This section evaluates the potential impacts of the proposed project related to water supply and stormwater drainage infrastructure and capacity. Hydrological impacts as a result of stormwater drainage are discussed in Section 3.7, Hydrology and Water Quality, of this DEIR. This section describes existing water supplies and associated infrastructure as well as existing stormwater drainage facilities and provides an analysis of the proposed project's potential impacts related to increased water supply demand and the construction of new and expanded stormwater drainage facilities. Project impacts related to solid waste and wastewater were determined to have no impact in the Notice of Preparation/Initial Study (NOP/IS). As such, these impact areas are not evaluated in this section. The reader is referred to the NOP/IS (EIR Appendix A) for a discussion regarding these topics and Section 3.9, Environmental Effects Determined Not to Be Significant.

This section is based on a Water Supply Assessment (WSA) prepared for the proposed project by Lilburn Corporation in June 2013 (included in **EIR Appendix H**), an existing stormwater pollution prevention plan (SWPPP) prepared for the quarry operation in 2008, a technical study entitled "White Knob Quarry Haul Road Drainage Report and Plan of Development" prepared by Stantec in 2011, and a "Technical Memorandum: White Knob Quarry and Haul Road" prepared by Stantec in September 2013 that supplements the 2011 drainage report (included in **EIR Appendix G**), as well as the proposed Amended Plan.

The County published a Notice of Preparation and Initial Study (NOP/IS) for the proposed project on June 12, 2013. A copy of the NOP/IS, along with comments received during the public review period, is contained in **EIR Appendix A**. No comments were received regarding utilities and service systems.

3.8.1 STORMWATER DRAINAGE FACILITIES

3.8.1.1 EXISTING SETTING

DRAINAGE FLOWS AND INFRASTRUCTURE

Within the quarry areas, runoff is directed into the quarries. Outside of the quarry areas, runoff collects in natural drainage channels caused by topographical lows in the surrounding terrain and flows north off-site into the natural drainage. The on-site haul road from the crusher area to the northeast corner of the project site east of OB-1 serves as one such channel carrying stormwater from the southern areas northward. There are no permanent water bodies to which these drainage channels discharge; instead, drainage appears to be lost to infiltration and evapotranspiration (Stantec 2008, p. 7). A brief discussion of the project drainage facilities is provided below

Existing Control Measures

Numerous erosion and sedimentation controls have been and will continue to be implemented in the quarries and stockpile areas to control, minimize, and prevent off-site sedimentation. Runoff is directed into the quarries, and many sediment basins, culverts, dips, or drains direct water off roads. A number of energy dissipaters, riprap, hay bales, catch basins, and/or silt fences trap sediment and prevent it from traveling off-site (Omya California 2013, p. 37). These facilities are used to control to the amount of stormwater and sedimentation flowing off-site during a storm event.. Sedimentation and erosion monitoring reports have been competed periodically for the project. The most recent is the Sedimentation and Erosion Monitoring, 2012–2013 Reporting Period, completed by Deane Consulting, Inc. These reports identify the annual rate of sedimentation and erosion, and volumetric changes of Western Drainage soils in

response to storm events. The western sector of the White Knob Quarry area drains into the Western Drainage and flows downstream through the Ruby Springs area. A detailed discussion of these facilities and the drainage areas is provided in Section 3.7, Hydrology and Water Quality.

On-Site Haul Road/Drainage

The on-site haul road within the quarry area from the crusher area to the northeast corner of the project site east of OB-1 carries stormwater from the southern areas northward. The area where the haul road is located does not have the width to provide a separate drainage channel. The drainage report determined that the existing required 4-foot berms on each side (or a hillside slope or eventually the side slope of OB-1), as required for truck safety per the Mine Safety and Health Administration (MSHA), are adequate to contain the 10-year design flow and the 100-year flow within the roadway with over 2 feet of freeboard. The haul road would be graded as needed with a 2 percent cross fall and berm openings for the existing sediment catchment basins on the site. Equipment and aggregate material is located on-site to make repairs to the roadway/drainage damaged during a storm.

Sediment Basins

There are currently four sediment catchment basins on the quarry site as well as two basins off-site. Sediment Basins 1, 3, 4, and 5 are located along the haul road, while Basins 6 and 7 are located just off-site. See Figures 2.0-2 and 2.0-3 in Chapter 2.0, Project Description, for sediment basin locations.

Quarries

The existing and future mining activities located on the site would create and deepen the quarry pit floors. Currently, runoff is directed into the existing sediment basins where it is allowed to infiltrate or evaporated naturally. Future runoff down slopes, benches, roads, and ramps and any sediment will be directed into the mined-out portion of the quarry or into sediment basins. For the White Knob Quarry, the final backfill will be designed to act as a permanent sediment basin.

3.8.1.2 REGULATORY FRAMEWORK

STATE

Surface Mining and Reclamation Act

The California Surface Mining and Reclamation Act (SMARA) contains a number of provisions addressing drainage diversion structures, waterways (14 California Code of Regulations [CCR] Section 3706), and stream protection including surface water and groundwater (14 CCR Section 3710). SMARA also requires that erosion control methods be designed for the 20-year/1-hour intensity storm event (14 CCR Section 3706(d)) and control erosion and sedimentation (14 CCR Section 3706(c)). The SMARA regulations also require reclamation plans to include performance standards for drainage and erosion to protect water quality, including streams, surface water, and groundwater. These performance standards must ensure compliance with the Clean Water Act, the Porter-Cologne Water Quality Control Act, and other legal requirements (14 CCR Sections 3706 and 3710(a)).

LOCAL

San Bernardino County General Plan

The General Plan includes policies and programs that are intended to address drainage facilities. For instance, the General Plan requires new development to use site design, source control, and treatment control best management practices (BMPs) on applicable projects to achieve compliance with the County Municipal Stormwater National Pollutant Discharge Elimination System (NPDES) Permit. The NPDES Permit Program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Please refer to Section 3.7, Hydrology and Water Quality, for an expanded discussion of the NPDES. The General Plan includes the following project-related drainage policies:

Policy CO 5.1 Because the San Bernardino County Flood Control District is responsible for debris basin construction and maintenance at the base of the mountains, development in these areas will be coordinated with that agency.

Policy CO 5.4 Drainage courses will be kept in their natural condition to the greatest extent feasible to retain habitat, allow some recharge of groundwater basins and resultant savings. The feasibility of retaining features of existing drainage courses will be determined by evaluating the engineering feasibility and overall costs of the improvements to the drainage courses balanced with the extent of the retention of existing habitat and recharge potential.

Policy M/CO 3.2 Require naturalistic drainage improvements where modifications to the natural streamway are required.

Policy M/CO 3.3 Prohibit exposed concrete drainage structures. Acceptable designs include combinations of earthen landscaped swales, rock rip-rap lined channels or rock-lined concrete channels. Property owners must provide for the maintenance of underground drainage structures.

Policy M/CO 3.6 Minimize the runoff of surface water and establish controls for soil erosion and sedimentation through the following policies:

a. Through the development review process, require replanting of ground cover in denuded areas with revegetation, either indigenous to the area or compatible with the climate and soil characteristics of the region.

b. When development occurs, provide for the retention of natural drainage channels and capacity of the site where feasible.

c. When feasible, require developers, through the development review process, to maintain existing percolation and surface water runoff rate by discouraging the paving of large surface areas.

San Bernardino County Code

Chapter 83.09: Infrastructure Improvement Standards

Chapter 83.09 of the San Bernardino County Code establishes the infrastructure improvements required for proposed development in order to ensure that the development does not result in

fiscal liabilities to county residents. The intent is to require an appropriate range of infrastructure facilities and services to support areas of high-intensity development and areas of low-intensity development. The requirements are based on the direct relationship between the intensity of land uses and the amounts of facilities and services that are needed to support the uses.

Chapter 88.03: Surface Mining and Land Reclamation

The County of San Bernardino is the SMARA lead agency for the White Knob/White Ridge Limestone Quarries and the CEQA lead agency for this project. The purpose and intent of Chapter 88.03 is to ensure the continued availability of important mineral resources, while regulating surface mining operations. Section 88.03.080(2)(b)(4) requires financial assurances to ensure compliance with elements of the reclamation plan related to erosion and drainage control.

3.8.1.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, a stormwater drainage impact is considered significant if project implementation would result in the following:

i. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

METHODOLOGY

The following analysis is based on the proposed drainage improvements described in the Amended Plan as well as the Stantec *White Knob Haul Road Drainage Study and Plan of Development Report* and the *Technical Memorandum,* both provided in **EIR Appendix G.**

IMPACTS AND MITIGATION MEASURES

Construction of New Stormwater Drainage Infrastructure (Standard of Significance 1)

Impact 3.8.1.1 The proposed project includes drainage improvements and the construction of new stormwater drainage infrastructure, the construction of which could result in significant environmental effects. These effects are addressed in the appropriate technical sections of this EIR and, where necessary, are mitigated to a less than significant level with mitigation measures identified in this EIR. Therefore, this impact would be **less than significant**.

The proposed project includes improvements to the primary access/haul road within the existing Bureau of Land Management (BLM) right-of-way. These improvements include grading the haul road with a 2 percent cross fall and creating openings in the berms that run along the road to allow runoff to flow into existing sediment catchment basins on the site.

Within the quarries, future mining activities would create and deepen the existing and proposed pit floors. Future runoff down slopes, benches, roads, and ramps and any associated sediment would continue to be directed into the mined-out portion of the quarry or into existing or proposed sediment basins.

At the site of OB-1, Basins 4 and 5 would be improved per the updated sedimentation control plan, and secondary sediment basins would be constructed to the stockpile's northwest and north to prevent sediment from leaving the site. At the site of OB-2, Basin 11 would also be improved per the updated sedimentation control plan. At the site of OB-3, Basin 3 would be constructed at the toe to collect sediment from the stockpile.

All project drainage infrastructure improvements would be constructed on-site and would not require the expansion of off-site improvements.

During reclamation of the site, drainage improvements would generally involve grading or reshaping disturbed areas on the project site, establishing effective drainage, placement of plant growth media, and revegetation. Following reclamation, the majority of surface runoff from quarry areas would be retained in the quarry limits, where it would either infiltrate or evaporate. For the White Knob Quarry, the final backfill would be designed to act as a permanent sediment basin.

There are a number of regulations in SMARA regarding site drainage, erosion, and water quality. SMARA Section 3502(h)(1) requires that an amended plan must conform to the current reclamation standards required by SMARA regarding drainage systems or storage that the new area would utilize. Additionally, Section 3503(d) requires that permanent piles or dumps of mine waste rock and overburden are stable and not restrict the natural drainage without suitable provisions for diversion. Further Section 3503(e) requires that grading and revegetation be designed to minimize erosion and to convey surface runoff to natural drainage courses or interior basins designed for water storage. Basins that would store water during periods of surface runoff are to be designed to prevent erosion of spillways when these basins have outlet to lower ground.

SMARA Section 3706(d) requires that surface runoff and drainage from surface mining activities be controlled by berms, silt fences, sediment ponds, revegetation, hay bales, or other erosion control measures to ensure that surrounding land and water resources are protected from erosion, gullying, sedimentation, and contamination. Erosion control methods must be designed to handle runoff from not less than the 20-year/1-hour intensity storm event. Section 3706(e) requires that where natural drainages are covered, restricted, rerouted, or otherwise impacted by surface mining activities, mitigating alternatives are to be proposed and specifically approved in the reclamation plan to assure that runoff does not cause increased erosion or sedimentation.

San Bernardino County Code Section 88.03.080(2)(b)(4) requires financial assurances to ensure compliance with elements of the reclamation plan related to slope stability and erosion and to drainage control during and at the conclusion of a project.

The construction of these proposed improvements in areas not previously disturbed by project operations would include grading, excavating, cut and fill, and other earthmoving and construction activities that could result in temporary environmental effects such as greenhouse gas and other air emissions, disturbance of biological or cultural resources, soil erosion, water quality degradation, increased noise and truck traffic related to construction of the drainage improvements, and increased water demand for dust control. These potential impacts were either addressed and found to be less than significant in the NOP/IS prepared for the proposed project or are addressed in the appropriate technical sections of this EIR and, where necessary, are mitigated to a less than significant level with mitigation measures identified in this EIR. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

3.8.2 WATER SUPPLY

3.8.2.1 EXISTING SETTING

REGIONAL WATER SYSTEM

There is no public water supplier for the project site. Residents of Lucerne Valley, north of the project site, receive water via individual wells, mutual water companies, or small county water districts. The County of San Bernardino has a County Service Area (CSA 29) in Lucerne Valley that serves commercial customers only and does not overlie the project site. On the north shore of Big Bear Lake, south of the project site, the community of Fawnskin is served by the Big Bear Department of Water and Power, and the remainder of the north shore lies within CSA 53-C. The project is not part of a regional water system (**EIR Appendix H**, Lilburn Corporation 2013, p. 5).

WATER SUPPLY

Groundwater

The existing mining operation uses groundwater from two wells, one of which is located on-site, while the other is located near the processing plant north of the project site. The wells pump groundwater from the Este Subarea of the Mojave Water Basin.

The Watermaster for the Mojave Water Basin,1 the Mojave Water Agency (MWA), in its Nineteenth Annual Report of the Mojave Basin Area for Water Year 2011–12, dated May 1, 2013, indicates that water levels in the Este Subarea have remained stable for the past several years, indicating a relative balance between recharge and discharge. Unused Free Production Allowance (FPA) for the Este Subarea, as reported by the Watermaster, was 14,430 acre-feet for Water Year 2009–10, 13,632 acre-feet for Water Year 2010–11, and 14,800 for Water Year 2011–12. Based on the Watermaster report, the Water Year 2012–13 FPA for the Este Subarea is recommended to be set at 80 percent of the Base Production Allowance of 19,277 acre-feet, or 15,422 acre-feet. **Table 3.8-1** summarizes the 2011–12 Watermaster Report data, as reported in the WSA for the proposed project (**EIR Appendix H**, Lilburn Corporation 2013, p. 8).[2]

1 As Watermaster, the MWA's main responsibilities are to monitor and verify water production for approximately 475 parties (1,700 wells), collect required assessments, conduct studies, and prepare an annual report of its findings and activities to the court. Watermaster also acts as the clearinghouse for recording water transfers, maintains records for all such transfers, and reports changes in ownership of Base Annual Production rights to the court.

2 Subsequent to completion of the WSA in June 2013 and after the NOP/IS was released for public review in June 2013, the MWA published its Twentieth Annual Report of the Mojave Basin for Water Year 2012-2013, dated May 1, 2014 (MWA 2014). The Twentieth Annual Report presents the most current available information about conditions in the Este Subarea as of the publication date of this EIR. A review of the data in the Twentieth Annual Report indicates similar conditions to those in the Nineteenth Annual Report for the Este Subarea, including Omya's water use, and no substantial differences were identified that would affect the conclusions of the WSA.

TABLE 3.8-1
WATERMASTER DATA FOR ESTE SUBAREA GROUNDWATER PRODUCTION (ACRE-FEET)

2011–12 Verified Production	Production Safe Yield	2011–12 Free Production Allowance	2012–13 Recommended Free Production Allowance
5,433	7,156	16,376	15,422

Source: EIR Appendix H, Lilburn Corporation 2013, p. 8

The Mojave Groundwater Basin is subject to adjudication (see subsection 3.8.2.2, Regulatory Framework, below). In carrying out the Mojave Basin Judgment (the adjudication), the Mojave Water Agency assigned Base Annual Production (BAP) amounts to each producer using 10 acre-feet per year or more, based on historical production (1986–1990). The total BAP from all producers was ramped down in each year from 1994 to 2005 in order to achieve the point where water imports and inflows versus consumption achieve safe yield of the basin. The MWA achieved its target rampdown in 2004/2005.

Each pumper also has been assigned a variable Free Production Allowance, which is a uniform percentage of BAP set for each area. A substantial make-up water assessment is charged for water pumped in excess of the assigned FPA. Water purveyors also have the option of leasing additional water rights from the open market.

Omya has an FPA that was allocated as part of the adjudication. Omya's original (1993) BAP was set at 23 acre-feet per year. This was ramped down annually to a current FPA of 19 acre-feet per year (82.6 percent of BAP). Note that these allocations are for both of Omya's existing mining operations in the area—the White Knob/White Ridge Quarries and the Butterfield/Sentinel Quarries.

Any groundwater that Omya pumps over and above the FPA is subject to replacement. Replacement can occur either by paying the Watermaster to purchase supplemental water from the MWA or by acquiring/transferring unused production rights within that subarea from another party to the Mojave Basin Judgment. Historically, Omya has had prior year carryover from unused FPA, with a prior year carryover of 19 acre-feet, and a total adjusted FPA of 38 acre-feet. **Table 3.8-2** shows FPA, verified production, carryover credits, and unused FPA for the period of water years 2002–03 through 2011–12, as reported in the WSA (**EIR Appendix H**, Lilburn Corporation 2013, p. 9).

TABLE 3.8-2
OMYA FREE PRODUCTION ALLOWANCE AND PRODUCTION
WATER YEARS 2002-03 THROUGH 2011-12

Water Year	Free Production Allowance (acre-feet)	Verified Production (acre-feet)	Carryover Credits[1] (acre-feet)	Unused FPA[2] (acre-feet)
2002–03	19	15	19	19
2003–04	19	14	19	19
2004–05	19	14	19	19
2005–06	19	18	19	19
2006–07	19	19	19	19
2007–08	19	14	19	19
2008–09	19	14	19	19

Water Year	Free Production Allowance (acre-feet)	Verified Production (acre-feet)	Carryover Credits[1] (acre-feet)	Unused FPA[2] (acre-feet)
2009–10	19	14	19	19
2010–11	19	13	19	19
2011–12	19	14	19	19

Source: EIR Appendix H, Lilburn Corporation 2013, p. 9
Notes:
1. Carryover credits are based on a total adjusted FPA of 38 acre-feet.
2. Unused FPA is based on a total adjusted FPA of 38 acre-feet. As such, 38 acre-feet adjusted FPA minus the FPA of 19 ace-feet equals 19 acre-feet.

Historical Groundwater Data

According to the Mojave Water Agency's 2010 Urban Water Management Plan (UWMP), verified groundwater production in the Este Subarea decreased from 8,800 acre-feet in 1994 to 6,500 acre-feet in 2004. Since 1998, verified groundwater production in the Este Subarea has been less than 7,100 acre-feet.

The Mojave Basin Judgment mandates that groundwater extraction from the basin not exceed the estimated annual supplies and empowers the Watermaster to enforce pumping limits as mandated by the court. The MWA will continue to recharge the aquifer so that groundwater will remain a reliable source of water for the foreseeable future. Among other things, the MWA has established a groundwater replenishment program for the Mojave Water Basin, including the Este Subarea, the purpose of which is to reduce annual and cumulative groundwater overdraft through artificial recharge to the groundwater basin.

The Omya production well located near the plant (Plant Well) was drilled in 1987; depth to groundwater at the time of well installation was 867 feet below ground surface (bgs). The second well located in Crystal Canyon (Crystal Creek Well) was drilled in 1990, and depth to groundwater was recorded as 85 feet bgs. Omya has not recently maintained depth to water records for either well (**EIR Appendix H**, Lilburn Corporation 2013, p. 10).

Surface Water

The Mojave River is the primary source for replenishment of the Mojave Basin, with an average natural inflow of 65,500 acre-feet. The local surface inflows depend on climatic conditions and represent a small portion of the total supply. Recharge flows are often subsurface and not available for surface water capture or treatment. Water from the State Water Project is the only other surface water that may be considered for treatment or direct use and is limited by the variability of the supply from the Delta and the amount of water the MWA has available after contractual deliveries are met. Surface water is not treated or used for domestic water purposes (**EIR Appendix H**, Lilburn Corporation 2013, p. 11).

Recycled Water

No recycled water is available to the project site or within the area of the water supply. The existing plant administrative offices are connected to a septic system. Portable toilets are used at the quarry sites (**EIR Appendix H**, Lilburn Corporation 2013, p. 12).

State Water Project

The MWA is one of 29 State Water Project (SWP) contractors. The SWP includes 660 miles of aqueduct and conveyance facilities extending from Lake Oroville in the north to Lake Perris in the south. The SWP is contracted to deliver 4.1 million acre-feet per year to the 29 contracting agencies. However, state and federal biological opinions to protect endangered fish, climate change, and levee vulnerability in the Delta have decreased projected deliveries to 60 percent of contracted amounts until the year 2028, increasing to 61 percent in 2029 (**EIR Appendix H**, Lilburn Corporation 2013, p. 11). SWP delivery reliability factors of between 60 and 61 percent were utilized in the MWA Urban Water Management Plan, yielding projected supplies as shown in T**able 3.8-3**.

TABLE 3.8-3
MOJAVE WATER AGENCY
SUMMARY OF CURRENT AND PLANNED WATER SUPPLIES (ACRE-FEET PER YEAR)

Supply Type	2010	2015	2020	2025	2030	2035
Local	131,994	137,633	141,314	147,121	152,921	54,778
State Water Project	49,680	51,480	53,880	53,880	54,778	158,712
Total	181,674	189,113	195,194	201,001	207,699	213,490

Source: EIR Appendix H, Lilburn Corporation 2013, p. 11

The MWA has recognized the need for additional imported water in order to eliminate groundwater overdraft and has purchased additional water from the SWP when available. Additional SWP water is not expected to be available on a regular basis in the future and should not be relied on as the only long-term source of overdraft reduction in the Mojave Water Basin. Purchase of additional SWP water involves the purchase of water on the spot market, as opposed to the purchase of entitlement to an ongoing supply of that water. It should be noted that the spot market comes into play when all of the MWA's entitlements are being imported into the basin.

The MWA reached agreement with the Metropolitan Water District (MWD) of Southern California in 2003 to store up to 75,000 (45,000 delivered to date) acre-feet for the MWD in the Mojave Water Basin. This storage is being provided in exchange for the MWD's right to receive an equal amount of water in the future, through entitlement exchange, should there be a significant drought. In addition to the spot market, on an ongoing basis the MWA is pursuing additional State Water Project entitlements when they become available. In dry years when SWP or Colorado River supplies are reduced, the MWD will have the ability to call back some of the transferred water stored in the Mojave Water Basin, based on the limitations of the storage agreement between the MWD and the MWA (EIR Appendix H, Lilburn Corporation 2013, p. 11).

WATER SUPPLY RELIABILITY

The Mojave Water Agency 2004 Regional Water Management Plan projects the single-dry year conditions to be based on the 1977 Southern California drought conditions. Such hydrologic conditions are used by the California Department of Water Resources as conditions under which State Water Project water deliveries would be limited to 4 percent of SWP contractors' entitlements. As shown in Table 5-16 of the MWA 2004 Regional Water Management Plan, the Este Subarea would experience deficits (in five-year increments) as follows:

2005 (2,650) acre-feet

2010 (2,850) acre-feet

2015 (3,050) acre-feet

2020 (1,500) acre-feet

2025 (1,650) acre-feet

2030 (1,850) acre-feet

The BPA is a percentage of water production that occurred during the "base year" as established in the Judgment and is used by the Watermaster for purposes of annually establishing an FPA for each major groundwater producer. According to the Nineteenth Annual Report of the Mojave Basin Area Watermaster, the Este Subarea may be subject to future rampdown of the BPA to 65 percent immediately if water use conditions change.

The water supplies and demands of the Mojave Water Agency's entire service area were projected in the 2010 UWMP to account for a single-dry year event and a four-year multiple-dry year event occurring during the period 2010 through 2035. The analyses presented in the 2010 UWMP show that the Mojave Water Agency has adequate supplies to meet demands during average, single-dry, and multiple-dry years throughout the 20-year planning period (**EIR Appendix H**, Lilburn Corporation 2013, pp. 12-13).

Water Demand

Existing Project Demands

Lucerne Valley lies within the Este Subarea of the Mojave Basin. The 2010 UWMP shows that the subarea had a population of 6,680 in 2005, and the population was projected to grow to 11,785 by the year 2035. Water production in the Este Subarea has declined according to reports filed with the Mojave Basin Watermaster. Water production was 9,700 acre-feet in 1996, 7,100 acre-feet in 1998 and 2000, and 5,900 acre-feet in 2003. Projected water demand within the Este Subarea was estimated to increase from 6,981 acre-feet in 2005 to 7,369 acre-feet in 2035 (**EIR Appendix H**, Lilburn Corporation 2013, p. 6).

The average annual production from Omya's two wells (utilized by both the White Knob/White Ridge and Butterfield/Sentinel mining operations), verified by the Watermaster during the five-year period of 2007/08 to 2011/12, was 13.8 acre-feet (**EIR Appendix H**, Lilburn Corporation 2013, p. 6). The White Knob/White Ridge Quarries portion of this annual demand is estimated at approximately 2.75 acre-feet per year (Omya California 2013, p. 34).

3.8.2.2 REGULATORY FRAMEWORK

STATE

Senate Bill 610

Senate Bill (SB) 610 (Water Code Section 10910(c)(2)) makes changes to the Urban Water Management Planning Act to require additional information in Urban Water Management Plans if groundwater is identified as a source available to the supplier. Required information includes a

copy of any groundwater management plan adopted by the supplier, a copy of the adjudication order or decree for adjudicated basins, and if nonadjudicated, whether the basin has been identified as being overdrafted or projected to be overdrafted in the most current California Department of Water Resources (DWR) publication on that basin. If the basin is in overdraft, the plan must include current efforts to eliminate any long-term overdraft. A key provision in SB 610 requires that any project subject to CEQA supplied with water from a public water system be provided a specified water supply assessment, except as specified in the law. Water supply assessments are required under SB 610 for industrial projects occupying more than 40 acres of land (DWR 2003). Therefore, the proposed project is subject to this requirement. A Water Supply Assessment (Lilburn Corporation 2013) was prepared for the proposed project and is included in **EIR Appendix H**.

LOCAL

Mojave Groundwater Basin Adjudication

The Mojave Basin, including the Este Subarea where the proposed project is located, has been the subject of adjudication to determine the water rights of the various producers. The adjudication process of the groundwater in the basin began in 1990, with cross complaints filed in 1991. In 1992, numerous parties agreed to conduct good faith negotiations, and by 1993, over 75 percent of the parties involved were agreed to the Stipulated Judgment, thus binding the involved parties. In 1995, a trial of the non-stipulated parties was completed. The final judgment was entered in 1996 adopting the physical solution set forth in the Stipulated Judgment. The purpose of the Stipulated Judgment was to create incentives to conserve local water, guarantee that downstream producers will not be adversely affected by upstream producers, and assess producers to obtain funding for the purchase of imported water.

In addition, the Stipulated Judgment required that the Mojave Basin Area Watermaster generate an annual report summarizing yearly Watermaster activities and water supply conditions for the Mojave Water Basin, which includes the Alto Subarea, Baja Subarea, Centro Subarea, Este Subarea, and Oeste Subarea. The project site obtains groundwater from wells in the Este Subarea (EIR Appendix H, Lilburn Corporation 2013, p. 9).

San Bernardino County General Plan

The General Plan includes policies and programs that address water supply. For instance, the General Plan requires new development to implement measures to conserve and reclaim water and to ensure that adequate water supply and conveyance infrastructure is available prior to approval of new development projects. The General Plan includes the following project-related policies and programs that address water supply:

Policy CO 5.3 The County will promote conservation of water and maximize the use of existing water resources by promoting activities/measures that facilitate the reclamation and reuse of water and wastewater.

Programs

6. New development will implement feasible water conservation measures recommended by the water agency or purveyor that supplies the development with water.

Policy M/CO 3.9 Support and apply water conservation and reuse measures through the development review process.

Policy CI 11.9 Encourage water conservation, replenishment programs, and water sources in areas experiencing difficulty in obtaining timely or economical water service from existing potential suppliers, or water quality or quantity problems.

Policy CI 11.12 Prior to approval of new development, ensure that adequate and reliable water supplies and conveyance systems will be available to support the development, consistent with coordination between land use planning and water system planning.

3.8.2.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, a water supply impact is considered significant if project implementation would result in the following:

1) Have insufficient water supplies available to serve the project from existing entitlements and resources requiring new or expanded entitlements.

The NOP/IS prepared for the proposed project (see **EIR Appendix A**) concluded that the project would not require or result in the construction of new water treatment facilities or the expansion of existing facilities, and no impact would occur related to this issue. Therefore, this issue is not addressed further in this section.

METHODOLOGY

The following analysis is based on a Water Supply Assessment prepared for the proposed project by Lilburn Corporation in June 2013 (see **EIR Appendix H**).

IMPACTS AND MITIGATION MEASURES

Adequate Water Supply (Standard of Significance 1)

Impact 3.8.2.1 The proposed project would increase the mining operation's total demand for groundwater but would not exceed existing entitlements. This impact would be **less than significant**.

The proposed project would require additional water supply for dust control and limited irrigation for establishing revegetation areas. At completion, the proposed project would generate a maximum water demand totaling an estimated 2.25 acre-feet per year over existing water use. This estimate is based on historic water use records compared to proposed quarry production. The use of magnesium chloride on roads and other active mine areas and the occurrence of typically wet winter weather can contribute to a reduction in this maximum water demand during any given year.

The mining operation currently uses approximately 2.75 acre-feet of water annually for dust control at the quarries, overburden placement areas, haul roads, and at the crusher. Therefore, with implementation of the proposed project, the total demand at maximum production would

be approximately 5 acre-feet per year. All water supplied to the project would come from the existing two wells and infrastructure, and no new wells or infrastructure would be needed to supply future water to the project site.

Omya's FPA under the Mojave Basin adjudication, for both of its mining operations, is currently 19 acre-feet per year. The average annual production from Omya's two wells during the five-year period of 2007/08 to 2011/12 was 13.8 acre-feet. This indicates an average annual FPA surplus of approximately 5 acre-feet per year, which is sufficient to accommodate the proposed project's projected demand increase of 2.25 acre-feet per year.

The WSA concluded the analyses presented in the 2010 UWMP show that the MWA has adequate supplies to meet demands during average, single-dry, and multiple-dry years throughout the 20-year planning period of the UWMP. In the event water supplies become limited, Omya could maintain a limitation on its water use to be equivalent or less than 65 percent of its BPA (or 14.95 acre-feet). Under current projections, this limitation on water use would not require the implementation of conservation measures (**EIR Appendix H**, Lilburn Corporation 2013, p. 13).

Therefore, Omya has sufficient water supplies available to serve the proposed project from existing entitlements under the Mojave Basin adjudication, and no new or expanded entitlements are required. This impact would be **less than significant**.

The reader is referred to Section 3.7, Hydrology and Water Quality, as well as Section 3.9 Environmental Effects Determined Not to be Significant, for an analysis of the proposed project's potential impacts on groundwater supplies.

Mitigation Measures

None required.