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Director

To: Chair Phillips and Members of the Planning Commission	From: Donald Barrella Planner III
Date: October 14, 2015	Re: Syar Napa Quarry Surface Mining Permit P08-00337 Background and Discussion October 21, 2015 Commission Meeting

BACKGROUND AND DISCUSSION

A. CEQA Determination

Prior to approving a project for which an EIR has been prepared, there are two procedural steps that must be satisfied under CEQA: (1) certification of the EIR; and (2) adoption of CEQA findings. A proposed Resolution certifying that the Final EIR complies with CEQA, the State CEQA Guidelines and the County's local procedures for implementing CEQA, and reflects the Commission's independent judgment and analysis is included for the Commission's consideration and adoption (See Attachment D of the October 21st Commission meeting report).

Subsequent to EIR certification the Commission will need to: (a) adopt findings and if necessary a statement of overriding considerations; (b) reject project alternatives; (c) adopt the project, or an alternative, or a combination of alternatives; (d) adopt a mitigation monitoring and reporting program; and (e) render a decision on Surface Mining Permit No. P08-00337-SMP.

The Draft EIR was circulated for public review and comment on September 6, 2013. The statutory 45 day review and comment period pursuant to CEQA was extended an additional 45 days at the request of the public, resulting in a 90 day review and comment period. The formal comment period closed on December 5, 2013. Public hearings on the Draft EIR took place on October 2, 2013 in front of the Planning Commission (a.m.) and the Napa County Main Library (p.m.).

Final EIR

A Final Environmental Impact (Final EIR) has been prepared and circulated. Written responses to comments received during the public review and comment period have been incorporated into the Final EIR (November 2014) which consists of the Draft EIR (August 2013), public and agency comments, responses to comments, and required clarifications and changes to the text of the Draft EIR. As a result of additional comments received before, during and after the January 7th Commission hearing on the adequacy of the EIR (primarily associated with Aesthetics, Air Quality, Hydrology, and Noise and Vibration), master responses that expand on and clarify responses within the Final EIR (November 2014) related to these impact categories were developed and incorporated into the Final EIR via *Appendix B to*

the Final EIR: Master Responses to comments received after Publication of the November 2014 Final EIR, June 2015).

Before the August 12th Commission hearing additional comments were once again submitted questioning the adequacy of the EIR primarily related to Air Quality and Greenhouse Gas Emissions, Hydrology and Water Quality, Noise and Vibration, and Transportation impact analysis and mitigation. Additional expanded and clarifying responses to these comments as they relate to the referenced impact categories have been developed and will be incorporated into the Final EIR. Responses to these most recent substantive comments are attached to the October 21, 2015, staff report as Attachment B (*Appendix C to the Final EIR, Syar Napa Quarry Response to August 2015 Comments, October 2015*).

Upon direction to Staff regarding approval of the proposed project, one of the alternatives or a combination thereof, Staff would return to the Commission at a future meeting with a resolution containing required CEQA findings and project approval.

Mitigation Measures

When an EIR identifies significant environmental impacts that may result from a project, the lead agency must make one or more of the following specific findings: (1) that changes or alterations have been required or incorporated into the project that avoid or substantially lessen the significant environmental impact identified in the EIR; (2) such changes or alterations are within the responsibility and jurisdiction of another public agency that has adopted, or can and should adopt, such changes; or (3) specific economic, social, legal, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR. (CEQA Guidelines Section 15091(a).)

Attachment G (Draft Conditions of Approval October 21, 2015) of the October 21st Commission meeting report also includes the mitigation measures that have been incorporated into the project via the conditions of approval to avoid or substantially reduce potentially significant impacts identified in the EIR (see Attachment G Exhibit A for proposed mitigation measures).

Project Alternatives

If the project will result in significant environmental impacts that will not be avoided or substantially lessened by mitigation measures, the lead agency must consider the environmentally superior alternatives identified in the EIR and find that they are infeasible before approving the project. (CEQA Guidelines Section 15091 (a)(3)).

CEQA does not require that alternatives be assessed in a level of detail equal to that of the proposed project, it may be in less detail than the discussion of the impact of the proposed project; however it should evaluate the comparative merits of the alternatives. Section 4.5 of The Draft EIR (Alternatives to the Project) includes a comparison of potential impacts of the alternatives, including a matrix (Table 4.5-1: Impact Summary of the Proposed Project and Alternatives) summarizing the comparison.

At the Commission's direction, staff developed a "Reduced Production and Reduced Footprint Alternative" (or Hybrid Alternative) for their consideration, as well as further clarify the pros and cons of each alternative including the Hybrid Alternative. See Attachment C (Alternative Analysis July 2015), of

the October 21st Commission meeting report for a more detailed description and evaluation of the project alternatives described below.

Three alternatives were described in the Draft EIR: 1) No Project; 2) Reduced Production; and 3) Reduced Footprint/Conservation.

The Reduced Production Alternative, would reduce proposed annual production from 2 million tons per year to 1.3 million tons per year, was identified as the environmentally superior alternative for CEQA purposes because it would result in the reduction of identified significant unavoidable Greenhouse Gas (GHG) emission impacts to a less than significant level with mitigation incorporated. The Reduced Production Alternative would also reduce the potential emissions of criteria pollutants, toxic air contaminants, and dust associated with the Project primarily due to fewer haul, vehicle, and equipment trips occurring both within the quarry and to and from the site.

Under the Reduced Footprint/Conservation Alternative approximately 35-acres would be removed from the proposed mining footprint. Under this alternative the originally proposed annual production rate of 2 million tons per year would remain, therefore the potential significant unavoidable GHG impact, as well as, potential impacts to air quality, noise, traffic and water use that are associated with the 2 million tons per year production amount would remain the same as with the proposed project. The objective of the Reduced Footprint/Conservation Alternative is to further reduce potential impacts and effects of the proposed project beyond the mitigated project, such as visual/aesthetic changes, biological resources, and cultural resources, whether or not such impacts are required to be mitigated or are considered to be less than significant to conserve and maintain more environmental characteristics of the site.

Under the No Project Alternative, the quarry would continue to operate under its current entitlement that has limited conditions, mitigations, and/or restriction specific to current mining and quarrying operations. Approximately 497 acres of the site would continue to be mined and aggregate processing would continue. Annual production would not have specified limitations. After mining of mineral resources had been completed, reclamation would commence on the entirety of the site per the existing Reclamation Plan. Current practices implemented by the operator such as watering the unpaved roads to control fugitive dust and implementing practices to control polluted and/or increased runoff, are expected to continue. No changes to the existing facilities or the authorized mining footprint would occur.

At the direction of the Planning Commission staff developed the Reduced Production and Reduced Footprint Alternative (or Hybrid Alternative) for the Commission's consideration. The Hybrid Alternative would reduce the annual production level to 1.3 million tons per year and reduce the proposed expansion area by approximately 47-acres (for a total expansion area of approximately 77-acres). This reduction would: i) preserve approximately 30-acres of oak woodlands; ii) preserve all existing Skyline Wilderness Park (SWP) trails for continued public use; iii) increase buffers and setbacks from adjacent properties and uses to reduce the degree of potential visual changes of mining and minimize the effects of noise on adjacent uses by maintain existing visual and acoustical shielding such

as topographic and vegetative features; and iv) ensure the long-term production and supply of aggregate resources.

Commission Consideration/Recommendation

Pursuant to the CEQA Guidelines (Section 15126.6) the Commission can consider and select alternatives to the project which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (unless found to be infeasible).

Therefore, the Commission in its discretion has options when it comes to selecting a project alternative. The Commission as part of CEQA and SMP review may deny the project, approve the project as mitigated, or approve any one of the project alternatives in whole or in part. Furthermore the Commission can utilize components from each of the identified alternatives to define a project that would further reduce identified impacts and/or potential negative effects of the Project to make required CEQA or SMP findings. In short the Commission can select an alternative, combination thereof, or recommend another alternative to the proposed project that attains most of the basic objectives of the project so long as the alternative is capable of avoiding or substantially lessening significant effects of the project.

Staff has recommended that the Commission consider adopting the Reduced Production and Reduced Footprint (Hybrid) Alternative because it further reduces potential negative effects of the project while still meeting the objectives of the project by providing for a reliable long-term source of aggregate and aggregate related materials within the County and surrounding areas. This alternative would also be most consistent with the greatest number of applicable General Plan Goals and Policies.

Statement of Overriding Considerations

When an agency approves a project with significant environmental effects that will not be avoided or substantially reduced, it must adopt a statement that because of the project's overriding benefits, it is approving the project despite its environmental harm. This is what is commonly referred to as a Statement of Overriding Considerations (CEQA Guidelines Section 15043). A Statement of Overriding Consideration would only be necessary in the event that the Commission were to approve a production level of 2 million tons per year.

The EIR identified that the proposed production level of 2 million tons per year would result in a significant unavoidable Greenhouse Gas emission impact, and that production would need to be reduced to 1.3 million tons a year to reduce this significant unavoidable impact to a less than significant level with mitigation incorporated. Because the project has been modified by the applicant (Syar Industries, March 17, 2015) to incorporate an annual production limitation of 1.3 million tons per year the need to adopt a Statement of Overriding Consideration for the project is not necessary.

B. Air Quality and Health Risk

Health and Human Services Participation - Due to concerns that have been raised over potential health effects of the operation, in particular silicosis and other respiratory conditions near the site, the Commission requested staff engage the County Health and Human Services Agency (HHS) to determine

their ability to conduct a health assessment (or epidemiologic study) of the residential community located to the north of the site (i.e. the Imola Avenue, Terrace Shurtleff and River East community residents). In recent communications with HHS (Karen Relucio MD, Deputy Director – Public Health) it has been indicated that to consider a multi-year health assessment, the population in the area of the Quarry would need to be oversampled and compared to other neighborhoods. However, for such an assessment to provide meaningful or relevant results the baseline prevalence of silicosis, asthma, other respiratory diseases prior to the existence of quarry operations would need to be determined, as the surrounding environmental conditions (such as geologic and soil conditions) could already be putting people at risk of silicosis, independent of whether there is mining operations or not. Because there is no existing data characterizing health conditions prior to quarry operations occurring in the area to compare existing and proposed conditions it would be difficult for an epidemiologic study to predict or otherwise determine the health effects of expanded operations. Also see the discussion under the Air Quality and Health Risk Impact Assessment section below for a more detailed discussion of epidemiologic studies and health risk assessments.

Due to the extensive amount of time, resources, and cost that would be necessary to conduct an epidemiologic study, and that such a study may be beyond the capacity of a local health department to adequately conduct and may not yield meaningful results an epidemiologic study, HHS has recommended consulting with the Bay Area Air Quality Management District (BAAQMD or District) regarding air quality issues.

BAAQMD - In ongoing communications with the BAAQMD they have reviewed potential Toxic Air Contaminants (TACs) of the current inventory of stationary sources for the operation and site and determined the emission rate for each TAC is less than the District's health risk screen trigger levels. Additionally, at the present time the District has determined that the area around Syar Napa Quarry does not fit well with the criteria for an impacted community or area of focus for their Community Air Risk Evaluation (CARE) program. The CARE programs primary goals are to identify areas of concentrated air pollution, where air pollution contributes most to health impacts and where populations are most vulnerable to air pollution, and apply methods and strategies to reduce health impacts linked to local air quality in these areas. Generally communities that are candidates for the CARE program are areas that are impacted with multiple pollution sources of fine particulates and toxic air contaminants (such as freeways, busy distribution centers, and large industrial facilities) and with high rates of mortality and illness linked to air pollution.

Furthermore, in a meeting with county staff and District inspectors (October 7, 2015), no specific violations of air quality standards or of Syar's BAAQMD operating permit have been identified. This meeting also included observation of the Quarry from several off-site locations to observe and assess potential dust emissions and operational practices with respect to dust control. County staff will continue to work with District inspectors to improve Quarry oversight, identify violations, and reduce Quarry emissions. District inspectors identified that general housekeeping practices at the Quarry and controlling speeds on unpaved roads would reduce dust emissions. Proposed conditions of approval have been modified to include such practices: see condition #2M.

Air Quality and Health Risk Impact Assessment - The primary difference between an Air Quality Impact Assessment and a Health Risk Impact Assessment (HRA) is that an Air Quality Assessment looks at Criteria Air Pollutants and the Health Risk Assessment looks at Toxic Air Contaminants (TAC). According to the BAAQMD Criteria Air Pollutants (or pollutants of concern) consist of: Ozone, fine particulate matter (PM₁₀ or PM_{2.5}), Nitrogen Dioxide, Carbon Monoxide, Sulfur Dioxide and Lead, whereas TACs are a group of pollutants that can result in health effects that can be severe: many TACs are confirmed or suspected carcinogens or can cause birth defects or neurological damage.

HRAs do not identify whether a current health problem or symptom was caused by exposure to a chemical: epidemiologic studies are conducted to determine links between chemical exposures and health problems in a community. These studies typically include a survey of health problems in a community and a comparison of health problems in that community with those in other cities, communities, or the population as a whole. HRAs and epidemiologic studies have different objectives, most epidemiologic studies evaluate whether past chemical exposures may be responsible for documented health problems in a specific group of people. In contrast, HRAs are used to estimate whether current or future chemical exposures will pose health risks to a broad population, such as a city or a community. Scientific methods used in health risk assessment cannot be used to link individual illnesses to past chemical exposures, nor can health risk assessments and epidemiologic studies prove that a specific toxic substance caused an individual's illness (A Guide to Health Risk Assessment, California Environmental Protection Agency, Office of Environmental Health Hazard Assessment).

Also see Section J (Responses to Comments: Summary of Responses in Appendix C to the Final EIR) of this document and Attachment B (Appendix C to the Final EIR, Responses to August 2015 comments, October 2015) of the October 21, 2015 Commission staff report for more details regarding this subject matter.

C. Lake Herman Quarry

The Commission requested that staff review the recent approval of Syar's Lake Herman Quarry (LHQ) located in Solano County with respect to air quality mitigation and monitoring requirements and compare them with consistency to the proposed measures identified for the Napa Quarry. See Attachment H

(Solano County Planning Commission Resolution No. 4613 – Approving Use Permit U-08-09 and Reclamation Plan RP-08-01 for the Lake Herman Quarry Expansion Project) of the October 21st Commission staff report for the entirety of the conditions of approval and mitigation measures that Syar's Lake Herman Quarry is subject to.

The following two mitigation measures are specific to Air Quality and the only ones the LHQ facility is subject to:

1. *Mitigation Measure AQ-2a: Basic Measures for Construction. The applicant shall implement the following measures during construction of the Sulphur Springs Creek Bridge and Lake Herman Road improvements:*
 - a) *All exposed surfaces (staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at least two times per construction day.*
 - b) *All haul trucks transporting soil, sand, or other loose material off-site shall be covered.*

- c) *All visible mud or dirt tract-out onto Lake Herman Road shall be removed using wet power vacuum street sweepers at least once per construction day.*
 - d) *All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.*
 - e) *Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes. Clear signage shall be provided for construction workers at all access points.*
 - f) *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 proper condition, at least once per year, prior to operation.*
2. *Mitigation Measure AQ-2b Fugitive Dust Reduction during Operation. The applicant shall implement the following:*
- a) *All exposed surfaces (unpaved roadways, extraction, and overburden areas) actively used shall be watered a minimum of two times per day.*
 - b) *A water spray system shall be used in the rock processing plant.*
 - c) *A water spray bar shall be used to moisten loose materials on loaded trucks prior to leaving the site. For soild material, either a 2-foot freeboard shall be maintained or the material shall be covered.*
 - d) *All visible mud or dirt track-out onto Lake Herman Road at the Quarry entrances shall be removed using wet power vacuum street sweepers at least once per day, seven days per week, excluding days the quarry is closed.*
 - e) *All vehicle speeds on unpaved road shall be limited to 15 mph.*
 - f) *Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air Districts phone number shall also be visible to ensure compliance.*

Generally, within the LHQ EIR it was concluded that because quarry operations would generate fugitive dust similar to a large-scale construction project (excavation involving earthmoving equipment, loaders, etc) the project's air quality impacts would be considered significant unless Basic Construction Mitigation Measures identified in Table 8-1 (Basic Construction Mitigation Measures) of the BAAQMD CEQA Guidelines are incorporated into the project. Therefore, the impact of fugitive dust from construction activities and quarry operations on air quality would be potentially significant, and implementation of the BAAQMD construction mitigation measures for dust control (as adjusted to the specifics of LHQ project) would reduce the potential impacts to a less than significant level. Of note the AQ-2a is specific to the construction of a bridge required for the LHQ project. The proposed conditions for Syar's Napa Quarry include all the Basic Construction Mitigation Measures identified in the BAAQMD Guidelines (as adjusted specific to this project) as well as specific Mitigation measures to Reduce NOx, Fugitive Dust, and Health Risks associated the project, which are much stricter than those placed on LHQ.

Furthermore, in reviewing the LHQ EIR and supporting studies, only an Air Quality Impact Assessment was prepared, whereas Napa County required that an Air Quality and Health Risk Impact Assessment (including a dust sampling component) be prepared to fully understand potential impacts of the Napa quarry operation and expansion.

Proposed Air Quality Mitigation Measures and Conditions for Napa Quarry – the following mitigation measures and conditions associated with air quality are proposed for the Napa Quarry. Furthermore, to ensure the measures presented in the August 12th Commission Staff Report (as clarified at the direction of the Commission), are consistent with the analysis and recommendations within the Draft EIR and provided the restrictions and controls necessary to reduce potential air quality impacts to a less than significant level, staff requested that the County’s air quality consultant (SESPE Consulting, Inc.) review the revised air quality and health risk measures. The further clarified measures based on SESPE’s subsequent review are presented below, and in Attachment G of the October 21st Commission report.

Mitigation Measure 4.3-2a, NO_x Reduction: 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 the NO_x emissions increase above baseline was less than 10 tons per year.

Activity levels of offroad vehicle engines, which contribute a majority of Project NO_x emissions, shall be logged to document operational NO_x 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 six 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 NO_x emissions increase to less than 10 tons per year above baseline.

1. Operating cleaner offroad vehicle engines as conditioned below:
 - a) Baseline conditions are established at 810,363 tons with a fleet mix of 39% Tier 0, 49% Tier 1, 10% Tier 2 and 2% Tier 3.
 - b) Production up to 945,000 tons per year shall be allowed upon continued demonstration that 12% 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% 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% of horsepower-hours are Tier 3 or better and 72% of the horsepower-hours are Tier 2 or better.

Consistency with Condition 1.a through 1.d above demonstrates that NO_x emissions are consistent with those calculated in the EIR and have increased by an amount less than 10 tons per year.

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

3. Reduce on- and/or off-site emissions by some other approved means. On-site 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. Off-site 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 NO_x emissions from offroad vehicle engines. Project NO_x 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 NO_x 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 Condition of Approval #2L, 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 two months as determined based on the percentages and tier of offroad vehicle engines in use during the three 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 that the mitigation options chosen have been implemented and increased production levels will result in NO_x emission 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.

Mitigation Measure 4.3-2b: Reduce Fugitive Dust (PM₁₀ 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 PM₁₀ and PM_{2.5} emissions have not increased above baseline levels. If the County finds that PM₁₀ 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 PM₁₀ and/or PM_{2.5} emissions to less than baseline level within two 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 PM₁₀ and PM_{2.5} emissions above baseline levels. The Permittee shall reduce PM₁₀ and PM_{2.5} through compliance with Items 1 through 4, and one or more of the methods listed in 5 and 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 two-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 an 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 not violate State Water Quality Control Board standards. Materials accepted by the California Air Resources Board and the US EPA, and which meet State water quality standards shall be considered acceptable.
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). The Emissions Calculations report shall be submitted to the County for review in the Annual Compliance Report required by Condition of Approval #2L, 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.

Mitigation Measure 4.3-3, Health Risk Reduction: The Permittee shall implement the following mitigations to reduce health risk at sensitive receptors:

1. Using the Log described in 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% 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%) and at least 12% 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%) and at least 44% 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%) and at least 12% 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%) and at least 56% 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% of horsepower-hours operated are Tier 3 or better and 72% of horsepower-hours operated are Tier 2 or better as described in Mitigation Measure 4.3-2a, Option 1.c.
2. Reduce on-site 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 measure shall be demonstrated to the County by submittal of the Horsepower-Hour Log described in 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

Condition of Approval #2M: 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 as necessary to minimize particulate (dust) emissions.
2. Ensure that all trucks hauling soil, sand and other loose materials from the site shall be covered in accordance with Section 23114 of the California Vehicle Code or maintain at least two feet of freeboard.
3. 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.
4. Traffic on unpaved areas and roads shall be limited to 15 mph.
5. Grading and earthmoving activities shall be suspended when two-minute average wind speed exceeds 20 mph.
6. 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 California Code of Regulations (CCR). Signs clearly indicating this provision shall be installed at all access points or appropriate facility locations.

7. 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.
8. A sign with the telephone numbers and persons to contact at Napa County and the Bay Area Air Quality Management District regarding dust complaints shall be visibly posted at the site. This sign shall be posted within 30 days of the approval of this Permit.

Also see Section J (Responses to Comments: Summary of Responses in Appendix C to the Final EIR) of this document and Attachment B (Appendix C to the Final EIR, Responses to August 2015 comments, October 2015) of the October 21, 2015 Commission staff report for more details regarding this subject matter.

D. Financial Assurance Cost Estimate (FACE) and Review Process

Pursuant to Public Resources Code Section 2773.1 and NCC Section 16.12.400 Napa County is required to maintain adequate financial assurances for the surface mining operation to ensure that reclamation is performed in accordance with the approved reclamation plan. Pursuant to PRC 2773.1(a)(3), CCR Title 14 Section 3804(c), and NCC Section 16.12.415 the FACE must be recalculated annually to account for: total acreage of new mined/disturbed lands, plus what is anticipated to be disturbed in the next year; annual inflation; and, any lands reclaimed. It is the lead agencies responsibility as part of required annual inspections (NCC 16.12.500 and CCR 3504.5) to review and approve financial assurance.

When an updated FACE is submitted for preliminary approval, the lead agency reviews it to ensure that it reflects the approved reclamation plan, including any applicable mitigation and conditions of approval. When the lead agency has determined the updated FACE is adequate it is submitted to the Office of Mine Reclamation (OMR) for review and concurrence: the package sent to OMR for FACE concurrence includes the annual inspection report and cover letter indicating the FACE is adequate. Through OMR's review should they not concur on the updated FACE they will provide comments as to why it is not adequate. Prior to approval of the FACE the lead agency must prepare written responses to OMR's comments describing the disposition of the issues raised and rational for any issues raised by OMR's review were not accepted.

Furthermore, it should be noted that pursuant to NCC Section 12.12.060 the owner and operator (including successors-in-interest) of the mining operation are financially liable for reclamation of the site as described below.

16.12.060 Ownership of permits and responsibility for reclamation.

- B. The mine operator, the owner(s) of the property effected, and their respective successors-in-interest shall be jointly and severally liable for compliance with all conditions of the permit(s) issued and reclamation of the mining property in conformance with the most current master mining plan approved. The mine operator and the property owner(s) shall at the time of surface mining permit submission submit signed statements formally accepting said liability. Thereafter, prior to the sale or transfer of the operation/property, the new mine operator/property owner(s) shall file with the county a signed statement formally accepting liability for all reclamation remaining to be done. (Ord. 1150 § 2 (part), 1998)

E. Enforcement

Enforcement of the provisions of the Surface Mining Permit, ongoing Quarry Operations and activities, and site reclamation is primarily governed by Article VI (Enforcement) of Napa County Code Chapter 16.12 (Surface Mining and Reclamation). This section of the code spells out the procedural requirements and penalties specific to noncompliance and or/violation of an approved SMP, County code, or the Surface Mining and Reclamation Act (SMARA). The entirety of Article VI is provided below.

NCC Chapter 16.12, Article VI. Enforcement

16.12.600 Enforcement agent.

The planning director, his designee, or such other person(s) as may hereafter be designated by the board of supervisors shall enforce the provisions of this chapter. (Ord. 1150 § 2 (part), 1998)

16.12.610 Noncompliance-Notice.

- A. If, after conducting the inspections required by Section 16.12.500, other inspections as may be undertaken, or upon the receipt of a verified complaint by any interested person, the planning director finds that the mining operation is not in substantial compliance with this chapter, the exploration or surface mining permit issued, or the master mining plan, the operator and owner shall each be sent an initial notice of noncompliance, and given thirty days to substantially comply.
- B. The permittee may appeal this determination to the board of supervisors in accordance with Chapter 2.88 of the county code. The time for compliance shall be tolled until a decision is rendered on the appeal or the appeal is withdrawn. If the determination is not appealed or the appeal is filed but withdrawn, the decision of the planning director shall be final.
- C. If at the end of this initial thirty-day period compliance has not been achieved, the planning director shall issue a final notice of noncompliance to the mining operator and owner by certified mail or personal service that a violation exists and that the mining permit may, after hearing, be suspended or revoked, and that all mining operations may be ordered to cease. (Ord. 1201 § 5, 2002; Ord. 1150 § 2 (part), 1998)

16.12.620 Noncompliance--Permit suspension or revocation.

- A. Upon issuance of a final notice of non-compliance, the planning director shall set the matter for public hearing before the planning commission in accordance with the procedures set out in Section 16.12.370 of this chapter.
- B. At the hearing, the planning commission shall determine whether or not the mining operator or owner has substantially complied with this chapter, the permit issued, and the master mining plan. If it is found that the operator or owner is not in substantial compliance, the commission shall determine if the permit should be re-voked or, alternatively, suspended until the operator files an amended master mining plan with the planning director or otherwise complies with the requirements of this chapter and the permit issued. The decision of the planning commission in this matter may be appealed to the board of supervisors.
- C. No amended master mining plan prepared pursuant to this section shall be acceptable unless it is so structured that the goals of the original master mining plan will be met within a

reasonable period of time.

- D. An amended master mining plan prepared pursuant to this section shall not be accepted by the planning director unless it is accompanied by one of the forms of security permitted under Section 16.12.435. This security shall not be released or reduced until the amended master mining plan has been satisfactorily completed, nor may it be limited to the current phase of reclamation, even though the original permit authorized bonding in phases.
- E. The remedies described in this section are in addition to any other remedies, civil or criminal. (Ord. I150 § 2 (part), 1998)

16.12.630 Noncompliance--Other penalties.

- A. The planning commission may at the conclusion of the hearing required under Section 16.12.620(A) direct the planning director to issue an order by personal service or certified mail to comply or cease all mining activities. The order shall specify the violations, and a reasonable time for compliance.
- B. Any operator or owner who violates or fails to comply with an order issued pursuant to subsection (A) of this section, fails to provide updated reclamation cost estimates as required under Section 16.12.415, or fails to submit reports in accordance with Section 16.12.710, shall be subject to an administrative penalty of up to five thousand dollars per day from the original date of noncompliance. Notice of such a penalty shall be given personally or by certified mail to the operator and owner. Payment shall be made to the county within thirty days unless the operator or owner petitions for review pursuant to the procedures described in Section 16.12.640
- C. If noncompliance presents an imminent and substantial danger to public health or the environment, the planning director may seek without a hearing before the planning commission or board of supervisors an order from a court enjoining the operation.
- D. The county shall have primary responsibility for enforcement of the provisions of this section.
- E. The remedies described in this section are in addition to any other remedies, civil or criminal. (Ord. 1 150 § 2 (part), 1998)

16.12.640 Review of orders.

- A. Within thirty days after the planning director issues an order imposing administrative penalties, the operator or owner may petition the board of supervisors for review.
- B. If the operator or owner does not petition the board of supervisors for review in a timely manner, the order shall not be reviewable by any court or agency.
- C. The board of supervisors shall notify the operator and owner by personal service or certified mail whether it will review the order and the date and time of any review scheduled.
- D. The record on review, if any, shall consist of the record before the county and any other relevant evidence that the board of supervisors determines should be considered.
- E. The board of supervisors may affirm, modify, or set aside, in whole or in part, any order of the planning director imposing administrative penalties. Any such decision shall be effective on issuance and payment shall be due within thirty days.
- F. An operator or owner may obtain review of a decision of the board of supervisors by filing a petition for administrative mandate pursuant to Section 1094.5 of the Code of Civil

Procedure within thirty days following the date of the notice of the decision. If the operator or owner does not petition for such a writ in a timely manner, the decision of the board of supervisors shall not be subject to review by any court or agency. (Ord. 1150 §2 (part), 1998)

16.12.650 Violation-Public nuisance.

- A. The board of supervisors hereby declares that violation of the conditions regulating the operation and reclamation of mined lands within the county is a public nuisance in that compliance with such operating and reclamation conditions is necessary to prevent substantial harm to the environment and to protect the health, safety, and general welfare of the community.
- B. Any person violating any term or condition of an approved master mining plan after receipt of a final notice of noncompliance pursuant to Section 16.12.61 O(C) shall be guilty of conducting a public nuisance, and shall be guilty of a separate offense for each and every day such nuisance is maintained. (Ord. 1150 § 2 (part), 1998)

16.12.660 Violation-Penalty.

- A. Any person who operates, maintains or causes to be operated or maintained any surface mining operation which is not in conformance with the provisions of this chapter, the exploration or surface mining permit issued, or any requirement, term or condition of a master mining plan approved for the site being mined is guilty of a misdemeanor.
- B. Each person violating or contributing in any way to the violation of any of the provisions of this chapter shall be deemed guilty of a separate offense for each day during which such violation continues, and such violation shall be deemed to be a misdemeanor and shall be punishable therefore as provided below.
- C. Any person convicted of a misdemeanor under the provisions of this section shall be punished by a fine not exceeding one thousand dollars, imprisonment in the county jail not exceeding six months, or by both. (Ord. 1150 § 2 (part), 1998)

F. Recycled water

Groundwater is used at the Napa Quarry for several purposes including dust suppression, material washing and minor utility uses at the site (i.e. restrooms). In conversations with the Napa Sanitation District (NSD), NSD has indicated that recycled water is available to Syar and that Syar could acquire recycled water to support the facility through the following methods: 1) As a Standard User, however, the availability of water to Standard Users is limited to "Winter Water" (i.e. water available for acquisition from November 1 through April 30); and 2) through connection to the MST Community Facilities District (CFD), which also includes "Summer" water availability, however, CFD connection requires payment into an assessment district in addition to the cost of the water. Availability of water may change in the future as new users sign up. A recycled water pipeline and sub-out exists approximately 0.5 miles to the west/southwest of the quarry entrance in the proximity of the Napa River and the Benson Kaiser property (APN 046-370-003), this pipeline and stub-out is located on lands owned by Syar Incorporated and can be accessed to provide recycled water to the site and operation. It is the County's understanding that Syar has preliminarily discussed the acquisition and use of recycled water with the NSD in the past; however, they have not initiated formal discussions with the NSD to connect

and utilize recycled water at the facility. More information about the program can be found at <http://www.napasan.com/Default.aspx?pageid=31>.

Because the Quarry's water supply well is located within Milliken-Sarco-Tulucay (or MST) groundwater deficient area, mitigation (Mitigation Measure 4.8-4) as well as conditions of approval (#2D) have been proposed to limit (or cap) annual groundwater use to the baseline conditions of 140.6 acre-feet per year. In other words groundwater use will be mitigated and conditioned such that there will be no net increase in water use as a result of the project and from ongoing quarry operations. Additionally, this capped groundwater use is consistent with the Napa County Department of Public Works' practice of requiring no net increase in groundwater use in the MST when new or expanded water uses are being considered. Both the mitigation measure and condition of approval include a monitoring program to ensure that the amount of annual groundwater use under this permit is not exceeded. Any water needed above the annual 140.6 acre-foot limit would need to come from other sources or through on-site water conservation. Any other proposed water source would need to be reviewed pursuant to CEQA and county policy and code prior to its installation and use. The proposed Groundwater Supply and Use condition of approval is included below for reference.

Condition #2D - Groundwater Supply and Use:

Groundwater use 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 annually 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 as prescribed pursuant to Condition of Approval #2L (below) and as necessary to demonstrate compliance.

Specifically the Permittee shall implement the following monitoring, data collection, and reporting measures within 3 months of approval 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 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. Monitor precipitation onsite or compile precipitation data records from the nearest publically available source.
4. 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 af/yr.
5. 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 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 demand reduction measures, in which water usage can be reduced to stabilize groundwater levels. The Permittee shall implement recommended demand reduction measures such that groundwater levels show stable conditions on a multi-year basis: all recommendations shall be immediately implemented to the satisfaction of the PBES Director.

No new on-site or off-site wells for quarry operations or portions thereof, including but not limited to the installation of new groundwater wells, the use of surface water, or imported water shall be permitted without additional environmental review and modification of this Permit. Recycled water obtained from the Napa County Sanitation District shall not be subject to this condition

Also see Section J (Responses to Comments: Summary of Responses in Appendix C to the Final EIR) of this document and Attachment B (Appendix C to the Final EIR, Responses to August 2015 comments, October 2015) of the October 21, 2015 Commission staff report for more details regarding this subject matter.

G. Permit Terms

Time Limit - Typically use permits authorized in the County do not specify a term or end date, these land use entitlements run with land and terminate when the authorized use is ceased, abandoned, or revoked. With regard to Surface Mining Permits, pursuant to NCC Sections 16.12.321(H) and PRC Section 2772(c)(3), the Mining and Reclamation Plan needs to identify the estimated life of the operation and the termination of the surface mining operations. Syar has requested a 35 year term. Should the extent of mining authorized under an SMP be completed prior to the term specified then reclamation would need to be commenced and completed unless a subsequent permit is authorized. Alternatively, should the extent of mining authorized under a SMP not be accomplished within the term specified then reclamation would need to be commenced and completed unless a subsequent permit is authorized.

Commission Consideration/Recommendation

The Commission may modify components of the MRP to include provisions in the SMP to minimize the effects of the proposed project, make CEQA findings, or make SMP Findings. With respect to the permit terms, SMP Finding 16.12.360(F) states that, *The mining operation and reclamation plans, as approved, are*

consistent with the objectives, policies and general land uses and programs set forth in the general plan ...". General Plan Conservation Goal CON-7 and Policy CON-37 in part encourage the conservation of areas containing significant mineral deposits for future use and promote the reasonable safe and orderly operation of mining and extraction activities to ensure the long-term production and supply of aggregate resources. As such, the Commission has latitude when considering SMP permit terms and at their discretion can shorten the term to ensure the conservation of the aggregate resource. However, shortening the term may encourage unnecessary increased annual extraction: a longer term does provide some flexibility to react to varying market conditions over time rather than extracting the maximum amount allowable under a shorter permit term. Staff is supportive of the 35 year term.

Furthermore, the Commission may also increase the frequency that the permit is reviewed by them as specified in proposed Condition of Approval #1F. Should the Commission feel that to adequately assess the operations compliance with permit provisions, conditions and mitigation measures they could have it come back to them yearly for the first five years and every five years thereafter.

Annual Aggregate Need - It has been stated by commenter's that the Draft EIR uses a quantity of 8.9¹ tons per person per year to determine need (or demand) of aggregate to justify the proposed project. Nowhere in the Draft EIR is this assumption made or utilized to justify the proposed production limit. The Draft EIR analyzed the applicant's proposed project that included a production rate of up to 2 million tons per year. The Draft EIR also analyzed a reduced production alternative at a rate of 1.3 million tons per year to address potentially significant unavoidable impacts. Commenter's have also suggested that without knowing Napa County's usage the EIR cannot adequately assess potential impacts, however as previously stated the EIR analyzes the proposed production limit and reduced production limit alternative. Furthermore, the County has adequately analyzed the potential effects of the proposed project in Draft EIR through its several studies and responses to comments.

Furthermore, the County is not aware of any requirements of CEQA, precedents, or case law requiring that an EIR include a demonstration of need to adequately disclose and assess impacts of a proposed project. This would be akin to requiring winery use permit applications demonstrate the need for more wine, or vineyard development applications demonstrate the need for more grapes, or a use permit application in the airport industrial are to demonstrate a need for more commercial space to understand potential impacts.

With respect to the local need that is supplied by Napa Quarry, as described in the August 12, 2015 Staff Report review of sales records, a portion of which were supplied by Syar, for the past three years (2012 through 2014) showed approximately 78% of the materials sold from the Quarry in the last 3 years are used in Napa County. Specifically: in 2014, 87% of the materials sold was used in Napa County, 3% was used in Solano County, 5% was used in Sonoma County, and 5% was used in other counties; in 2013, 80% of the materials sold was used in Napa County, 4% was used in Solano County, 12% was used in Sonoma County and 4% was used in other counties; and in 2012, 68% of the materials sold was used in Napa County, 16% was used in Solano County, 13% was used in Sonoma County, and 3% was used in other counties.

¹ *Special Report 205, Update of Mineral Land Classification: Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin, and Southwestern Solano Counties, California, California Geological Survey, 2013*

Commission Consideration/Recommendation

The Commission has latitude when considering SMP permit terms including allowed annual production levels, and at their discretion can specify reduced production levels within the SMP to ensure the reasonable safe and orderly operation of mining and extraction activities to ensure the long-term production and supply of aggregate resources in context of SMP Finding 16.12.360(F) (*The mining operation and reclamation plans, as approved, are consistent with the objectives, policies and general land uses and programs set forth in the general plan ...*”).

While it has been demonstrated that an annual production level of 1.3 million tons per year, with mitigation incorporated, would not result in significant environmental impacts in the Draft EIR, the Commission could consider a lower annual production level in the SMP. In considering the proposed annual production rate of 1.3 million tons per year in context of the managed production resources and associated General Plan goals and policies, should the Commission determine this rate is excessive, it may reduce the annual production rate of the SMP to ensure a local, reliable, and consistent source of aggregate that is conserved for future use, and/or to promote the reasonable, safe and orderly operation of mining activities. This determination can be based on the baseline annual production amount of 810,364 tons as it represents a five year average of Quarry sales, which can be considered an appropriate representation of the historic and future annual demand from the Quarry and needs of the County.

H. Annual Compliance and Assurance Update Report (Proposed Condition #2L)

The Commission commented that the annual compliance and assurance update report required under proposed condition of approval #2L may provide a higher comfort level to local residents if it was prepared by a third party rather than Syar. This condition requires Syar to submit to the County, as part of their annual reporting requirements pursuant to NCC Section 16.12.500 and PRC Section 2774, documentation that demonstrates: compliance with all of the conditions of approval and mitigation measures for this Permit; the operation has maintained an adequate financial assurance mechanism; the operation is in compliance with Napa County’s Stormwater Management and Discharge Program; that the Storm Water Pollution Prevention Plan (SWPPP – WDID #228I005111) under which the facility operates is up to date and is in compliance with National Pollutant Discharge Elimination System (NPDES) requirements; that mining 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; and, that the operation 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.

While this annual compliance report is not proposed to be prepared in its entirety by a third party there several mitigation measures that may require the involvement of a third party qualified professional. Mitigation Measures 4.3-2a (NOx Reduction), 4.3-2b (Fugitive Dust Reduction), 4.6-2a (Supplemental Geotechnical Design Criteria), 4.6-2b (Slope Stability Criteria), 4.11-1 (Noise Restrictions), and 4.11-2 (Blasting Vibration Reduction Measures), include provisions that a consultant may be necessary to assess and determine compliance. Mitigation Measures 4.4-1a (Holly-leaf ceanothus impact reduction) and 4.4-1b (Special-status plant protection), required a qualified biologist to conduct necessary pre-construction

surveys to expand mining into undisturbed areas and to monitoring any required replacement plantings on an annual basis (or as necessary) to demonstrate compliance. Mitigation Measures 4.4-2 (American Badger protection), 4.4-3 (Special-status bird species protection), and 4.4-5 (Special-status bat species protection), required a qualified biologist to conduct necessary pre-construction surveys on an annual basis (or as necessary) to expand mining into undisturbed areas. Mitigation Measures 4.6-2a (Supplemental Geotechnical Design Criteria) and 4.6-2b (Slope Stability Criteria) requires the permittee to retain a licensed geotechnical engineer to prepare or conduct inspections required by these measures.

The Office of Mine Reclamation provides review of annual FACE updates. Additionally, the County Engineering Division and Environmental Health Divisions can provide review support of the facilities Napa County's Stormwater Management and Discharge Program and Storm Water Pollution Prevention Plan.

Commission Consideration/Recommendation

Given that several of the proposed mitigation measures include involvement of third party qualified professionals or the ability for the County to request consultant assistance to assess and determine compliance, staff is not recommending that the Annual Compliance Report required pursuant to Condition #2L be prepared by a third party professional. Should the Commission determine that third party involvement is necessary for any of the identified mitigation measures to adequately assess, determine, and verify compliance, the Commission should identify which measures need third party involvement and the duration that is necessary. Staff will then craft appropriate conditions to accomplish this.

I. General Plan and Zoning Designations

See Attachment E (General Plan and Zoning Consistency Memo, July 2015) of the October 21, 2015 Commission meeting report for a detailed discussion and analysis.

J. Responses to Comments: Summary of Responses in Appendix C to the Final EIR

Since release of Appendix B to the Final EIR (*Master Responses to Comments Received after Publication of November 2014 Final EIR and Proposed Modifications, June 2015*) to the Final EIR (November 2014), the County has again received additional comments on the EIR. In the continuing effort to address concerns and comments on the EIR and Project, the County has prepared additional responses to comments received, that focus on the Stop Syar Expansion comment package received on August 11, 2015 as they relate to Air Quality and Greenhouse Gases (GHG), Groundwater Hydrology, Noise and Vibration, and Transportation: see Appendix C to the Final EIR, Responses to August 2015 comments, (October 2015) included in this Commission Staff report as Attachment B. Please note the Attachments to Appendix C are only available on-line at (<http://www.countyofnapa.org/Syar/>), from the project file located at the County Administrative Offices, or on disk.

Attachment B of this report includes additional responses to comments received by Stop Syar Expansion on the Draft and Final EIRs received August 11, 2015 (including an additional comment memo received on September 1, 2015, from Dale La Forest & Associates as an agent of SSE to supplement their August 11th comment package). Please note the SSE comments referenced herein are not included in Attachment B, but can be accessed from the County files for the Project at the County's Current PBES Projects

webpage at (<http://www.countyofnapa.org/Syar/>). Furthermore, comments and correspondence received from February through September 2015 may also be accessed from the County's Current PBES Projects webpage for the Syar project.

Air Quality And Greenhouse Gas Emissions – The Air Quality and Health Risk Assessment (AQ/HRA) prepared for Draft EIR includes emissions calculations for air quality and health risk impacts resulting from the ongoing operations associated with the proposed project. The Assessment was prepared in accordance with the Bay Area Air Quality Management District (BAAQMD) Air Toxics Program Health Risk Screening Analysis Guidelines, and the Office of Environmental Health Hazard Assessment Air Toxics Hot Spots Program Guidance Manual, and Air Toxics Hot Spots Program Risk Assessment Guidelines, and includes an evaluation of cancer and non-cancer impacts of the proposed project based on a production level of 2 million tons per year.

In short all assumptions utilized in the AQ/HRA for the project and Draft EIR are appropriate, valid and based on professional opinions, and in most cases conservatively over estimate potential air quality emissions and impacts associated with the project.

With respect to particulate matter (PM) the BAAQMD method for assessing PM_{2.5} includes only particulates from diesel engines and excludes road dust, which is the primary source of dust for the project. The cumulative health risk from PM_{2.5} and other air pollutants was determined through the HRA which considered the constituents in PM_{2.5} from the Project rather than assuming all constituents represent the same level of health risk. The HRA is a more precise method than the BAAQMD PM_{2.5} assessment method and is the preferred method for evaluating health risk effects from the project.

Regarding Greenhouse Gas (GHG) Emissions, as assessed in the Draft EIR the 1.3 million ton per year production limit with incorporation of Mitigation Measure 4.17-2 would result in less than significant GHG impacts. Proposed mitigation would limit Project GHG emissions to no more than 1,100 MTCO_{2e} per year.

Commission Consideration/Recommendation

While potential air quality and health risk impacts are identified to be less than significant with implementation of the reduced annual production level of 1.3 million tons per year and identified mitigation. The Commission may, in order to ensure adverse effect of surface mining operations will be minimized ((NCC 16.12.020(A)(2)) increase the level of air quality and health risk restrictions to achieve such a purpose/objective. Mitigation measures 4.3-2a and 4.3-3 include tiered implementation of air quality control measures based on production levels: these measures are triggered when production exceeds the baseline production amount of 810,000 tons per year. Should the Commission determine current and on-going operations require heightened levels of air pollution controls, regardless of annual production levels is warranted to ensure adverse effect of surface mining operations will be minimized to provide adequate protections to health safety and welfare of the surrounding community and the county, they can require that the quarry fleet engines be upgraded within certain timeframe rather than on production levels. As an example the SMP can be conditioned to require that the primary pieces of mining equipment be updated to Tier 2 requirements within 12 months of approval of the SMP (should

the SMP be approved) or operations will need to be suspended until that occurs. This would be in addition to the Horsepower-hours Logs required under these measures.

Groundwater Hydrology - As previously indicated in the August 12, 2015 staff report, SB 610 and SB 221 are companion measures that are specific to municipal water supplies: the quarry is neither connected to a municipal water supply source, nor is it proposing to utilize a municipal water supply source. Therefore, regardless of whether or not it is defined as a project under SB 610 and SB 221, because the project will not rely on a municipal source the water supply assessment provisions of SB 610 and SB 221 do not apply.

The Draft EIR estimates baseline water use conditions based on available data utilizing a combination metered flows, water truck counts and pump operation records, which resulted in an estimated 140.6 acre-feet of water per year for the baseline condition. Because the project well is located in the Lower Milliken-Sacco-Tulucay (MST) groundwater deficient aquifer, mitigation measures and conditions of approval have been incorporated that limit annual groundwater use at 140.6 acre-feet per year to minimize impacts on groundwater. The proposed condition includes a monitoring and reporting requirement: see Section F of this document for the entirety of the condition. This limitation will encourage the permittee to conserve water, incorporate water savings techniques and practices in its operation, and or see other sources other than groundwater to meet water needs associated with increased production.

Furthermore, comments received on this topic do not introduce any new or additional evidence that demonstrates the potential level of impact associated with the proposed water supply and use, as mitigated and conditioned, would occur beyond what was identified in the Draft and Final EIRs.

Based on review of comments received and the June 2015 Master Response document (Appendix B to the Final EIR, June 2015), staff and the County's consultant continue to assert that no new potentially significant impacts beyond those identified in the EIR would occur, no new or additional mitigation measures must be added to reduce impacts, and that no new information has been submitted which warrants recirculation or preparation of further technical studies, and none of the grounds for recirculation of the EIR are met.

Noise and Vibration - Noise and vibration measurements conducted by Illingworth & Rodkin Inc. (I&R), were taken at several locations both within the quarry and at surrounding locations to record off-site and on-site levels of noise produced by quarrying activities and vibrations generated by blasting. Noise measurements were taken within the quarry itself to document noise levels resulting from stationary and mobile equipment operating within the quarry. The data collected in 2009, which was presented in the Draft EIR Figures 4.11-2 through 4.11-33, continue to represent existing noise conditions in the project area because operations at Syar Quarry and other noise sources in the area have not changed substantially since that time. Therefore, credible evidence is presented in the Draft EIR to support the conclusions made with respect to baseline conditions and impact analysis.

Furthermore, the calculated noise levels presented in the Draft EIR assumed hemispherical spreading noise losses over a hard ground plane and excess attenuation due to atmospheric absorption; therefore,

the calculations represent a credible worst-case scenario because they do not account for intervening terrain that would reduce noise levels as mining progresses downward to quarry floors.

As presented in the August 12, 2015 staff report and proposed mitigation measures, Mitigation Measure 4.11-1 was revised as follows to clarify and refine the measure so that it would adequately address potential noise impacts.

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 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 norther 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 five years of the Permit; thereafter the Planning Commission shall determine the extent of ongoing noise monitoring as part of their Project and Permit review required by Condition of Approval #1F. Noise monitoring reports shall be submitted monthly to the County Environmental Health and Engineering and Conservation Divisions, or upon request, to verify compliance. If and as necessary the County will either hire a consultant (at the Permittee's expense) to assess compliance or provide 3rd party independent noise monitoring of the Project.
 - d) Noise monitoring results shall also be submitted to the County in the Annual Compliance Report required by Condition of Approval #2L, 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 Mining and Reclamation Plan so that the noise limits identified herein are not exceeded.

Commission Consideration/Recommendation

While potential noise impacts are identified to be less than significant with mitigation, the Commission may, in order to ensure adverse effect of surface mining operations will be minimized ((NCC 16.12.020(A)(2)) increase buffer widths or identify additional Exclusion Areas to further reduce potential noise effects of Quarry Operations on the surrounding community to achieve such an objective.

Transportation – The County’s traffic engineering consultant (Matthew G. Kennedy, Registered Professional Traffic Engineer #TR2385) has review the comments presented by Stop Syar Expansion August 11, 2015, prepared by Minagar & Associated, Incorporated (including the . Based on that review the County’s consultant has concluded that the data and conclusions within both the Project’s Traffic Impact Study (TIS) (Winzler & Kelly/GHD August 2013) and the Draft EIR for the Syar Quarry expansion project are appropriate and still valid to evaluate the potential impacts associated with the proposed project. Furthermore, the TIS analysis and results are based on an annual production level of 2 million tons per year. Because the project has been modified by the applicant (Syar Industries, March 17, 2015) to incorporate an annual production limitation of 1.3 million tons per year potential project and cumulative traffic impacts have been reduced to a less than significant level.

Other Responses to Comments

Lead Contamination – On April 19, 2005, the Director of Public Works requested that Napa County Board of Supervisors accept that the work of the *Syar Gun Range Lead and Arsenic Cleanup Project* (Public Works Contract 04-18) as described in the December 2003 Removal and Action Work Plan had been completed, in that the lead and arsenic contamination was cleaned to State standards. On April 22, 2005, the County recorded a Notice of Completion (Document #2005-0015629) to that effect. At that time the Sheriff’s Department converted to lead-free munitions for all duty firearms (except rifles) and installed bullet traps to avoid further lead and arsenic contamination from any lead still being used in rifles. Since that time the Sheriff’s Department has maintained a practice of removing and replacing bullet traps as necessary, at considerable cost, so that the range does not become contaminated again, a practice that continues today (personal communication, John Robertson, Napa County Sheriff).

Job Creation – In the original proposal that included an annual extraction of up to 2 million tons per year Syar anticipated that another shift of 10 to 20 employees many need to be added to accommodate this production rate. Since the annual production rate has been reduced to 1.3 million tons per year an extra shift is not anticipated. In light of this project modification staff included a range for the number of quarry employees in the proposed conditions of approval so that Quarry employees would remain commensurate with existing conditions.

Adaptive Mining Strategy – It has be suggested that the Adaptive Mining Strategy within the proposed Mining and Reclamation Plan (MRP) would allow Syar to mine anywhere within the holding without necessary environmental review. This assumption is false. The proposed MRP includes identified mining areas (or footprint) and exclusion areas, should an approval be granted mining would only be allowed to occur with approved mining areas. The adaptive mining strategy works in conjunction with the annual inspection process to accommodate changing conditions within the allowed mining areas and facilitate effective mining techniques on an annual basis. Any mining considered outside approved bounds would need to be reviewed and authorized through the MRP amendment provision prescribed

in NCC Chapter 16.12. Any unauthorized mining outside the approved bounds would be a violation of the approved plan subject to Article VI (Enforcement) of Napa County Code Chapter 16.12 (Surface Mining and Reclamation), which is also described in Section E of this document.

K. Surface Mining Permit Findings

Pursuant to Chapter 16.12.360 (Surface Mining Permits: Issuance - Required findings) the Commission will need to make the finding below to approve the proposed SMP. Because a preferred project alternative has not yet been selected by the Commission, findings have not yet been prepared by staff. Within Attachment F (Draft Finding) of this meeting report preliminary analysis has been provided for consideration. Once a project alternative is selected formal findings will be developed for the Commission's consideration.

- a. The application is complete and the plans and reports submitted therewith adequately describe the proposed operation.
- b. The project is supported by adequate environmental documents that comply with the provisions of CEQA.
- c. The mining operation to be conducted and subsequent reclamation of the site provide for specific changes or alterations which avoid or mitigate the significant environmental effects of the project as identified in the recommended negative declaration or final EIR or if an EIR was prepared that specifically identified economic, social or other considerations make infeasible the mitigation measures or project alternatives identified therein.
- d. The application as approved demonstrates that the proposed operation will be conducted in compliance with the provisions of the Surface Mining and Reclamation Act, State Board Reclamation Regulations including but not limited to Sections 2502, 3503 and 3700-3713 of Title 14 of the California Code of Regulations, and this chapter.
- e. Any comments received from the Department of Conservation pursuant to Section 16.12.350(C) have been reviewed and considered by the Commission.
- f. The mining operation and reclamation plans, as approved, are consistent with the objectives, policies and general land uses and programs set forth in the general plan, any specific plan applicable to the area of operations, and the zoning of the site.
- g. The reclamation to be undertaken will restore the mined lands to a usable condition which is readily adaptable for alternative land uses which are consistent with the general plan and any specific plan applicable to the area of operations.
- h. Appropriate conditions have been imposed to ensure that the site, during and after reclamation, will not cause a public hazard, will not impair the character of the surrounding neighborhood, nor be detrimental to the public health, safety or general welfare, considering the degree and type of present and probable future exposure of the public to the site.
- i. The proposed timing for reclamation requires reclamation to be fully completed as soon as it is feasible, considering the particular circumstances of the site to be reclaimed, and provides for appropriate incremental reclamation at the earliest feasible time, considering the particular circumstances of the site to be reclaimed
- j. The estimated cost of the reclamation reasonably approximates the probable costs of performing the reclamation work proposed in the reclamation plan approved, the operator/permittee will be

financially able to complete the reclamation, and the security to be posted will be sufficient to ensure completion of the required reclamation.

- k. The applicant has a public liability policy in force for both the mining and reclamation operation which provides for personal injury and property protection in an amount adequate to compensate all persons injured or for property damaged as a result of such operations.

L. Draft Conditions of Approval

Based on the Commission's past direction staff has clarified the proposed conditions of approval. The overall intent of these clarifications was to ensure that conditions could easily be understood and applied. Furthermore, the conditions were reviewed for consistency with mitigation measures and reporting requirements intervals/time frames and to eliminate redundant or duplicative conditions.

Attachment G of the October 21st Commission meeting report includes proposed conditions of approval for the project. The Planning Commission, in its discretion, may include additional conditions or modify or delete any of the proposed conditions they feel necessary to minimize potential adverse effects of the project, whether or not those effects were determined to be potentially significant impacts, or to ensure that mineral resources are appropriately conserved for future use, or to promote the reasonable, safe and orderly operation of mining activities. Examples may include: reducing annual production rates; limiting the number of days, hours or times an activity can occur, such as annually limiting blasting events or the number of times evening or weekend operations occur; requiring more County monitoring of events or operational activities; increasing or decreasing the reoccurrence interval of reporting or updating associated with on-going operations; project phasing, such as limiting the number of active mining areas within the quarry or requiring the commencement or termination of activities within the Quarry, such as the commencement of reclamation in areas where mining has ceased or requiring interim reclamation of areas that will not be mined in the near future.

M. Reclamation Plan

Mining and Reclamation Plan (MRP): The proposed MRP is intended to provide for an Adaptive Management Mining Strategy for the project where active mining areas of the property would consist of no more than 25% (or approximately 218-acres) of the entire 870-acres property at any given time. Under the proposed SMP the operator would submit an initial mining plan identifying proposed mining and processing activities anticipated for the upcoming 12 months, and subsequent to the initial mining plan the operator would annually submit an update to the mining plan that would identify active mining areas and include an administrative report and revised mining site map identifying the mining and any reclamation activities completed in the past 12 months. The proposed MRP would result in greater oversight and monitoring of the facility than current entitlements, and less of the site containing active mining than current conditions. The annual mining plans would be reviewed by the County as part of the facility's annual inspection and financial assurance review required pursuant to SMARA and County Code Section 16.12.500 (Inspection and notice requirements).

Also as required pursuant to proposed condition of approval #1C, 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 areas), the Permittee shall provide the County with an updated/revised Mining and

Reclamation Plan that incorporates these conditions of approval and mitigation measures. The updated/revised plan shall also include a minimum 50 foot buffer from the existing rock wall that defines the mining boundary located in the northeast corner of the Quarry (i.e. the rock wall adjacent to the State Blue Pit). The County shall review the updated/revised Mining and Reclamation Plan to confirm that it is in substantial conformance with project conditions and mitigation measures.

Commission Consideration/Recommendation

The Commission may modify components of the Mining and Reclamation plan to minimize the effects of the proposed project, make CEQA findings, or make Surface Mining Permit Findings. Examples may include: requiring the commencement of reclamation in areas where mining has ceased or in not anticipated to occur, requiring the commencement of reclamation in a specified year for identified mining areas, or revising reclamation techniques or methods to take advantage of site conditions such as enhancing wetlands located along the southwest periphery of the site or ultimately converting runoff detention facilities into wetland features, which may benefit hydrologic functions of the facility after mining has been completed.

Staff is recommending that the Commission consider approval of the Mining and Reclamation Plan, as modified by the selected project alternative and including requiring the commencement of reclamation in the State Blue Pit area and interim reclamation in areas that will not be mined in the near future such as south of the State Blue Pit.

N. Project Documents

Documents associated with this application and staff report, including the Draft EIR, the Final EIR, the 2012 Mining and Reclamation Plan, and comments and correspondence received to date (from February through September 17, 2015) can be accessed at <http://www.countyofnapa.org/Syar/>

For copies of previous Commission Staff Reports associated with this item (January 7th, February 18th, April 1st, August 12th, and September 2nd, 2015) and video archives of these meetings, please go the Napa County Planning Commission Agenda and Minutes Webpage at http://napa.granicus.com/ViewPublisher.php?view_id=21