 12 months of the Effective Date of this Permit. Thereafter the Annual Compliance Report shall be submitted annually, and as necessary at the request of the County, to demonstrate compliance.

If determined necessary by the PBES Director, the County may either hire a consultant (at the Permittee's expense) to prepare this Annual Compliance Report and/or retain a third party independent review of the report to assess and determine compliance with this Permit, conditions of approval, mitigation measures, and NCC Chapter 16.12.

M. Air Quality.

The Permittee shall implement the following Air Quality Best Management Practices (BMPs) during Quarry operational activities and reclamation in addition to Mitigation Measures 4.3-2a, 4.3-2b, and 4.3-3:

1. All exposed surfaces (graded areas, staging areas, stockpiles, and unpaved roads) shall be covered, vegetated, or watered or treated with dust suppressants as necessary to minimize particulate (dust) emissions. Ensure that all trucks hauling soil, sand and other loose materials from the site shall

be covered in accordance with Vehicle Code Section 23114 or maintain at least 2 feet of freeboard.

2. The site access road, adjacent public roads, and paved areas within the proximity of the scale house and Quarry office shall be swept daily with a high efficacy or wet power vacuum street sweepers at least twice per day and if visible soil material is carried/tracked out onto roadways.
3. Traffic on unpaved areas and roads shall be limited to 15 mph. Speed limit signs shall be placed as necessary on unpaved roads to adequately identify and control speeds within the Quarry. The locations and spacing of such signs shall be at the discretion of the County.
4. Grading and earthmoving activities shall be suspended when 2-minute average wind speed exceeds 20 mph.
5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes, as required by the California airborne toxics control measure - Title 13, Section 2485 of CCR. Signs clearly indicating this provision shall be installed at all access points or appropriate facility locations.
6. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
7. A sign with the telephone numbers and persons to contact at Napa County and the BAAQMD regarding dust and odor complaints shall be visibly posted at the site. This sign shall be posted within 30 days of approval of this Permit.
8. Within 5 years of the Effective Date of this Permit, the Permittee shall retire at least 3 pieces of mobile quarrying equipment from the Quarry fleet that have Tier 0 motors and replace with Quarry equipment that has higher Tier motors (i.e., Tiers 1, 2, 3, or 4), and as necessary to comply with applicable project Mitigation Measures. Preference shall be given to equipment that is utilized the most in on-going aggregate mining and processing operations as identified in the "Horsepower-Hour Log" required pursuant to COA No. 11(A) (Mitigation Measure 4.3-2a). Thereafter, Tier 0 motors will be replaced as necessary to comply with project specific Mitigation Measures and/or State requirements.

N. Creek Protection.

The Permittee shall implement the following measures to prevent the inadvertent encroachment into specified creek setbacks during Quarry Operations and reclamation:

1. Prior to any earthmoving or mining activities adjacent to Arroyo Creek, the location of the 60 foot creek setback for Lower Arroyo Creek and the 85 foot creek setback for Upper Arroyo Creek (as specified pursuant to Mitigation Measures 4.4-7 and 4.4-10, and as shown in Figure 4.4-4 of the project EIR), shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. The precise locations of said fences shall be inspected and

approved by the Planning Division prior to any earthmoving and/or mining activities occurring adjacent to creeks. No disturbance, including vegetation or Overburden removal, grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of Quarry Operations and reclamation activities. The protective fencing shall remain in place for the duration of Quarry Operations and reclamation, and shall be removed upon completion of reclamation.

O. Tree and Woodland Protection.
The Permittee shall implement the following Tree/Woodland Protection measures:
1. Prior to any vegetation or Overburden removal, or mining activities occurring adjacent to trees or woodlands to be retained, the Permittee shall install temporary fencing at the edge of the dripline of the trees to be retained that are located within 50-feet of the project area. The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of Quarry Operations and reclamation activities. Protective fencing shall be removed upon completion of reclamation.
2. The Permittee shall refrain from severely trimming trees and vegetation which are to be retained and are adjacent to mining and quarrying activities.
3. In accordance with NCC Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the project boundary (or footprint) and/or not identified for removal as part of this Permit shall be replaced onsite with fifteen-gallon trees at a ratio of 2:1 at locations approved by the PBES Director.

P. Because this Permit supersedes prior surface mining approvals, the Permittee shall cooperate with the County in terminating Napa County Agreement No. 2225 to the extent such action is deemed necessary by the County.

3. RECLAMATION

A. Applicability.
Reclamation of all mined and quarried areas shall be in conformance with the 2016 Mining and Reclamation Plan.

B. Timing.
Commencement of reclamation in areas where mining is complete shall be initiated by the Permittee within 12 months of completion of aggregate Quarry Operations within that area. Said areas shall be identified in the 2016 Mining and Reclamation Plan and/or the project's Annual Mining Plan specified within the 2016 Mining and Reclamation Plan as amended. For the purpose of this Permit the Completion of Mining shall mean when identified or active Aggregate Mining

Operational areas have reached the Limits of Vertical Excavation identified in the MRP and/or where they have reached the minimum 10 feet vertical separation from the regional groundwater potentiometric elevation prescribed by Mitigation Measure 4.8-2. The determination that Aggregate Mining Operations are complete in any given operational area of the Quarry shall be at the discretion of the PBES Director. Aggregate Mining Operations areas that have been determined to be complete shall be identified in the Annual Mining Plan.

Final reclamation shall commence in the following areas within the identified timeframes:

1. Short-term (i.e., within 12 months of the Effective Date of this Permit) - areas north and west of the State Blue Pit including the area identified R-3 in the 2016 MRP and any surrounding areas that are within 10 feet of the groundwater potentiometric elevation, and the area occupied by the "Former Grey Rock Plant" including areas immediately to the south and west. The reclamation area identified as Area 3 in the 2016 Mining and Reclamation Plan as it is located within a no mining exclusion area.
2. Midterm - Aggregate Mining Operation areas that have reached the Limits of Vertical Excavation and have reached the minimum 10 feet vertical separation from the regional groundwater potentiometric elevation, including any areas identified through the annual compliance and assurance review pursuant to COA No. 2(L) or through annual inspections conducted pursuant NCC Section 16.12.500 and PRC Section 2774.
3. Long-term (i.e., generally occurring within the last 5 years of the Permit term and/or as identified in the Annual Mining Plan) - the Processing Area shown on the MRP including any areas identified through the annual compliance and assurance update review procedures pursuant to COA No. 2(L) or through annual inspections conducted pursuant NCC Section 16.12.500 and PRC Section 2774.

For any other mined/disturbed areas within the Quarry that have not already been reclaimed, reclamation shall be initiated by the Permittee on or before the expiration of this Permit term.

Interim reclamation of the areas identified as R-1 and R-2 in the 2016 Mining and Reclamation Plan shall commence within 12 months of the Effective Date of this Permit. Future areas of interim reclamation and within the Quarry Facility as Quarry Operations progress, and associated timing, shall be identified in the Annual Mining Plan, the Annual Compliance Report pursuant to COA No. 2(L), or within the annual inspection reports prepared pursuant NCC Section 16.12.500 and PRC Section 2774.

C. Completion.
Reclamation of an area shall not be considered complete until the performance standards established in the 2016 Mining and Reclamation Plan identified below

have been met and thereafter consistently maintained for at least 3 years without irrigation, supplemental seeding, fertilizing, or other human intervention.

The determination that reclamation is complete in any given operational area or of the Quarry Facility shall be made by the PBES Director.

PLANTING SUCCESS CRITERIA

No.	SITE LOCATION	TREE/SHRUB COVERAGE[3]	TREE/SHRUB DENSITY[2]	TREE and SHRUB / GRASSLAND SPECIES RICHNESS[1]
1	Benches w/ Oak Woodland	47%	20 / 222	75% / 80%
2	Benches w/ Chamise Chaparral	36%	333 / 222	75% / 80%
3	Benches w/ Coyote Brush Chaparral	24%	0 / 222	80% / 80%
4	2:1 Cut Slopes w/ Oak Woodland	47%	18 / 2,150	75% / 80%
5	2:1 Cut Slope w/ Chamise Chaparral	36%	4,840 / 2,150	75% / 80%
6	2:1 Cut Slope w/ Coyote Brush Chaparral	24%	0 / 2,150	80% / 80%
7	2:1 Cut Slope w/ Grassland	80%	Not Applicable	80%
8	Fill Slopes w/ Oak Woodland	47%	18 / 2,150	75% / 80%
9	Fill Slopes w/ Chamise Chaparral	36%	4,840 / 2,150	75% / 80%
10	Fill Slopes w/ Coyote Brush Chaparral	24%	0 / 2,150	80% / 80%
11	Fill Slopes w/ Grassland	80%	Not Applicable	80%
12	Valley Floor w/ Grassland and Oaks	47%	18 / 222	75% / 80%

Notes: *Tables 5 and 6 of the 2016 Mining and Reclamation Plan identifies the tree/shrub types to be used for each community. The tables also shows the specific seed mix to be used for each community. In addition, the grassland seed mixes identified on Table 6 will be used as follows: oak woodland (OW) communities will use the oak woodland grassland mix; the chaparral (coyote bush (CBC) and chamise (CC)) will use the chaparral grassland seed mix; and the grassland (GL) community will use the grassland seed mix.*

1 Species richness % is derived from the tree and seed mix identified on Tables 5 and 6 of the 2016 Mining and Reclamation Plan. Communities with trees and/or shrubs the % does not include the grassland. The species richness is shown as (tree and shrub % / grassland %). For the OW community only 1 or 2 of the oak types identified will be used in any given area (to be determined by a biologist). There are 5 tree/shrub species in the OW community; 5 species in the CC; 6 species in the CBC. For the grassland seed mixes there are 8 seed types in the GL mix; 5 seed types in the OW mix; and 11 seed types in the CC and CBC mix.

2 The plant density on the benches (Nos. 1-3) are shown as 25,000 square feet or .57 acres. The remaining densities (Nos. 4-12) are for one acre. The density does not include the grassland mixes for the respective areas. The densities given are (tree number / shrub number) derived from Table 5.

3 For plantings on the benches (Nos. 1-3) the % is that of a 1,000 linear foot bench, 25 feet wide. For the remaining (Nos. 4-12) the % is for one acre coverage. Baseline coverage for the OW is 95%, CC is 60%, CBC is 40% and GL is 100%. The coverage % given in Table 12 is an anticipated successful coverage % after revegetation. The % does not include grasslands in the OW, CC or CBC communities.

As necessary through the term of this Permit, the Permittee shall, in conjunction with the County Conservation Division and the Napa County Resource Conservation

District, review and supplement/augment the reclamation species and seed mixes and application rates as necessary so that native species, which are appropriate for reclamation and erosion control of the project site are included in the reclamation efforts. Seed mixes shall be noxious weed free and shall include seed from locally propagated plant species to the maximum extent practical.

4. ENFORCEMENT

Enforcement of the provisions of this Permit, ongoing Quarry Operations and activities, and site reclamation shall be governed by Article VI (Enforcement) of NCC Chapter 16.12 (Surface Mining and Reclamation), in addition to any other remedies (civil or criminal) as may be available to the County.

5. SIGNS

Prior to installation of any new Quarry identification or directional signs, detailed plans, including elevations, materials, color, and lighting, shall be submitted to the PBES Department for administrative review and approval. All signs shall meet the design standards as set forth in NCC Chapter 18.116.

6. LIGHTING

All exterior lighting, including Quarry Operations and support facility lighting, shall be shielded and directed downward, located as low to the ground as possible, the minimum necessary for security, safety, or operations, and shall incorporate the use of motion detection sensors to the greatest extent practical. No flood-lighting or sodium lighting of the buildings is permitted, including architectural highlighting and spotting. Low-level lighting shall be utilized in parking and operational areas as opposed to elevated high-intensity light standards.

Prior to installation of any new lighting and issuance of any necessary building permits (including electrical permits) at the Quarry Facility, and pursuant to this approval, 2 copies of a detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the Property shall be submitted for Planning Division review and approval. All lighting shall comply with the California Building Code.

7. COLORS

The colors used for any new Quarry and mining facilities and structures shall be limited to earth tones that will blend the facility into the colors of the surrounding site specific vegetation and the Permittee shall obtain the written approval of the PBES Department prior to painting the facility structures. Highly reflective surfaces are prohibited.

8. INDEMNIFICATION [RESERVED.]

9. AFFORDABLE HOUSING MITIGATION

To the extent applicable, prior to County issuance of any building permits necessary for the project, the Permittee shall pay the Napa County Affordable Housing Mitigation Fee in accordance with the requirements of NCC Chapter 18.107.

10. MONITORING COSTS

All staff costs associated with monitoring compliance with these conditions, permit conditions, and project revisions shall be borne by the Permittee. Costs associated with conditions of approval and mitigation measures that require monitoring, including investigation of complaints, other than those costs related to investigation of complaints of non-compliance that are determined to be unfounded, shall be charged. Costs shall be as established by resolution of the Board of Supervisors in accordance with the hourly consulting rate established at the time of the monitoring and shall include maintenance of $500 deposit for project compliance monitoring that shall be retained until mining and reclamation are complete. Violations of conditions of approval or mitigation measures caused by the Permittee's contractors, employees, and/or guests are the responsibility of the Permittee.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of compliance deficiencies is found to exist by the Commission at some time in the future, the Commission may institute the audit program at the Permittee's expense (including requiring a deposit of funds in an amount determined by the Commission) as needed until compliance assurance is achieved. The Planning Commission may also use the data, if so warranted, to commence enforcement actions in accordance with NCC Chapter 16.12.

11. MITIGATION MEASURES:

The Permittee shall comply with the following mitigation measures:

A. Mitigation Measure 4.3-2a: Reduce NOx: Any time production of 810,363 tons (i.e., the Baseline Condition) of Aggregate or Aggregate-related Materials has been achieved within the previous 12-month period, the Permittee shall demonstrate that project NOx emissions are less than 10 tons per year.

Activity levels of offroad vehicle engines, which contribute a majority of project NOx emissions, shall be logged to document operational emissions from that source. The Permittee shall prepare a Horsepower-Hour Log ("Log") of monthly horsepower-hours for offroad vehicles operated within the previous 12-month period. The Log shall include the rolling 12-month total horsepower-hours. Low use equipment operated less than 20 hours per year shall be excluded. The Log shall sum the horsepower-hours for each tier of engine and calculate the percent of horsepower-hours operated by engines in each tier category. The Log shall be updated by the Permittee no less than semi-annually (i.e., every 6 months) or with greater frequency as necessary to ensure compliance with this mitigation measure.

The Permittee shall implement one or more the following options to reduce NOx emissions increase to less than 10 tons per year above baseline.

Option 1. Operating cleaner offroad vehicle engines as conditioned below:

a) Baseline conditions are established at 810,363 tons with a fleet mix of 39 percent Tier 0, 49 percent Tier 1, 10 percent Tier 2 and 2 percent Tier 3.
b) Production up to 945,000 tons per year shall be allowed upon continued demonstration that 12 percent of horsepower-hours operated are Tier 2 or better.
c) Production up to 1,100,000 tons per year shall be allowed upon continued demonstration that 44 percent of the horsepower-hours are Tier 2 or better.
d) Production up to 1,300,000 tons per year shall be allowed upon continued demonstration that 5 percent of horsepower-hours are Tier 3 or better and 72 percent of the horsepower-hours are Tier 2 or better.

Consistency with Condition of Approval No. 1(a) through 1(d) above demonstrates that NOx emissions are consistent with those calculated in the EIR and have increased by an amount less than (10) tons per year.

Option 2. Reduce NOx emissions from locomotive and/or barge engines by employing units with Tier 1 or better engines.

Option 3. Reduce on and/or offsite emissions by some other approved means. Onsite reductions may include, but are not limited to, source controls at the asphalt plants, electrifying processes that require offroad equipment (such as automated loadout conveyor systems to reduce haul truck emissions), or using alternate fuels such as biodiesel or electric motors. Offsite may include purchasing offsets. The purchase of any offsets shall be real, surplus, permanent, quantifiable, and enforceable.

If Options 2 or 3 are used, then the effectiveness of the actions to be taken shall be demonstrated to the County by submittal of an Emissions Calculations report prepared by a qualified professional (at the Permittee's expense). In that case, the Horsepower-Hours Log and/or documented historical fuel used in each vehicle shall be used to calculate NOx emissions from offroad vehicle engines. project NOx emissions from other sources not affected by proposed mitigations (e.g., on-road vehicle engines, asphalt plant burners, and blasting) shall be included in the Emissions Calculations to demonstrate that, in total, the combined NOx emissions increase from all project sources is less than 10 tons per year above baseline.

Both the Log and Emissions Calculations report shall be submitted to the County for review semi-annually and in the Annual Compliance Report required by COA No. 2(L), or as requested by the County to demonstrate compliance. If the County finds that operations have not achieved the required reductions, the

Permittee shall immediately update the Horsepower-Hours Log and scale back to a monthly production rate that will achieve the appropriate limit identified in Option 1 within the next 2 months as determined based on the percentages and tier of offroad vehicle engines in use during the 3 month period prior to the County's finding that operations have not achieved the required reductions. Thereafter reduced production levels shall be maintained until the Permittee provides documentation demonstrating the mitigation options chosen have been implemented and that increased production levels will result in NOx emissions increase of less than 10 tons per year. As necessary the County will either hire a consultant (at the Permittee's expense) or enlist the BAAQMD to assess and determine compliance.

B. Mitigation Measure 4.3-2b: Reduce Fugitive Dust (PM_{10} and $PM_{2.5}$):

Any time production of 810,363 tons (i.e. the Baseline condition) has been achieved within the previous 12-month period, the Permittee shall demonstrate that PM_{10} and $PM_{2.5}$ emissions have not increased above baseline levels. If the County finds that PM_{10} or $PM_{2.5}$ emissions have increased then monthly production shall be scaled back immediately to the level that will reduce the rolling 12-month PM_{10} and/or $PM_{2.5}$ emissions to less than baseline level within 2 months. Reduced production levels that result in emission compliance shall be maintained as long as necessary until the Permittee provides documentation demonstrating that increased production levels would result in no increase of PM_{10} and $PM_{2.5}$ emissions above baseline levels. The Permittee shall reduce PM_{10} and $PM_{2.5}$ through compliance with Items 1 through 4 below, and one or more of the methods listed in 5 through 6, below:

1. The Permittee shall clean internal paved roads daily using a particulate matter efficient street sweeper.

2. Blasting shall be prohibited during high wind conditions. High wind conditions means when 2-minute average wind speed exceeds 20 miles per hour as measured using the methods described by South Coast Air Quality Management District in Attachment A to the Rule 403 Implementation Handbook.

3. The Permittee shall apply water to blast sites where and when feasible prior to detonation.

4. The Permittee shall limit speeds on unpaved areas to less than 15 MPH.

5. The Permittee shall maintain chemical dust suppressant or equivalent dust suppressant that achieves similar control on the unpaved road surfaces, as described in the manufacturer's specifications. Materials used for chemical dust suppressant shall include any non-toxic chemical or organic dust suppressant or stabilizer and shall not violate State Water Quality Control

Board standards. Materials accepted by the California Air Resources Board and the U.S. EPA, and which meet State water quality standards shall be considered acceptable. The Permittee shall maintain records on dust suppressant use and any other supporting documentation to verify compliance with the conditions above. Such records shall include type of control measure(s) used, location and extent of coverage, date of use, amount, and frequency of application, including product information sheets that identify the name of the dust suppressant(s) and application instructions. Records shall be maintained for 5 years, and shall be submitted to the PBES Department annually, as required by COA No. 2(L).

6. The Permittee shall reduce on-site emissions by some other means (e.g., surface moisture content performance standard, watering frequency, installing or utilizing water spray systems), or electrifying processes that require off-road equipment (such as automated load-out conveyor systems to reduce haul truck emissions). Stationary source emissions of particulates can be reduced by: installing baghouses to aggregate processing equipment; installing bags with higher removal efficiencies in existing baghouses (such as the asphalt plants); installing scrubbers; or, installing water spray systems.

The effectiveness of this measure shall be demonstrated to the County by submittal of an Emissions Calculations report that has been prepared by a qualified professional (at the expense of the Permittee) and supporting data. The Emissions Calculations report shall be submitted to the County for review in the Annual Compliance Report required by COA No. 2 (L), or as requested by the County to demonstrate compliance. As necessary, the County will either hire a consultant (at the operator's/Permittee's expense) or enlist the BAAQMD to assess compliance.

C. Mitigation Measure 4.3-3: Reduce Health Risk: The Permittee shall implement the following mitigation measures to reduce health risk at sensitive receptors:

1. Using the Log described in COA No. 11(A) (Mitigation Measure 4.3-2a) and blasting activity or other records that substantiate the relative amount of activity in each pit, the following tiered approach shall be followed:

   a) Production up to 810,363 tons per year shall be allowed upon the Permittee's continued demonstration that at least 12 percent of horsepower-hours operated are Tier 2 or better (i.e., Baseline fleet activity as described in Mitigation Measure 4.3-2a Option 1(a).

   b) Production up to 950,000 tons per year shall be allowed upon the Permittee's continued demonstration that one of the following conditions is met:
      (i) The amount of products made from material excavated in the Blue and Grey Pits combined during the previous rolling 12-month period does

not exceed 427,500 tons per year (45 percent) and at least 12 percent of horsepower-hours operated are Tier 2 or better (i.e., Baseline); or

(ii) The amount of products made from material excavated in the Blue and Grey Pits combined during the previous rolling 12-month period does not exceed 570,000 tons per year (60 percent) and at least 44 percent of horsepower-hours operated are Tier 2 or better as described in Mitigation Measure 4.3-2a, Option 1(b).

c) Production up to 1,100,000 tons per year shall be allowed upon the Permittee's continued demonstration that one of the following conditions is met:

(i) The amount of products made from material excavated in the Blue and Grey Pits combined during the previous rolling 12-month period does not exceed 495,000 tons per year (45 percent) and at least 12 percent of horsepower-hours operated are Tier 2 or better (i.e., Baseline); or

(ii) The amount of products made from material excavated in the Blue and Grey Pits combined during the previous rolling 12-month period does not exceed 660,000 tons per year (60 percent) and at least 56 percent of horsepower-hours operated are Tier 2 or better.

d) Production up to 1,300,000 tons per year shall be allowed upon the Permittee's continued demonstration that 5 percent of horsepower-hours operated are Tier 3 or better and 72 percent of horsepower-hours operated are Tier 2 or better as described in COA No. 11(A) (Mitigation Measure 4.3-2a, Option 1(c)).

2. Reduce onsite emissions by some other means such as control of particulates by installation of verified diesel emissions control systems (VDECS) on engines that operate within the Quarry to reduce emissions from the overall fleet. VDECS are defined by the California Air Resources Board and listed on the CARB website.

The effectiveness of this mitigation measure shall be demonstrated to the County by submittal of the Horsepower-Hour Log described in COA No. 11(A) (Mitigation Measure 4.3-2a) and blasting activity or other records that substantiate the relative amount of excavation in the Blue and Grey Pits as compared to the total excavation amount. The Log shall be submitted to the County for review semi-annually and in the Annual Compliance Report required by COA No. 2(L), or as necessary to demonstrate compliance. As necessary the County will either hire a consultant (at the Permittee's expense) or enlist the BAAQMD to assess compliance.

D. Mitigation Measure 4.4-1a: Holly-leaf Ceanothus (Ceanothus purpereus) impact reduction:

1. Avoidance and Preservation. Prior to initiation of any vegetation or Overburden removal, earthmoving or earth-disturbing activities, or quarrying or mining activities occurring in any undisturbed areas (including any expansion areas), the Permittee shall revise the 2016 Mining and Reclamation Plan (at the Permittee's expense) to clearly delineate and show the 5-acre "Ceanothus Preservation and Replanting Area" required by this measure. The revised plan shall be submitted to the Engineering and Conservation Division for review and concurrence to demonstrate compliance with this measure. Avoidance and Preservation areas shall also be established and identified in the field through the placement of signage that clearly identifies the area(s) to be avoided so that accidental encroachment or removal of vegetation does not occur. Sign design and locations shall be included in the revised the 2016 Mining and Reclamation Plan.

2. Plant Replacement. Each holly-leaf ceanothus plant shall be replaced at a 3:1 ratio within the 5-acre "Ceanothus Preservation and Replanting" area for the impact to approximately 32 plants. No less than 96 individual holly-leaved ceanothus plants shall be planted to provide replacement and compensation for direct and potential indirect impacts.

3. Planting Plan. A qualified biologist shall prepare a Planting Plan for holly-leaf ceanothus for review and approval by the Napa County PBES Department 12 months prior to any vegetation or Overburden removal, earthmoving or earth-disturbing activities, or quarrying or mining activities occurring in any undisturbed areas (including any expansion area) where ceanothus plants would be removed. The Planting Plan shall specify plant sizes and protection measures identified in Item No. 4 below, methods of plant propagation/procurement (i.e., plant salvage, propagation plan, etc.), habitat enhancement of replanted area, appropriate planting densities, watering protocol (duration/quantity/schedule), maintenance requirements, and monitoring and success criteria identified in Item No. 5 below. The Planting Plan also shall address avoidance and conservation methods (i.e., fencing, etc.) for existing individual plants that are avoided by the mining footprint and designated processing area, or that occur in the "Ceanothus Preservation and Replanting Area."

4. Additional Planting Specifications. Replacement plants shall be from one gallon size or larger containers and shall be planted in the fall in clusters of 3 to 20 individual plants, based on details provided in the Planting Plan. Mesh shelters or other equally effective measures shall be installed around the plants to protect them from rodent damage and deer browsing. Plants shall be mulched to enhance moisture retention and discourage weeds during the

plant establishment period, and the area immediately surrounding the plants shall be weeded to reduce competition.

5. Monitoring and Success Criteria. A qualified biologist shall monitor the enhanced habitat and plantings on an annual basis to ensure the replantings achieve a minimum of 80 percent success/survival rate after 3 years, and to ensure habitat conditions remain adequate to support target species. If the success criterion has not been met after 3 years, supplemental plantings shall be made at the direction of a qualified biologist, and the plant establishment period shall be extended for an additional 2-year period, with additional annual monitoring events. The Permittee shall submit documentation of monitoring to the County on an annual basis, in conjunction with the Annual Compliance Report required by COA No. 2(L), for a minimum of 3 years or until success criteria are achieved, including survival rates, photographs, and a description of any maintenance or other pertinent issues identified by the monitoring biologist. The monitoring report shall also include information to illustrate the condition and location of any failed plantings.

E. Mitigation Measure 4.4-1b: Special-status plant species protection:

1. The Permittee shall have a qualified biologist prepare (at the Permittee's expense) updated seasonally-appropriate plant surveys prior to initiation of any vegetation or Overburden removal, earthmoving or earth-disturbing activities, or quarrying mining activities in undisturbed areas (including expansion areas) that contain potential habitat for special-status plant species. Since plant surveys are typically considered valid for a 2 to 3 year period, updated plant surveys shall be conducted on a phased basis as necessary within areas anticipated for new mining and quarrying activities no greater than 3 years prior to planned ground-disturbing activities.

2. If new or expanded California Native Plant Society (CNPS) sensitive-listed plant species populations (i.e., List 1 or 2) are identified within areas planned for project ground vegetation-disturbing activities, a plant replacement plan shall be prepared by a qualified biologist. The plant replacement plan shall specify a replant/replacement area, a 3:1 replacement ratio, methods of plant propagation/procurement (i.e., plant salvage if feasible, propagation plan, etc.), habitat enhancement of replanted area, planting densities, watering protocol (including duration, quantity and schedule), planting schedule, protective measures such as mesh shelters or other equally effective measures (and/or fencing) to protect plant establishment from rodent damage or deer browsing, maintenance requirements, success criteria, and monitoring to ensure success criteria are achieved. The plant replacement plan shall be prepared and submitted for approval by the county prior to conducting any mining or quarrying activities within the area of identified plant population(s).

3. A qualified biologist shall monitor the enhanced habitat and plantings on an annual basis to ensure the replantings achieve a minimum of 80 percent success/survival rate after 3 years, and to ensure habitat conditions remain adequate to support target species. If the success criterion has not been met after 3 years, supplemental plantings shall be made at the direction of a qualified biologist, and the plant establishment period shall be extended for an additional 2-year period, with additional annual monitoring events. The Permittee shall submit documentation of monitoring to the County on an annual basis for a minimum of 3 years or until success criteria are achieved, including survival rates, photographs, and description of any maintenance or other pertinent issues identified by the monitoring biologist. The monitoring report shall also include information to illustrate the condition and location of any failed plantings.

4. All surveys, plans, and reports required by this mitigation measure shall also be included in the Annual Compliance Report required by COA No. 2(L), and as necessary to demonstrate compliance.

F. Mitigation Measure 4.4-2: American Badger protection measures:

1. The Permittee shall retain a qualified biologist (at the Permittee's expense) to perform preconstruction surveys for American badger prior to initiation of project activities including vegetation or Overburden removal, earthmoving or earth-disturbing activities, or quarrying or mining activities occurring in any undisturbed areas (including any expansion areas) that occur in potential badger habitat (grassland and low density woodland areas with less than 2 trees per acre).

2. No more than 2 weeks before earthmoving activities begin within areas determined to be potential badger habitat (grassland and low density woodland with less than 2 trees per acre) and that have not previously been disturbed, a qualified biologist shall conduct a survey for burrows/dens and American badgers of onsite areas within 500 feet of new quarrying or earthmoving activities. Surveys shall be submitted to the County for review prior to the removal of vegetation or Overburden, and earthmoving or earth-disturbing activities. The purpose of the survey will be to determine whether burrows/dens exist within the area considered for disturbance within that construction year. Surveys shall not be required for areas already disturbed and/or where American badger habitat is not present.

3. If occupied burrows are found during preconstruction surveys, the biologist shall consult with CDFW and the County to determine whether the project activities would adversely disrupt the breeding activity of the badger.

4. If the biologist determines that construction activities would disrupt breeding activity, the Permittee shall ensure that occupied areas are avoided from

March through August. Implementation of project activities within 500 feet of onsite occupied burrows during this time shall be delayed until a qualified biologist can determine that juvenile badgers are self-sufficient enough to move from their natal burrow and avoid project activities. Documentation shall be provided to the PBES.

5. All surveys, plans, and reports required by this mitigation measure in shall also be included in the Annual Compliance Report required by COA No. 2(L), and as necessary to demonstrate compliance.

G. Mitigation Measure 4.4-3: Special-status bird species protection: The Permittee shall not disturb active bird nests without a permit or other authorization from the County, USFWS and/or CDFW. Prior to commencement of vegetation or Overburden removal, earthmoving or earth-disturbing activities, or quarrying activities within any undisturbed areas, the Permittee shall retain a qualified biologist to conduct preconstruction surveys for raptors and passerine birds for project activities occurring during the nesting season (i.e., February 1st through August 31st).

1. For vegetation or Overburden removal, earthmoving, earth-disturbing activities, or quarrying activities within previously undisturbed areas (including areas of grassland, shrubs, and trees) occurring between February 1st and August 31st, a qualified wildlife biologist shall conduct preconstruction surveys for passerine bird and raptor nests (including offsite areas with public access, excluding offsite private property) as follows: i) for areas that are not adjacent to lands within the Skyline Wilderness Park Combining District (NCC Chapter 18.90) surveys shall be conducted within a 300 foot radius of earth-disturbing activities; and, ii) for areas that are adjacent to Skyline Wilderness Park designated lands surveys shall be conducted within a 0.25 mile radius of earth-disturbing activities. Because raptor nests may be difficult to identify during the egg laying, incubation, or chick brooding periods (late April to early June), an early season survey is required if project activity areas are known prior to late April. The biologist shall conduct the preconstruction surveys within the 14-day period prior to vegetation removal and ground-disturbing activities (a minimum of 3 separate days of surveys shall occur within that 14-day period).

2. In the event that nesting passerine birds and/or raptors are found, the biologist shall consult with CDFW and the County to obtain approval for specific nest-protection buffers as appropriate based on the species. Generally, a minimum 150-foot buffer is required around active passerine bird nests and a minimum 300-foot buffer is required around active raptor nests during the breeding and nesting season, or until it is determined by a qualified biologist that all young have fledged. Nest protection measures shall apply to both onsite and offsite active nests that are located within 300 feet of project activities. These buffer zones may be modified in coordination with CDFW

based on existing conditions at the project site. Buffer zones shall be fenced with temporary construction fencing, which shall remain in place until the end of the breeding season or until young have fledged.

3. If project-related work lapses for 15 days or longer during the breeding season, a qualified biologist shall conduct another bird and raptor preconstruction survey and consult with CDFW as set forth above before project work may be reinitiated.

4. All surveys, plans, and reports required by this mitigation measure shall also be included in the Annual Compliance Report required by COA No. 2(L), and as necessary to demonstrate compliance, commencing 1 year from the date of approval of this Permit.

H. Mitigation Measure 4.4-5: Special-Status Bat Species protection and avoidance: Prior to commencement of any vegetation or Overburden removal, or project or quarrying activities within any undisturbed areas that contain trees, the Permittee shall implement, at the Permittee's expense, the following measures:

1. The Permittee shall retain a qualified biologist to conduct a habitat assessment for special-status bat habitat within 14 days of project initiation or tree removal.

2. If the habitat assessment identifies suitable special-status bat habitat and/or habitat trees, the biologist shall submit an avoidance plan for review and approval by the County, who may consult with CDFW if determined to be necessary. The avoidance plan shall identify and evaluate the type of habitat present at the project site and specify methods for habitat and/or habitat tree removal. Trees with cavities, crevices and deep bark fissures shall be avoided. Bat habitat/tree removal shall occur in 2 phases conducted over 2 days under the supervision of a qualified biologist. In the afternoon on day one, limbs and branches of habitat trees without cavities, crevices and deep bark fissures would be removed by chainsaw. On day 2, the entire tree can be removed.

3. All surveys, plans, and reports required by this mitigation measure in shall also be included in the Annual Compliance Report required by COA No. 2(L), and as necessary to demonstrate compliance, commencing 1 year from the date of Permit approval.

I. Mitigation Measure 4.4-7: Wetlands and riparian communities: To reduce potential wetland impacts, the Permittee shall:

1. Prior to initiation of project activities (i.e., vegetation and Overburden removal within any undisturbed areas) that may affect the areas identified as C1 and

C2 in the USACE-jurisdictional determination (USACE File Number 2009-00284N) through direct removal, the Permittee shall obtain a Clean Water Act Section 404 permit from the USACE. If a 404 permit is obtained, then the Permittee shall also obtain a water quality certification from the RWQCB under Clean Water Act Section 401. The Permittee shall compensate for the loss of wetland habitat in these areas to ensure no net loss of habitat functions and values. If mitigation is determined by the County to be infeasible due to lack of areas suitable for wetland creation, the County may approve a suitable offsite location. A detailed wetland mitigation plan (subject to approval by the USACE) to provide compensation wetlands shall be required that includes a 5-year monitoring program and reporting requirements, responsibilities, performance success criteria, and contingency requirements. At the end of each monitoring year, an annual report shall be submitted to the USACE, RWQCB, and the Napa County Engineering and Conservation Division. The report shall document the hydrological and vegetative conditions of the mitigation wetlands, and shall recommend remedial measures as necessary to correct deficiencies. The compensation wetlands shall be located within the same watershed as project impacts. In lieu of creating compensation wetlands, the Permittee may purchase mitigation credits from an approved mitigation bank at a ratio of 2:1, or as otherwise approved by the USACE.

2. Prior to initiation of project activity (including vegetation and Overburden removal) that may affect sensitive wetland habitats in non-USACE-jurisdictional areas, the Permittee shall obtain permits as may be required by the RWQCB, CDFW, and the County, and shall replace wet areas, at a 2:1 ratio or as directed by the RWQCB, CDFW, and/or the County, to ensure no net loss of habitat functions and values. If onsite mitigation is determined by the County to be infeasible due to lack of areas suitable for wetland creation that are not already planned for project activities, a detailed wetland mitigation plan to provide compensation wetlands shall be required (subject to approval by applicable state and/or local jurisdictions) that includes a 5-year monitoring program and reporting requirements, responsibilities, performance success criteria, and contingency requirements. At the end of each monitoring year, an annual report shall be submitted to the regulatory agencies. The report shall document the hydrological and vegetative conditions of the mitigation wetlands, and shall recommend remedial measures as necessary to correct deficiencies. The compensation wetlands shall be located within the same watersheds (i.e., the Arroyo Creek or Cayetano Creek watersheds/drainages) as project impacts or other suitable areas as determined by the County.

3. A 50-foot setback is included from the main stem of Arroyo Creek for new project elements beyond the extent of existing roads and development, thus avoiding impact to the riparian corridor along the main stem of Arroyo Creek. The 50-foot setback will be determined by mapping the Ordinary High Water Mark (OHWM) of the main stem (below 300-foot elevation) of Arroyo Creek

on the project site. The OHWM and 50-foot setback shall be flagged in the field for review and approval by state and/or local jurisdictions.

In 2 small areas, located in the southwest corner of the property south of the former Grey Rock Plant (as shown on DEIR Figure 4.4- 4), the 50-foot setback shall be increased to approximately 60 feet to avoid 2 small riparian areas (0.07 acres) that extend beyond the 50-foot setback. The drip-line of this additional vegetation shall be flagged in the field for review and approval by state and/or local jurisdictions.

4. All surveys, plans, and reports required by this mitigation measure shall also be included in the Annual Compliance Report required by COA No. 2(L), and as necessary to demonstrate compliance, commencing 1 year from the date of Permit approval.

J. Mitigation Measure 4.4-8: Invasive Species Management within Preservation/Replanting Areas:

1. The Permittee, at their expense, shall retain a qualified biologist to prepare an Invasive Species Management Plan (ISMP) for protected native perennial grassland areas (Purple Needlegrass Series) and replanted mitigation areas (i.e., the Ceanothus Preservation/Replanting Area described by Mitigation Measure 4.4-1). The ISMP shall be submitted to the County Department of Planning, Building and Environmental Services for review and approval within 12 months of the Effective Date of this Permit. The ISMP shall target invasive plant species either existing on the project site or that could colonize in the future, and shall specify methods of early detection, management, and control of invasive plant species to improve and protect onsite habitats.

   The ISMP shall provide a list of target invasive species to be managed at the site with Cal-IPC rating of moderate or higher for the Napa and Mt. George quadrangles and specify success criteria for managed invasive species. Star thistle, medusa head grass, and french broom are known to occur on a nearby vineyard property and shall be included on the list of target invasive species identified in the ISMP.

2. The ISMP shall be implemented by the Permittee within 12 months of approval of the ISMP by PBES to control infestations of invasive species onsite as needed to minimize impacts of such species on remaining protected sensitive habitat areas. Targeted invasive species identified in the ISMP may be managed by handpulling, local application of herbicide, and/or light grazing, or other techniques recommended by the ISMP. Guidance through managed grazing helps reduce fire fuel loads and, if timed properly, can favor the maintenance and expansion of native plant species. Selective control of invasive species shall be employed using best-management practices (BMPs) to minimize soil erosion, water contamination, or non-target herbicide

effects that could occur during implementation of invasive species management techniques.

3. All surveys, plans, and reports required by this mitigation measure shall also be included in the Annual Compliance Report required by COA No. 2(L), and as necessary to demonstrate compliance, commencing 1 year from the date of Permit approval.

K. Mitigation Measure 4.4-9: Oak Woodland Avoidance, Replacement, and Preservation: The Permittee shall, at the Permittee's expense, compensate for direct and indirect impacts to approximately 121 acres of native oak woodlands at a total mitigation ratio of 2:1, including combination of onsite avoidance and preservation (see DEIR Figure 4.4-3 exclusion areas and 50 foot buffer zone along property lines), onsite replacement (see DEIR Figure 4.4-4), and offsite as summarized in the table below.

All documentation associated with on and offsite oak woodland mitigation shall be submitted to the County in accordance with the timeframes identified herein and shall be included in the Annual Compliance Report required by COA No. 2(L), and as necessary at the request of the County to demonstrate compliance.

Summary of Proposed Oak Avoidance, Replacement, and Preservation

Row	Type	Acres	Notes
A	Coast Live Oaks Impact	121	108.3 direct plus 12.4 indirect for root impacts
B	2:1 Ratio Mitigation Package Total	242	
C	Avoidance and Preservation (Onsite)	145	Buffer and exclusion areas onsite
D	Net Additional Mitigation Required	97	Rows B-C
E	Replacement and Preservation (Onsite)	12	Onsite plantings adjacent to existing oaks
F	Additional Replacement and/or Preservation	85	Offsite
G	Total Replacement and Preservation	97	Rows E+F

Project mitigation shall be accomplished through a combination of onsite avoidance and preservation, partial onsite replacement and preservation, and additional offsite preservation (as necessary) in accordance with a plan prepared by a qualified biologist.

1. Avoidance. The proposed project would avoid 136 acres of onsite oak woodlands in the exclusion areas shown on Figure 4.4-3 of the DEIR and as modified by the Permittee. These areas shall be protected via deed restriction in a form acceptable to the County and shall be recorded prior to the commencement of any mining activities in any previously undisturbed area or any new vegetation or Overburden removal activities within the project area.

2. Replacement. A site evaluation of oak woodlands on the project site prepared by an ecologist mapped out areas that appeared suitable for initiating oak replacement plantings (see DEIR Figure 4.4-4), and these activities would provide added benefit of enhancing the age structure of oak woodland at the site. These areas amount to approximately 12 acres of suitable area for potential onsite replacement for partial mitigation of impacts to oaks (additional onsite suitable area may be available upon additional investigation). The oak woodlands evaluation also concluded that planting and/or management practices could be conducted onsite to enhance seedling establishment, improve the age structure of the oak woodlands, and increase the sustainability of the oak stands, although these activities can be a challenge to implement due to the long term commitment requirement, cost and labor intensive management techniques, and remote nature of some of the onsite areas for access for maintenance.

   A qualified biologist shall prepare an oak woodland establishment and restoration plan subject to County approval. Prior to the commencement of any mining activities in any previously undisturbed area or any new vegetation or Overburden removal activities within the project area the Oak Woodland Establishment and Restoration Plan shall be initiated and completed (i.e., all replacement trees identified in the Plan shall be planted). Once the success criteria identified in the plan (as described below) is achieved the Plan will be considered finaled.

   The Plan shall specify the location of a minimum of 12 acres onsite for oak replacement/restoration (generally as shown in Figure 4.4-4 of the DEIR), methods of implementation, plants or propagule source(s), watering (schedule/amounts/duration), and maintenance of the oak woodland replacement areas, including measures to avoid deer browsing, as well as a monitoring protocol. The plan shall also specify minimum success criteria consistent with those identified in Section 6.3.2 (Planting Success Criteria) of the 2016 Mining and Reclamation Plan and COA No. 3(C).

   The Plan and documentation demonstrating planting, survival and success shall be included in the Annual Compliance Report required by COA No. 2(L), and as requested by the County to demonstrate compliance.

3. Offsite Preservation. An additional 85-acres offsite shall be permanently preserved via a conservation easement. Offsite preservation shall be phased

in as part of the project. Based on implementation of provisions H1 and H2 above the removal of approximately 78-acres of oak woodland could occur before offsite mitigation is necessary. Prior to the commencement of Quarry Operations, or vegetation or Overburden removal within any undisturbed areas (including expansions areas), that would remove in total more than 78-acres of onsite oak woodlands (i.e., those areas beyond oak woodland acreage covered by the deed restriction avoidance and replacement onsite) the Permittee shall provide the County with an offsite Oak Woodlands Preservation Plan containing no less than 85-acres of oak woodlands for review and approval by the County.

Offsite location(s) shall be located within the Napa River watershed and be of like quality and habitat value as those being removed, as determined by a qualified biologist and the County. So that offsite mitigation provides the maximum benefit to the area most affected by the project and occurs within the geographic context of the project, preference shall be given to comparable oak woodlands that are located within the close proximity of the Quarry (i.e., within 3.5 miles of the outer portion of the project boundary).

In the event offsite preservation areas are determined to be of lesser quality and habitat value relative to the areas removed from the project site, the County may consider an increase in preserved acreage beyond the required 85 acres to offset the inequity in quality and biological value. The PBES Director will make final determinations related to quality of oak woodlands and any increases in preserved acreage to offset any inequities in quality of the preserved woodland.

If offsite mitigation is determined by the County to be infeasible due to lack of areas suitable for oak woodland replacement or preservation, the County may approve, provided all other replacement and preservation means are exhausted, additional preservation through an in-lieu fee payment. In-lieu fee payments shall be made to the County for the purpose of purchasing and preserving oak woodlands within the Napa River Watershed or to provide payment to the Oak Woodlands Conservation Fund consistent with PRC Section 21083.4 as developed and approved by the County.

L. Mitigation Measure 4.4-10: Creek Buffer Establishment: The Permittee shall provide a setback of a minimum of 85 feet from the upper reaches of Arroyo Creek and provide a setback of a minimum of 60 feet from the lower reach of Arroyo Creek (as shown in Figure 4.4-4 of the project's DEIR) to reduce potential impacts on biological resources and functions consistent with the measurement requirements contained in NCC Chapter 18.108.025.

M. Mitigation Measure 4.5-4: Avoid or Minimize Impacts to Unknown Historical or Archaeological Resources: In accordance with CEQA Guidelines Section 15064.5(f), should any previously unknown prehistoric or historic archaeological

resources, such as, but not limited to, obsidian and chert flaked-stone tools or toolmaking debris, shellfish remains, stone milling equipment, concrete or stone footings, filled wells or privies, or deposits of metal, glass, or ceramic refuse be encountered during vegetation or Overburden removal or other ground disturbing activities, work within 100 feet of these materials shall be stopped, and the Permittee shall, at the Permittee's expense, consult with a professional archaeologist. The Permittee shall notify the County within 24 hours of encountering any cultural resources as a result of mining and quarrying activities and operations, and the County shall inspect the site immediately thereafter to ensure the find is adequately protected.

The archaeologist shall prepare an assessment report and recovery plan to evaluate the significance of the find and identify appropriate mitigation measures as may be necessary if the deposit contains significant archaeological materials. The Permittee shall provide the assessment report and recovery plan to the County Engineering and Conservation Division for review and approval, and those mitigation measures shall be carried out prior to any resumption of related ceased earthwork or quarrying activities. The archaeologist shall also undertake data recovery of the deposit unless the project can be modified to allow the materials to be left in place. Data recovery efforts must follow standard archaeological methods and all significant cultural resource materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards, and the report shall be provided to the County Engineering and Conservation Division as necessary.

In the event that the cultural resources identified within the project area results in a reduction or modification of mining/quarrying boundaries due to avoidance, the 2016 Mining and Reclamation Plan shall be revised by the Permittee and submitted to the County for review and approval.

Documentation of any occurrence that triggers the provisions above shall be included in the Annual Compliance Report required by COA No. 2(L), and as necessary to demonstrate compliance. The County Engineering and Conservation Division shall monitor this requirement.

N. Mitigation Measure 4.5-5: Avoid or Minimize Impacts to Unknown Human Remains: Should human remains, associated grave goods, or items of cultural patrimony be encountered during Quarry or other ground-disturbing activities, the Permittee shall comply with the following procedures as required by Public Resources Code section 5097.9 and Health and Safety Code section 7050.5. In the event of discovery or recognition of any human remains, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Napa County Coroner has determined that the remains are not subject to his or her authority. If the coroner determines the human remains to be Native American, the Permittee shall

contact by telephone within 24 hours, the State Native American Heritage Commission (NAHC). The NAHC shall assign a Most Likely Descendent (MLD). The MLD may provide recommendations regarding the treatment of the human remains and any associated cultural materials. If the Permittee rejects the recommendations and the mediation by NAHC fails to provide acceptable measures, then the Permittee shall rebury the Native American remains and associated grave goods with appropriate dignity on the property, in a location not subject to further subsurface disturbance.

Furthermore, the Permittee shall notify the County within 24 hours of encountering any human remains as a result of mining and quarrying activities and operations that the County Coroner determines to be Native American. The County shall inspect the site immediately thereafter to ensure the find is adequately protected. Prior to any further mining or quarrying activities in areas where human remains have been encountered, the Permittee shall provide documentation that they have consulted with the NAHC regarding the treatment of the human remains. In the event that the human remains identified within the project area result in a reduction or modification of mining/quarrying boundaries, the 2016 Mining and Reclamation Plan shall be revised by the Permittee and submitted to the County for review and approval.

Documentation of any occurrence that triggers these provisions above shall be included in the Annual Compliance Report required by COA No. 2(L), and as requested by the County, to demonstrate compliance.

O. Mitigation Measure 4.5-6: Evaluation and Treatment of Paleontological Resources: If paleontological resources (e.g., vertebrate bones, teeth, or abundant and well-preserved invertebrates or plants) are encountered during project activities, work in the immediate vicinity shall be diverted away from the find and protective fencing shall be installed a minimum of 50 feet from the exterior bounds of the find to protect it until a professional paleontologist assesses and salvages the resource, if necessary.

The Permittee shall notify the County within 24 hours of encountering any paleontological resources as a result of mining and quarrying activities and operations, and the County shall inspect the site immediately thereafter to ensure the find is adequately protected. Prior to any further mining or quarrying activities in areas where paleontological resources have been encountered, the Permittee shall provide an assessment report and salvage plan prepared by professional paleontologist for review and approval by the County. In the event that the paleontological resources are identified within the project area that result in a reduction or modification of mining/quarrying boundaries, the 2016 Mining and Reclamation Plan shall be revised by the Permittee and submitted to the County for review and approval.

Documentation of any occurrence that triggers the provisions above shall be included in the Annual Compliance Report required by COA No. 2(L), and as requested by the County, to demonstrate compliance.

P. Mitigation Measure 4.6-2a: Supplemental Geotechnical Design Criteria: The Permittee shall not locate facilities on unstable slopes, to the extent feasible. Prior to construction of any roads, berms or dams associated with detention/sedimentation basins, or related structures, the Permittee shall, at the Permittee's expense, retain a licensed geotechnical engineer and, when appropriate, a structural engineer to conduct a construction-level geotechnical investigation for the facility(ies). The slope stability inspection reports required by Mitigation Measure 4.6-2b may be included in this report.

The geotechnical investigation shall evaluate seismic hazards and provide recommendations to mitigate the effect of strong ground shaking and unstable soils and slopes to avoid structural failure. The geotechnical study shall provide design criteria to mitigate strong seismic ground shaking. The seismic design criteria shall take into account the active faults in the Napa area.

The geotechnical study shall include an evaluation of unstable land in the areas of stormwater improvements and road construction, including any areas susceptible to liquefaction or settlement, and any areas that may contain expansive soils. The study shall provide measures to repair, stabilize, or avoid such soils or slopes, and may include, but not be limited to:

- Removal and replacement of unstable materials in an existing landslide or in an actively eroding area with a stronger material;
- Grading to remove loose material and provide an acceptably stable topographic configuration by terracing, reducing slope angles, and reducing the height of cut and fill slopes;
- Installation of drainage facilities, such as subdrains and dewatering wells to reduce pore water pressure and reduce the risk of slope failure;
- Covering steep slopes with concrete or vegetation;
- Buttressing the slope or the toe of slopes to provide additional support to the slope. Where buttressing is not feasible, internal reinforcement such as a pinning system or lattice grid can be incorporated into the slope design to strengthen the slope;
- Retaining walls or other external applications to strengthen slopes;
- Placement of slope fencing or other material to stabilize rock fall from cut slope and mitigate hazards from falling rocks;
- Removal of native soils and replacement with engineered fill materials not prone to seismically-induced liquefaction or shrinking and swelling;
- Soil stabilization, such as lime treatment to alter soil properties to reduce shrink-swell potential to an acceptable level; and/or,
- Deepening support structures to a depth where unstable soils are no longer present.

Project facilities shall be designed and constructed in conformance with the specific recommendations contained in design-level geotechnical studies, including recommendations for grading and ground improvement.

The geotechnical investigations and any associated documents or reports required by this measure shall be submitted within 12 months of approval of this Permit and shall be included in the Annual Compliance Report required by COA No. 2(L), and as requested by the by the County, to demonstrate compliance. As necessary the County will either hire a consultant (at the Permittee's expense) assess geotechnical investigations and compliance.

Q. Mitigation Measure 4.6-2b: Slope Stability Criteria: A California registered geotechnical engineer, retained and paid by the Permittee, shall conduct slope stability inspections during excavation of undisturbed areas including the expansion areas. Inspections shall be completed on an annual basis, at a minimum, as well as after heavy rain events (precipitation falling with an intensity in excess of 0.30 inches per hour) or earthquakes with a magnitude of 6.0 or greater. Inspections shall include mapping and movement monitoring of the slopes to assess the potential for project excavation, grading, and Overburden storage to trigger movement of debris flow and landslides. If a slope condition presents a risk to safety or the potential for mass movement, repair measures shall be recommended and promptly implemented by the Permittee. This may include repair, stabilization, or avoidance of landslides and areas of soil creep or possible debris flow. A memorandum summarizing the findings of the inspections and any recommendations shall be prepared and submitted to the Napa County Engineering and Conservation Division and Syar each year. Engineering recommendations for slope repair or stabilization shall be approved by Napa County and incorporated into the 2016 Mining and Reclamation Plan as necessary.

Slope stability inspection reports/memorandums and any associated documents or reports required by this measure shall be submitted within 12 months of approval of this Permit and shall be included in the Annual Compliance Report required by COA No. 2(L), and as requested by the County, to demonstrate compliance. As necessary the County will hire a consultant (at the Permittee's expense) to assess slope stability memorandums/reports and compliance.

R. Mitigation Measure 4.7-2: Standard operating procedures (SOPs) shall be used during the handling of hazardous materials for the operation and maintenance of vehicles and equipment; and an approved Hazardous Material Business Plan shall be maintained for the project site:

1. Syar shall develop SOPs for the use of hazardous materials including fuels and lubricants used onsite prior to implementation of the project including any vegetation or Overburden removal, mining or quarrying activities, or earth-disturbing occurring in undisturbed areas. Quarry personnel shall follow

written SOPs during onsite operation and maintenance of all equipment. The SOPs, which are designed to reduce the potential for incidents involving hazardous materials, shall include the following information and protocols:

- Refueling shall be conducted only with approved pumps, hoses, and nozzles.
- Catch-pans shall be placed under equipment to catch potential spills during servicing.
- All disconnected hoses shall be placed in containers to collect residual fuel from the hose.
- Vehicle engines shall be shut down during refueling.
- No smoking, open flames, or welding shall be allowed in refueling or service areas.
- All refueling, maintenance of vehicles and other equipment, handling of hazardous materials, and staging areas shall occur at least 100 feet from water courses, existing groundwater wells, and any other water resource to avoid the potential for risk of surface and groundwater contamination.
- Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents.
- A spill containment kit that is recommended by the EHD or local fire department shall be onsite and available to staff if a spill occurs.
- A rinse water containment area shall be established outside the proposed creek setbacks and away from any areas that could potentially drain offsite or potentially affect surface and groundwater quality. When Quarry equipment is cleaned, only rinse water that is free of gasoline residues, other chemicals, and waste oils is allowed to diffuse back into the Quarry area. No rinse water shall be drained to a septic system or discharged to ground or surface water to prevent the release of hazardous materials into the environment during operation and maintenance of the proposed project.
- To prevent the accidental discharge of fuel or other fluids associated with vehicles and other equipment, all workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

In the event that contaminated soil and/or groundwater or other hazardous materials are generated or encountered during Quarry Operations, all work shall be halted in the affected area and the type and extent of the contamination shall be determined by the EHD. Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with federal, state, and local regulations. If containment and size of the spill is beyond the scope of the attending personnel, proper authorities shall be notified. The Permittee shall notify the County Engineering and Conservation Division and the EHD within 24 hours of any potential soil or groundwater contamination that has occurred or is a result of Quarry Operations.

2. Syar's Hazardous Materials Business Plan (HMBP) shall be updated annually as required by law. Syar shall amend the existing HMBP inventory form for the Syar Napa Quarry, in accordance with state law, in the following instances if warranted as a result of the project:
   - A 100 percent or more increase in the quantity of a previously disclosed material; or,
   - Any handling of a previously undisclosed hazardous material above the reportable quantity thresholds of 500 pounds of solid, 55 gallons of liquid or 200 cubic feet of gas.

3. The Permittee's HMBP shall also meet the standards of the *Hazardous Material Business Plan and Emergency Action Plan* (Napa County Department of Environmental Management, 2008 or as amended) and shall be subject to approval by Napa County. The amended HMBP shall include: an inventory of the type and quantity of hazardous materials stored onsite; a site map; risks of using the hazardous materials; spill prevention methods; Emergency Response Plan; employee training and Emergency contact information.

4. The HMBP shall also include a review of each chemical used onsite and a determination on whether any substitution with less hazardous chemicals can be made. Changes shall be made as appropriate. The hazardous materials inventory, site map, Emergency Response Plan, business owner form, and business activities form must be submitted to the EHD. The Permittee shall notify the EHD within 30 days of any change in storage of a hazardous material or if there is a 100 percent increase in quantity of a hazardous material previously disclosed in the HMBP. An employee training record shall be filed onsite and may be inspected by the EHD once every 3 years.

5. Waste oil containers shall be stored in secondary containments that include oil-impervious bermed areas or liners, retaining walls, and/or are stored on impervious concrete floors. Waste oil containers shall be covered during rain events and shall not be stored within any buffers, creek setback, or other exclusion areas. Waste oil containers shall be labeled "waste oil". The containers shall also be labeled with the following information: accumulation start date; the hazardous properties of the waste (ex. flammable, corrosive, reactive, toxic, etc.) and the name and address of the facility generating the waste. All waste oil containers shall be transported offsite by a licensed transporter and taken to a waste oil recycling facility.

6. The SOPs, amended/updated HMBP, and any associated documents or reports required by this measure shall be submitted within 12 months of approval of this Permit and shall be included in the Annual Compliance Report required by COA No. 2(L), and as requested by the County, to demonstrate compliance.

S. Mitigation Measure 4.8-1: Update Industrial Storm Water Pollution Prevention Plan to address new land disturbance and operations changes: Prior to initiation of any vegetation removal, earthmoving or earth-disturbing activities, or quarrying or mining activities **occurring** in any undisturbed areas (including any expansion areas) and annually as necessary, the Permittee shall update Syar Napa Quarry's existing Industrial SWPPP (WDID No. 228I005111) to reflect additional areas of land disturbance and changes in operation resulting from the project. The Permittee shall modify the SWPPP as the project progresses and as conditions warrant to remain consistent and compliant with SWRCB Order No. 2014-0057-DWQ[1], Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

The updated SWPPP shall identify the sources of pollution that may affect the quality of industrial stormwater discharges and authorized non-storm water discharges, and describe and ensure the implementation of BMPs to reduce or prevent pollutants in industrial stormwater discharges. The updated SWPPP shall also include monitoring measures and other requirements contained in Order No. 2014-0057-DWQ. Implementation of the SWPPP shall include reviews, inspections or monitoring by the County Engineering and Conservation Division on a quarterly basis. The Permittee shall continue to compare quarterly monitoring results to current and future EPA suggested benchmark levels (i.e., Numeric Action Levels (NAL) identified in Order No. 2014-0057-DWQ) to determine the effectiveness of onsite control measures and make adjustments accordingly. No discharges from the site shall exceed 100 mg/l of Total Suspended Solids or 200 umho/cm (i.e., micromhos per centimeter) of Specific Conductance[2]. In addition the project shall not result in a net increase in sediment load. Quarterly monitoring reports shall be submitted to the County for review to determine compliance and corrective actions to achieve benchmarks and assess the effectiveness of previously implemented BMPs.

Should ongoing oversight by the County Engineering and Conservation Division or the EHD show any exceedances of EPA Benchmarks that have persisted for more than 12 months (that are not attributed to naturally occurring environmental conditions, or background conditions), the Permittee shall, within 30 days of notification by the County, implement additional or new BMPs to adequately address the exceedances.

The updated SWPPPs and any associated documentation, including annual monitoring reports submitted to the RWQCB shall be submitted within 12 months of approval of this Permit and shall be included in the Annual Compliance Report required by COA No. 2(L), or as requested by the County to demonstrate compliance. Updated SWPPPs will be appended to the 2016 Mining and

[1] Industrial General Permit (IGP) adopted by the SWRCB April 1, 2014, effective date July 1, 2015: replaces IGP Order no. 97-03-DWQ that expires June 30, 2015.
[2] Source: Table 4.8-2 of the Draft Environmental Impact Report.

Reclamation Plan as necessary in order to satisfy the erosion and sediment control of SMARA.

T. Mitigation Measure 4.8-2: Avoid depleting groundwater supplies or interfering with groundwater recharge mechanisms including maintaining a 10-foot vertical separation between final grade and regional groundwater potentiometric elevation: The Permittee shall maintain existing volumes of groundwater recharge and shall ensure that a vertical buffer of undisturbed native soil/rock remains in place which maintains the final grade elevation no closer than 10 feet above the spring season regional groundwater potentiometric elevation. The Permittee shall not excavate and/or mine material within 10 feet of the regional groundwater potentiometric surface to prevent the creation or expansions of open water bodies subject to evaporation or springs which can drain regional groundwater to surface drainages or creeks.

To avoid depleting groundwater supplies in all mined areas within the Syar Napa Quarry the grade of the excavation shall be maintained at a minimum of 10 feet above the elevation of the regional groundwater potentiometric elevation. This mitigation will preclude regional groundwater from discharging as surface water. To ensure that groundwater infiltration/recharge volumes are maintained, pre-project (baseline) infiltration volumes shall be compared with project groundwater infiltration volumes. If there is a deficit, BMPs shall be adjusted or consumptive use of water shall be curtailed until groundwater recharge volumes are greater than or equal to pre-project volumes. Pre-project infiltration volumes were calculated at 685 acre-feet per year in the Arroyo Creek watershed/drainage and 442 acre-feet in the State Blue watershed/drainage, totaling 1,067 acre-feet per year (see Figure 4.8-2 of the DEIR).

For the upper reaches of the site, this mitigation measure shall be achieved through a combination of best management practices (BMP's) that entail: managing recharge areas [or detention/infiltration ponds] so that pre-project (baseline) groundwater infiltration volumes are maintained, limiting the depths of excavation and or mining to 10 feet above the regional groundwater table and, limiting the depths of excavation and or mining near Arroyo Creek so as to not change the flow path of the creek.

For the lower reaches of the site (and any offsite interactions), this mitigation measure shall be achieved by maintaining pre-project flow conditions in Arroyo Creek. These conditions include the flow rates, timing of peak runoff, and volume of water in the creek. This mitigation measure requires the monitoring of stream flow in the lower reach of Arroyo Creek. Impacts to the amount of water and timing of peak flows entering the creek are managed through the use of surface grading, surface cover, and detention basins.

It is expected that the actual elevation of regional groundwater potentiometric elevation will vary from the estimates provided in Figure 4.8-6 of the DEIR.

Adherence with this mitigation measure requires accurate and contemporary understanding of the regional groundwater potentiometric elevation under the Syar Napa Quarry. This understanding is necessary in order to avoid excavating into the 10-foot vertical buffer zone. To accomplish this and to obtain the data necessary to comply with this mitigation measure, the Permittee shall provide the County with an Annual Groundwater Elevation Monitoring and Use Report, prepared under the direction of a qualified Professional Engineer or Professional Geologist, that quantifies the groundwater potentiometric elevations during spring of each year (when groundwater elevations are expected to be highest at the Quarry) and through the following means:

1. The Permittee shall monitor stream flow and pond elevation throughout every year the Quarry is in operation. This information, along with publicly available climactic data, shall be used to calculate the groundwater infiltration volumes quarterly, in a manner consistent with Appendix J of the DEIR. The results of the monitoring and water balance infiltration analysis shall be provided to the County quarterly and be included in the Annual Groundwater Elevation Monitoring and Use Report.

2. The Permittee shall install piezometers or monitoring wells as required to quantify the regional groundwater potentiometric elevation in areas of active mining prior to any mining excavation that will cause an increase in mining depth beyond existing conditions and/or is likely to extend to within 50 feet of the groundwater elevations presented on Figure 4.8-6. The results of groundwater potentiometric elevation monitoring shall be provided to the County quarterly and be included in the Annual Groundwater Elevation Monitoring and Use Report which is required by this mitigation measure. All excavation activity at the Quarry shall be conducted to maintain a 10 foot separation of undisturbed native soil/rock between the finished grade and the underlying groundwater potentiometric elevation as determined by the most recent Annual Groundwater Elevation Monitoring and Use Report. Increased mining depth in areas that are already at or below the groundwater potentiometric elevation, including but not limited to the State Blue Pit, shall not occur.

3. To determine the location, number, and timing of piezometer or monitoring well installation that are necessary to accurately determine the groundwater potentiometric elevation in areas of active mining, the Permittee shall provide a monitoring piezometer/well plan prepared by a qualified Professional Engineer, Professional Geologist, or Professional Hydrogeologist to the County for review and approval prior to commencing any mining activities that would increase the depth of mining beyond existing conditions. The monitoring piezometer/well plan shall also be included in the Annual Groundwater Elevation Monitoring and Use Report.

4. To avoid interfering with the groundwater recharge mechanisms, the Permittee shall also ensure that any subsurface flow in fractures or soil that is exposed or intercepted by the excavation shall be reinfiltrated within the same watershed boundaries. Any surface water that is not the direct result of surface water runoff during rain events shall be infiltrated or directed to areas that provide groundwater infiltration onsite (such as project detention ponds/basins) and within the same watershed and as depicted on Figure 4.8-10. Surface water which is the direct result of rain events shall be infiltrated to groundwater or directed to the existing channels. Spring season monitoring shall be conducted by the Permittee concurrent with SWPPP monitoring (required by COA No. 11(S) - Mitigation Measure 4.8-1) to verify that springs and subsurface flow exposed as a result of mining activities is infiltrated back into the subsurface before reaching the surface flow channels. If persistent springs are formed by mining activities the Permittee shall hire a qualified professional to assess springs and provide an evaluation to the County to determine if the elevation of these springs are part of the regional groundwater potentiometric surface; if so, mining shall not advance further below this elevation.

5. Existing Well No. 4 could be activated for groundwater extraction. The extraction of groundwater from Well No. 4 shall be subject to the groundwater extraction limitation of 140.6 acre-feet per year pursuant to Mitigation Measure 4.4-8 and COA No. 2(D) and 11(V).

Any monitoring reports, including annual documentation of groundwater infiltration/recharge volumes and mining elevations in relation to the estimated regional groundwater potentiometric elevations (presented in DEIR Figure 4.8-6), and documentation of any exploratory borings and/or monitoring wells required to be installed or that have been installed, shall be submitted within 12 months of approval of this Permit and shall be included within the Annual Groundwater Elevation Monitoring and Use Report required by this measure. Additionally, any documentation required by this mitigation measure shall also be included in the Annual Compliance Report required by COA No. 2(L), or as requested by the County to demonstrate compliance.

U. Mitigation Measure 4.8-3: Avoid reducing the groundwater potentiometric elevation by increasing consumptive use of surface water or surface occurrence of regional groundwater as a result of Quarry activities: The Permittee shall ensure that all water extracted from open bodies of water that are at the regional groundwater potentiometric elevation shall be reinfiltrated in surface detention/infiltration basins within the same watershed from which the extraction occurs (i.e., the State Blue or Arroyo Creek watersheds) or it will be considered a consumptive use of groundwater. This will prevent depletion of the groundwater resource by consumptive use of water derived from open bodies of water such as State Blue Pit. This Mitigation Measure 4.8-3 shall not apply to the draining of ponded surface water which is at an elevation higher than the

underlying regional groundwater potentiometric elevation, provided the water is not used outside of the watershed it was derived from. Ponded surface water which occurs in temporary low areas in active mining areas may be pumped to detentions ponds within the same watershed for reinfiltration purposes.

As part of Quarry activities, water may be pumped from open water bodies such as State Blue Pit for consumptive Quarry activities such as dust control and other uses where the water is not reinfiltrated. The volume of groundwater that is pumped from those water bodies where the water surface elevation is effectively the same as the regional groundwater potentiometric elevation (i.e., State Blue Pit) shall be considered part of the maximum allowable annual groundwater use allocation of 140.6 acre-feet per year for the project. Consumptive use from open water bodies such as State Blue Pit shall be recorded and considered a part of the groundwater allocation in the same manner as the groundwater pumping from the Quarry Well. The volume of water used to wash materials shall not be included in the quantification of groundwater use if it is returned to the aquifer by reinfiltration. The volume of wash water returning to detention ponds for infiltration is not considered in quantifying groundwater use because it is not a consumptive use of groundwater.

To help ensure that groundwater infiltration volumes are not decreased, pre-project infiltration volumes shall be compared with project groundwater infiltration volumes. If there is a deficit, BMPs shall be adjusted or consumptive use of water shall be curtailed until groundwater recharge volumes are greater than or equal to pre-project volumes. Pre-project infiltration volumes were calculated at 685 acre-feet per year in the Arroyo Creek drainage and 442 acre-feet in the State Blue Pit drainage, totaling 1,067 acre-feet per year.

Maintaining groundwater recharge volume shall be addressed by routing stormwater runoff to existing ponds or new surface detention/infiltration basins that shall be constructed on recharge areas to ensure that groundwater infiltration volumes are equal or greater than pre-project groundwater infiltration volumes. To ensure that existing volumes of groundwater recharged are maintained the Permittee shall monitor pond elevation throughout the year. This information, along with publicly available climactic data, shall be used to calculate the groundwater infiltration volumes quarterly, in a manner consistent with Appendix J of the DEIR. The results of the monitoring and water balance infiltration analysis shall be provided to the County quarterly and be included in the Annual Groundwater Elevation Monitoring and Use Report.

Monitoring reports required by this measure shall be submitted within 12 months of approval of this Permit and shall be included within the Annual Groundwater Elevation Monitoring and Use Report required pursuant to COA No. 11(T) (Mitigation Measure 4.8-2). Additionally, reports required by this mitigation measure shall also be included in the Annual Compliance Report required by

COA No. 2(L), and as necessary or requested by the County to demonstrate compliance.

V. Mitigation Measure 4.8-4: Avoid depleting groundwater supplies by water reuse.

No additional groundwater from existing sources is available to accommodate the additional water demand of the proposed project. The Permittee's maximum allowable annual groundwater usage for all Quarry Operations and associated activities shall not exceed 45.8 million gallons (or 140.6 acre-feet) per year. This mitigation measure includes metering to verify that demands upon water resources are not exceeded. This mitigation measure also includes accommodating any additional water demands with a combination of water reuse or water conservation methods.

In order to document the use of the existing water sources, the Permittee shall continuously monitor, meter and maintain records of all water use at the Quarry site. The Permittee shall review the monitoring data on a monthly basis to confirm the status of its annual water use. The total of groundwater/surface water used for Quarry Operations shall be totaled and reported monthly to the County. These monitored sources shall include:

1. Groundwater from the Quarry Well and Latour Well, or any other existing groundwater well related to the project that could have a similar impact (i.e., Well No. 4);

2. Water collected from open water bodies in contact with the regional groundwater potentiometric elevation (as identified in Mitigation Measures 4.8-2 and 4.8-3); and/ or

3. Impounded surface water that would otherwise infiltrate to groundwater.

Monitoring reports required by this measure shall be submitted to the County within 3 months of approval of this permit and shall also be included within the Annual Groundwater Elevation Monitoring and Use Report required pursuant to Mitigation Measure 4.8-2. Additionally, reports required by this mitigation measure shall also be included in the Annual Compliance Report required by Condition of Approval No. 2L, and as requested by the County to demonstrate compliance.

If any existing wells (i.e., Well No. 4) are brought into production due to the Quarry Well or Latour Well becoming inactive due to necessary repairs or other circumstances. The extraction from these wells shall be included in the annual usage total that is not to exceed 140.6 acre-feet per year. New groundwater well(s) shall not be drilled pursuant to this Permit. All consumptive use of groundwater shall not exceed 140.6 acre-feet per year.

On-site water that is used which can be used non-consumptively such as a controlled process were the water is used for sand washing and then recharged to the groundwater through a detention basin would not be included in the total of water used for the Quarry if it can be demonstrated through monitoring and reporting as part of the annual water usage report that it is recharged to groundwater.

The Permittee shall also off-set additional water demands by reusing water and increasing processing efficiencies. This could include gravel, pavement, and surfactant application to roadways and production areas to reduce dust generation and the need for dust suppression by water application, as discussed in Mitigation Measure 4.3-2b and Draft EIR, Appendix J. It could also include process revisions to increase efficiencies and reuse sand wash water rather than allow the water to drain off as surface water or to allow it to evaporate in shallow ponds that have low infiltration benefit.

This Permit does not authorize the consumptive use of water from any source in excess of 140.6 acre-feet per year, regardless if obtained from outside the Milliken-Sarco-Tulucay (MST). This Permit does not authorize the importation of water from any off-site source. The County Engineering and Conservation Division shall monitor this requirement. Compliance of this measure shall be subject to Article VI (Enforcement) of NCC Chapter 16.12 (Surface Mining and Reclamation).

W. Mitigation Measure 4.8-5: Reduce Potential for Offsite Runoff: The Permittee shall design and construct detention ponds in the mined watersheds to reduce stormwater runoff volume, rates and sedimentation in addition to maintaining infiltration to groundwater. The specific locations of these detention ponds shall be determined during the development of the grading and drainage plans, as required by the County's Surface Mining and Reclamation Ordinance (NCC Chapter 16.12). The Permittee shall submit a final detailed design-level hydrologic and hydraulic analysis within 12 months of approval of this Permit as part of the annual mining plan (that is a component of the project's 2016 Mining and Reclamation Plan) to the Napa County Engineering and Conservation Division detailing the implementation of the proposed drainage plans, including detention pond facilities that shall conform to the following standards and includes the following components:

1. Peak runoff in 2, 10, 50, and 100 year storm events during the years of active mining and at the end of mining shall not exceed existing conditions. The final grading and drainage plan, including detention pond designs, shall be prepared by a California licensed Professional Engineer. All design and construction details shall be depicted on the grading and drainage plans (or SWPPP) and shall include, but not be limited to, inlet and outlet water control

structures, grading, designated maintenance access, and connection to existing drainage facilities.

2. The Napa County Engineering and Conservation Division shall review and approve the grading and drainage plans prior to implementation to ensure compliance with Napa County standards. The Permittee shall implement any additional improvements deemed necessary by the County.
3. Once constructed, the drainage components, including detention ponds designed for the watersheds, shall be inspected by the County's Engineering and Conservation Division annually to ensure they are maintained per the guidelines outlined in the Sediment Basin BMPs found in the Napa Quarry SWPPP. The Permittee shall ensure that all disturbed areas of the Quarry are graded and maintained in conformance with the approved grading and drainage plans or SWPPP, and are designed in such a manner as to direct stormwater runoff to a properly sized detention pond.
4. All calculations, plans, and reports required by this mitigation measure shall also be included in the Annual Compliance Report required by COA No. 2(L), or as requested by the County to demonstrate compliance.

X. Mitigation Measure 4.8-6: Update Industrial Storm Water Pollution Prevention Plan to address hazardous materials spill response actions: The Permittee shall revise its Spill Prevention and Countermeasure Plan, Hazardous Materials Business Plan, and Emergency Response Plan as necessary to directly address the potential for a spill or release of hazardous material near or into a water body that is directly connected to the regional aquifer. The revision shall include provisions for training in spill response and containment and maintaining access to the needed equipment to respond to a spill. The revisions to the plan will also contain provisions to eliminate or minimize the storage of hazardous materials in areas which drain to portions of the project site where the regional groundwater is exposed. These revisions shall then be incorporated into the SWPPP by summary and reference. The Permittee shall provide the revised Spill Prevention and Countermeasure Plan, Hazardous Materials Business Plan, and Emergency Response Plan to the County for review and approval within 12 months of approval of this Permit.

Thereafter, any time the Spill Prevention and Countermeasure Plan, Hazardous Materials Business Plan, and Emergency Response Plan is revised or updated it shall also be submitted to the County in the Annual Compliance Report required by COA No. 2(L), or as necessary to demonstrate compliance. If the County finds that the Permittee has not revised and updated the plan as necessary the Permittee shall have 30 days to submit the plans to the County for review and approval. Compliance with this measure shall be subject to NCC Sections 16.12.600 through 16.12.660 (Surface Mining and Reclamation – Enforcement).

Y. Mitigation Measure 4.11-1: Noise Restrictions in Expansion Area North and East of the State Blue Pit and Snake Pit (Pasini Parcel): To reduce noise

impacts of mining, quarrying, and associated operations the Permittee shall adhere to the following:

1. No Aggregate Mining Operations shall occur between the hours of 6:00 PM and 7:00 AM in mining expansion areas to the north and east of the State Blue Pit where there are residences not shielded by intervening terrain.

2. With the exception of blasting and the removal of Overburden the Permittee shall:
   a) Limit daytime Aggregate Mining Operations to between the hours of 7:00 AM and 12:00 PM in unshielded areas to the north and east of the State Blue Pit or Snake Pit areas within 2,500 feet of the nearest sensitive receptors (residences, schools, or trails within Skyline Wilderness Park);
   b) Ensure that noise levels at the nearest receptor locations north or east of the Quarry shall not exceed 50 dBA L50 from 7:00 AM to 10:00 PM and 45 dBA L50 from 10:00 PM to 7:00 AM.

3. The Permittee shall utilize the following measures or equivalent:
   a) Maintain acoustical shielding for receivers north or east of the Quarry so that existing terrain features provide the maximum amount of shielding for the longest time possible.
   b) Use the quietest available equipment when removing topsoil and Overburden (e.g., well-maintained, modern equipment such as higher Tier engines, having sufficient engine insulation and mufflers, electric or hydraulic powered equipment, or equipment operation settings at the lowest possible power levels).
   c) Conduct noise monitoring and maintain noise monitoring reports to ensure that daytime noise levels from aggregate mining and operations do not exceed 50 dBA L50 at the nearest receptor locations north and east of the Quarry (i.e., along the northern and eastern property lines in the vicinity of the State Blue Pit or Snake Pit areas), which are areas where monitoring sites should be located. Noise monitoring shall be conducted daily for the first 5 years of this Permit. Thereafter the Planning Commission shall determine the extent of ongoing noise monitoring as part of their project and permit review required by COA No. 1(F). Noise monitoring reports shall be submitted monthly to the EHD and Engineering and Conservation Divisions, or upon request, to verify compliance. If determined necessary by the PBES Director, the County may hire a consultant (at the Permittee's expense) to assess compliance or retain (at the Permittee's expense) a third party to prepare an independent noise monitoring study.
   d) Noise monitoring results shall also be submitted to the County in the Annual Compliance Report required by COA No. 2(L), or as necessary to demonstrate compliance. If the County finds during annual compliance review that noise levels of Quarry Operations are excessive, the Permittee shall modify Quarry Operations or the 2016 Mining and Reclamation Plan so that the noise limits identified herein are not exceeded.

Z. Mitigation Measure 4.11-2: Blasting Vibration Reduction Measures: To reduce vibration impacts, the Permittee shall:

1. Monitor peak particle velocity and peak sound pressure during each blast event to ensure that vibration levels are under 0.20 in/sec peak particle velocity (PPV) and air-blast overpressures are under 133 dB(L) at sensitive land uses (residences and schools). Monitoring sites shall be located along the northern property boundary and along Imola Avenue adjacent to sensitive land uses. Blasts shall be modified to reduce the charge weight per delay. The charge weight per delay shall not exceed 175 lbs. for blasting near the northernmost property boundary (i.e., within 1,000 feet) to maintain vibration levels below 0.20 in/sec PPV and air-blast overpressures below 133 dB(L) at sensitive land uses.
2. The effectiveness of this measure shall be demonstrated to the County by submittal of vibration calculations/measurements and monitoring records for each blast event that are satisfactory to the County for effectiveness review. Monitoring records shall be provided to the EHD and Engineering and Conservation Divisions monthly, or as necessary at the request of the County, to demonstrate and verify compliance with this measure. If the County finds that the Permittee has not maintained the required vibration levels during blasting events, the Permittee shall immediately lower charge weights as necessary, below the limits identified above, until required reductions have been achieved.
3. Conduct stemming and burdening (filling the drilled holes with dirt and rock above the explosive charge) of the blast holes to confine the blast charges into the ground and to minimize acoustic overpressure levels.
4. Vibration monitoring records shall also be submitted to the County in the Annual Compliance Report required by COA No. 2(L) to demonstrate compliance. If the County finds during annual compliance review the Permittee has not maintained the required vibration levels during blasting events, the Permittee shall reduce charge weights as necessary to ensure specified vibration levels are not exceeded. As necessary the County may hire a qualified professional (at the Permittee's expense) to assess compliance.

AA. Mitigation Measure 4.17-2: Greenhouse Gas Emission Reduction: To reduce greenhouse gas emissions, the Permittee shall prepare a Greenhouse Gas Reduction Plan (GHG Reduction Plan).

The GHG Reduction Plan shall identify the measures to be used to reduce the GHG emissions associated with the project below the 1,100 MT CO2e annual land use threshold (or increase of 1,100 MT CO2e over baseline conditions). The effectiveness of each measure in the GHG Reduction Plan shall be quantified, indicating its contribution to the reduction of GHG emissions. The Permittee shall

choose from, but not be limited to, the following measures to incorporate into the GHG Reduction Plan:

- Fuel on-road and off-road vehicles with alternative fuels (such as hybrid, biodiesel, and electric);
- Plant native trees and vegetation that have low emissions of volatile organic compounds species for carbon sequestration in locations at the project site not to be disturbed by quarrying activities;
- Replace diesel-powered vehicles with newer model, low-emission vehicles or replace diesel engines with higher fuel efficiency engines or use retrofit emission control devices, such as diesel oxidation catalyst, verified by the California Air Resources Board as old vehicles or engines no longer become operable;
- Develop a monitoring program that reduces diesel-fueled idling times beyond that required under the California Air Resources Board Heavy-Duty Vehicle Idling Emission Reduction Program;
- Require that on-road haul trucks that are under contract with the Quarry operator use 2003 model or newer trucks;
- Establish an onsite renewable energy system (such as solar);
- Install a conveyor system to move raw material;
- Install an automated load out system; and
- Contribute to a State or County offset mitigation program.

The GHG Reduction Plan shall be reviewed and approved by PBES Department and shall be updated as necessary to address changing conditions and regulations.

Prior to implementing the GHG Reduction Plan, the Permittee shall monitor GHG emissions bi-annually in a GHG inventory submitted to the County for review. The first inventory shall be calculated as a 3-year average after issuance of the use permit (for example, if the use permit is issued in 2014, then the first inventory shall be performed in 2018 for years 2015 through 2017). A 3 year average would accommodate the variability in aggregate sales from year to year. The inventory shall follow the most recent version of the General Reporting Protocol of the California Climate Action Registry or other protocol as appropriate and approved by the County (CCAR 2007). The Permittee, however, is not required to report the inventory to the Climate Action Registry Reporting Online Tool (CARROT) (CCAR 2011). The purpose of the inventory is to compare emissions from project operations to the baseline emissions established in this EIR, which is approximately 7,200 MT CO2e per year (if new baseline emissions are established as a result of refined reporting methods, the use of a different baseline is acceptable with approval by the County). At such time as the inventory indicates GHG emissions are at or over baseline conditions (7,200 MT CO2e per year), then the Permittee shall implement measures in the GHG Reduction Plan as necessary to avoid emissions above the 1,100 metric ton threshold (i.e.: 8,300 MT CO2e per year – baseline plus threshold).

12. DEFINITIONS:

The definitions of those words or phrases found in Section 16.12.030 of the NCC are incorporated herein by reference. In addition, unless context otherwise requires, the words and phrases below shall have the following meanings related to this Permit:

"Aggregate" or aggregate materials shall mean basalt and rhyolite which are the primary mineral resources mined at the facility.

"Aggregate Mining Operations" shall mean those activities associated with aggregate extraction and harvesting including removal of vegetation and Overburden, blasting, sorting and transport of aggregate and aggregate-related materials, and/or Overburden to aggregate processing facilities or stockpile locations.

"Aggregate Processing Operations" shall mean those activities associated with aggregate crushing, sorting and processing occurring only at the Primary Aggregate Processing plant (i.e., the Blue Rock Plant), the Aggregate Base (AB)/Recycling plant, and the Sand Plant.

"Aggregate-Related Materials" shall include; asphalt, sand, recycled concrete, reclaimed asphaltic product, materials that are used as a component in the production of other materials, and onsite and interplant transfers.

"Aggregate Sales" shall mean those activities associated with the sale of aggregate materials.

"Asphalt" shall mean asphaltic concrete (AC) produced at the facilities 2 existing hot mix AC plants.

"Asphalt Plant Operations" shall include those activities associated with processing and manufacturing of asphalt concrete at the facility's 2 AC plants.

"Asphalt Sales" shall mean those activities associated with the sale of asphalt.

"Blasting" and "blasting operations" or "events" shall mean the component of Aggregate Mining Operations that utilizes explosives to dislodge and extract aggregate materials.

"Completion of Mining" in areas of identified and/or active Aggregate Mining Operations, shall mean when Aggregate Mining Operations have reached the Limits of Vertical Excavation identified in the 2016 Mining and Reclamation Plan and/or has reached the minimum 10 feet of vertical separation from the regional groundwater potentiometric elevation prescribed by Mitigation Measure 4.8-2, and/or that have not been actively mined for 3 years. The determination that Aggregate Mining

Operations are complete in any give operational area of the Quarry Facility shall be at the discretion of the Planning Director.

"Construction Season" shall mean activities occurring from June 1st to November 30th.

"Effective Date of this Permit" shall mean the later of the date of approval or resolution of appeal and/or litigation.

"Emergency" shall mean the existence of conditions of disaster or of extreme peril to the safety of persons and property within the county caused by such conditions fire, flood, storm, earthquake or other natural disaster.

"Major Holidays" shall mean all federally recognized holidays

"MRP" shall mean the Syar Industries Napa Quarry Mining and Reclamation Plan (September 29, 2016) and as revised and updated pursuant to the conditions of approval and mitigation measures of Permit No. P08-00337-SMP.

"NCC" means the Napa County Code.

"Off Season" shall mean activities occurring from December 1st to May 31st.

"Overburden" means soil, rock or other materials that lie above a mineral deposit or in between mineral deposits, before or after their removal by aggregate or surface mining operations.

"Pasini Parcel" shall mean the project parcel identified as Assessor's Parcel Number 046-390-002-000.

"Permit" shall mean Surface Mining Permit No. P08-00337-SMP.

"Permittee" means the Applicant, owner, the operator, or any duly authorized representative of the owner or operator, and/or any successor in interest.

"project" shall be the project authorized and regulated under this Permit.

"Property" shall mean the parcels within the project area holding identified as Assessor's Parcels Numbers: 045-360-005, 046-370-012, 046-370-013, 046-370-015, 046-370-022, 046-370-025, 046-390-002, 046-390-003 and 046-450-071.

"Quarry Facility" shall include all mining/quarry areas as identified in the Mining and Reclamation Plan and associated support facilities identified in Figure 3.

“Quarry Operations” shall include all Aggregate Mining, Aggregate Processing, and Asphalt Plant Operations (as defined) including operational components associated with the Quarry support facilities identified in Figure 3.

“tpy” means tons per year.

Attachments

Figure 1 – Draft Environmental Impact Report Figure 3-4 (project Activities/Areas) and Figure 3-5 (Limits of Vertical Excavation)
Figure 2 – Syar project modification letter dated March 17, 2015
Figure 3 – Syar Napa Quarry: Aggregate Processing, Sales, and Office Facilities
Figure 4 – Syar Industries, Inc. Blasting Procedures