2.0 ENVIRONMENTAL SETTING

2.1 CEQA REQUIREMENTS FOR ENVIRONMENTAL SETTING AND BASELINE CONDITIONS

CEQA Guidelines § 15125 establishes requirements for defining the environmental setting to which the environmental effects of a proposed project must be compared. The environmental setting is defined as "…the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time the environmental analysis is commenced…" (CEQA Guidelines § 15125[a]). As required under CEQA, aside from specifics related to the historic production averages for the operating Mine, as discussed in more detail below, the Project site's baseline physical conditions are set at the time the notice of preparation (NOP) for this EIR was published, which is June 25, 2015.

CEQA Guidelines § 15125 further clarifies that the environmental setting "…will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." California courts have held that using the qualifying term, "normally," CEQA Guidelines § 15125 recognizes that in appropriate situations a lead agency has the discretion to select a different baseline method that accounts for the circumstances presented. (See *Fat v. County of Sacramento (2002) 97 Cal.App.4th 1270, 1278*.) In the case of mining projects specifically, the courts have held that the established usage of the property (i.e., historic production averages for the operating mine) may be considered to define the environmental setting. (See *San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal.App.4th 645, pg. 659*.) Because the amount of material that mining operators quarry is driven by supply and demand market forces that vary from month to month and year to year, the courts have ruled that it is appropriate to consider conditions over a time period range to establish a production volume average. (*See Hansen Brothers Enterprises, Inc. v. Board of Supervisors (1996) 12 Cal.4th 533,; Save Our Peninsula Committee v. Monterey County Bd. of Supervisors, 87 Cal.App.4th at p. 125*.) The environmental setting for a long-operating mine must take into account the historical averages, because using only a single year of production values would be "misleading and illusory." (See *Fairview Neighbors v. County of Ventura (1999) 70 Cal.App.4th 238*.) However, the existing baseline conditions must also be representative of the mine's actual operations (acknowledging latitude where operations fluctuate), and not be based merely on theoretical conditions, such as a theoretical maximum allowed under an approved permit that has not actually been realized based on historical data. (See *Communities for a Better Environment v. South Coast Air Quality Management District, et al. (2010) 48 Cal.4th 310*.)

In accordance with the provisions of CEQA Guidelines § 15125(a) and relevant CEQA case law, for proposed projects that seek to modify existing on-going mining permits, the operational characteristics of the "Project" evaluated by the CEQA document are the characteristic differences between the proposed permit provisions (maximum quantity of materials that would be allowed to be mined) compared against the historical baseline average. Table 2-1, *Annual Mine Tonnage (2007 through 2014)*, presents the annual tonnage for the Nichols Canyon Mine for the years 2007 through 2014. Although proposed SMP No. 2015-01 would reduce the allowed maximum total annual tonnage material from 4,000,000 tons per year (tpy) to 856,560 tpy, historical data recorded by the Mine operator indicates that the Mine produced an average of approximately 556,349 tpy between 2007 and 2014. (Project Applicant, 2015a)

Table 2-1 Annual Mine Tonnage (2007 through 2014)

Year	Production
2007	546,650 tpy
2008	1,192,136 tpy
2009	427,010 tpy
2010	561,461 tpy
2011	617,069 tpy
2012	449,894 tpy
2013	254,515 tpy
2014	402,048 tpy
Total (2007-2014):	**4,450,783 tons**
Annual Average:	**556,348 tpy**

It is important to note that the Project applicant is entitled to continue operating the Nichols Canyon Mine under vested mining rights and approved reclamation plan RP 2006-01A1 until all reserves at the Mine are exhausted. Thus, consistent with CEQA and case law interpreting CEQA, the Project environmental impacts analyzed in this EIR are the incremental impacts beyond those associated with existing operations at the Mine.

2.2 REGIONAL SETTING AND LOCATION

The Nichols Canyon Mine comprises approximately 199 acres (Assessor Parcel Numbers (APN Nos) 389-200-35, 389-200-036, and 389-200-38) and is located in the northeastern portion of the City of Lake Elsinore (see Figure 3-1, *Regional Map*). From a regional perspective, the Nichols Canyon Mine is located north of the City of Wildomar, east of Interstate 15 (I-15), and south of the Temescal Valley, with areas to the east located within unincorporated Riverside County.

The City of Lake Elsinore is located in the southwestern portion of Riverside County. Surrounding cities include Canyon Lake and Menifee to the east; Wildomar to the south; and unincorporated lands to the north, east and southwest. The incorporated boundaries of the City of Lake Elsinore encompass 43 square miles within the County of Riverside. In addition, the City maintains a Sphere of Influence (SOI) that extends into unincorporated Riverside County land and covers more than 72 square miles. The majority of the land within the boundaries of the City of Lake Elsinore SOI and outside of the City's incorporated area is vacant undeveloped land. The Cleveland National Forest borders the City of Lake Elsinore on the west. (Lake Elsinore, 2011b, p. 3.1-1)

Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square mile region comprising San Bernardino County, Riverside County, and the eastern tip of Los Angeles County. The Southern California Association of Governments (SCAG) estimates that the majority of growth in the entire southern California region will take place in Riverside and San Bernardino Counties (SCAG, 2012b, p. 2). According to U.S Census data, the 2010 population of Riverside County was 2,189,641 (USCB, 2015). SCAG forecast models predict that the population of Riverside County will grow to approximately 3.324 million persons (an approximate 1.1 million person increase) by the Year 2035 (SCAG, 2012c).

2.3 LOCAL SETTING AND LOCATION

At the local scale, State Route 74 (SR-74) is located approximately 1.0 mile to the south, I-215 is located approximately 9.1 miles to the east, and State Route 91 (SR-91) is located approximately 16.8 miles to the north of the Nichols Canyon Mine. Specifically, the Nichols Canyon Mine is located east of I-15 and north and south of Nichols Road (see Figure 3-2, *Vicinity Map)*. Interstate 15 (I-15) abuts the Mine's western boundary. The property is divided into two segments by Nichols Road with approximately 156 acres located north of Nichols Road and approximately 43 acres located south of Nichols Road.

The City of Lake Elsinore General Plan divides the City and its SOI into sixteen Districts/Sphere Plans. As illustrated on Figure 2-1, *Alberhill District Land Use Plan*, the Nichols Canyon Mine is located in the Alberhill District. The Alberhill District encompasses approximately 4,240 acres and consists primarily of extractives uses, vacant lands, and emerging construction of residential and commercial uses as well as a community park. The area that is primarily used for extractive uses is located within 0.50 mile from Lake Street, which transects the Alberhill District in a north/south direction. Much of the topography on the central areas, east and west of Lake Street, has been altered as a result of the long history of extractive/mining activities. (Lake Elsinore, 2011a, p. AH-5)

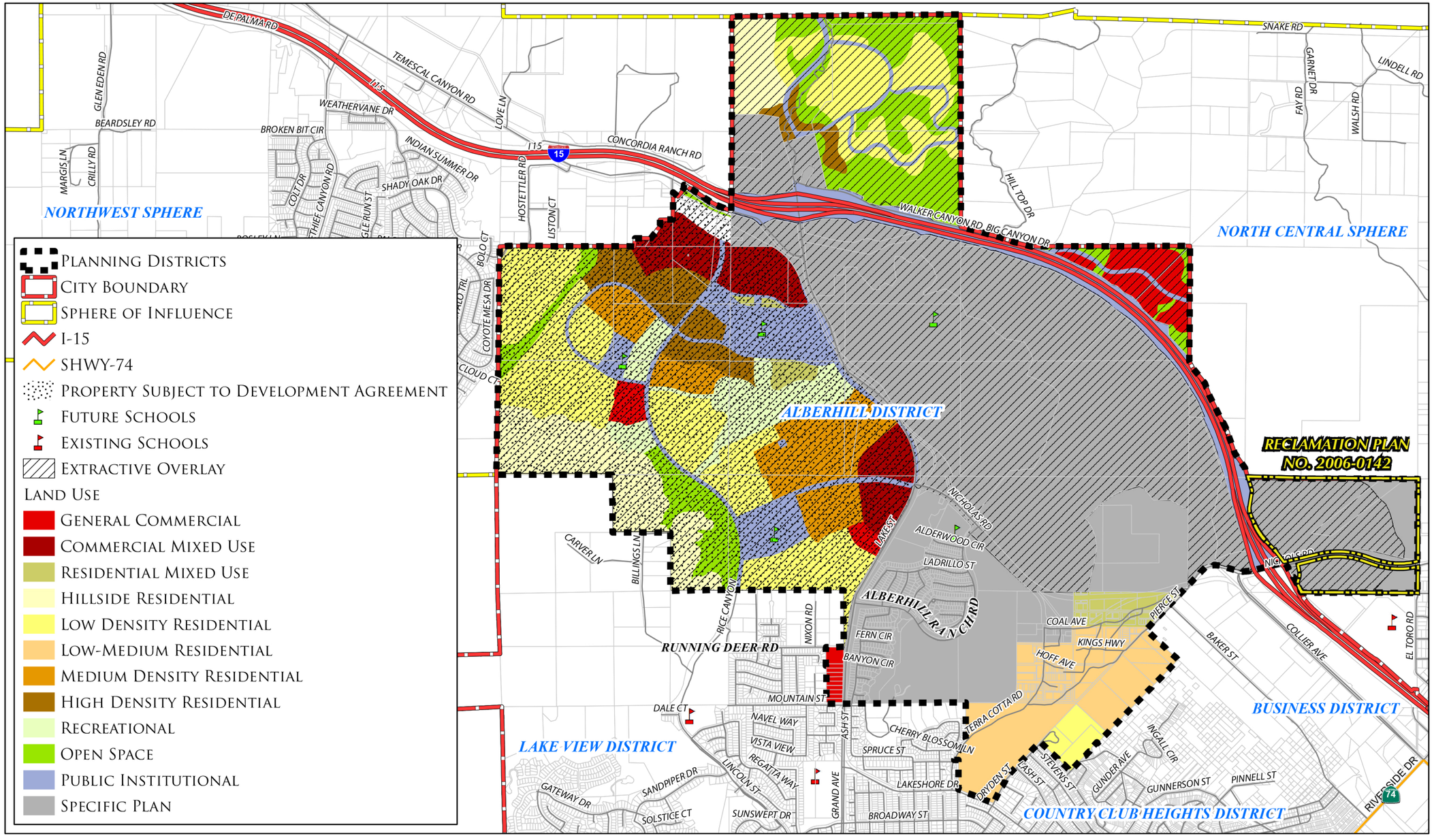
Additionally, the Nichols Canyon Mine lies within the geographical limits of the Alberhill Ranch Specific Plan. The Specific Plan area is located in the north central portion of the City of Lake Elsinore with the majority of the Specific Plan area located west of I-15 with smaller portions of the Specific Plan located east of I-15, including the Nichols Canyon Mine.

2.4 SURROUNDING LAND USES AND DEVELOPMENT

Land uses in the immediate vicinity of the Nichols Canyon Mine are illustrated on Figure 2-2, *Surrounding Land Uses and Development*. As shown on Figure 2-2, located to the north of the Mine are undeveloped lands. To the west is the I-15 freeway, beyond which are open space and existing commercial development. To the south is open space and Temescal Canyon High School, and to the east is open space and single-family homes. The nearest residential home to the Mine's proposed mining and disturbance limits occurs approximately 386 feet to the southeast and the nearest building at the Temescal Canyon High School is located approximately 558 feet south of the Mine's proposed mining and disturbance limits.

2.5 AGGREGATE MINING CONTEXT IN THE TEMESCAL VALLEY PRODUCTION AREA

The Nichols Canyon Mine extracts and exports material that is classified as Portland Cement Concrete (PCC) grade aggregate material. According to the California Department of Conservation, California Geologic Survey (CGS) report titled "Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the Temescal Valley, dated 2014, the Nichols Canyon Mine is located in the near center of the Temescal Valley Production Area, as shown on Figure 2-3, *General Location Map of the Temescal Valley Production Area*. This report is herein incorporated by reference pursuant to CEQA Guidelines § 15150, and is available for review at the City of Lake Elsinore Planning Division, 130 S Main St, Lake Elsinore, CA 92530, as well as on-line at the location indicated in EIR Section 7.0, *References*. (CGS, 2014)



Source(s): City of Lake Elsinore (04-23-2013)

NOT TO SCALE

Figure 2-1

ALBERHILL DISTRICT LAND USE PLAN

Figure 2-2

SURROUNDING LAND USES AND DEVELOPMENT

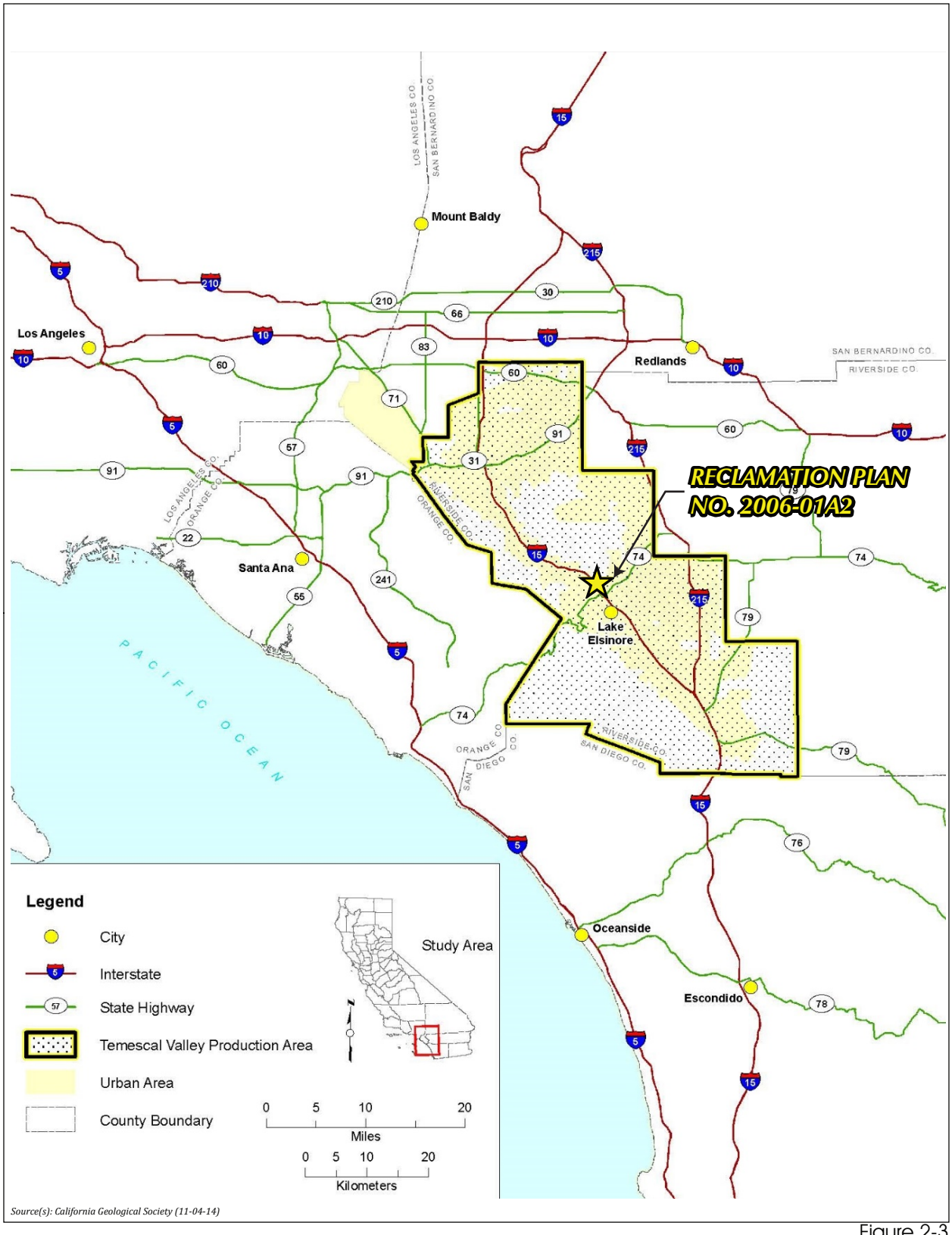


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Figure 2-3
GENERAL LOCATION MAP OF THE TEMESCAL VALLEY PRODUCTION AREA

The Temescal Valley is identified by the State as an important source region for aggregate for much of the eastern part of the Los Angeles Metropolitan Area, the Inland Empire Metropolitan Area, and the northern part of the San Diego Metropolitan Area. Mines in the Temescal Valley Production Area provide aggregate for parts of Los Angeles, Orange, San Bernardino, and San Diego counties, as well as western Riverside County. (CGS, 2014, p. 5)

As shown in Table 2-2, *Projected Aggregate Demand in the Temescal Valley Production Area (2013 – 2062)*, the CGS estimates that the projected aggregate demand based on past production indicates that an estimated 1,057 million tons of aggregate will be needed from the Temescal Valley Production Area through the year 2062, with annual demand increasing from approximately 15,950,000 tons per year in 2015 to an estimated future demand for 27,780,000 tons per year in 2062. (CGS, 2014, p. 22) .

Table 2-2 Projected Aggregate Demand in the Temescal Valley Production Area (2013 – 2062)

YEAR	Projected Aggregate Demand in tons	YEAR	Projected Aggregate Demand in tons
2013	14,404,000	2039	21,502,000
2014	14,677,000	2040	21,775,000
2015	15,950,000	2041	22,048,000
2016	15,223,000	2042	22,321,000
2017	15,496,000	2043	22,594,000
2018	16,769,000	2044	22,867,000
2019	16,042,000	2045	23,140,000
2020	16,315,000	2046	23,412,000
2021	16,588,000	2047	23,685,000
2022	16,861,000	2048	23,958,000
2023	17,134,000	2049	24,231,000
2024	17,407,000	2050	24,504,000
2025	17,680,000	2051	24,777,000
2026	17,953,000	2052	25,050,000
2027	18,226,000	2053	25,323,000
2028	18,499,000	2054	25,596,000
2029	18,772,000	2055	25,869,000
2030	19,045,000	2056	26,142,000
2031	19,318,000	2057	26,415,000
2032	19,591,000	2058	26,688,000
2033	19,864,000	2059	26,961,000
2034	20,137,000	2060	27,234,000
2035	20,410,000	2061	27,507,000
2036	20,683,000	2062	27,780,000
2037	20,956,000	**TOTAL**	**1,056,608,000**
2038	21,229,000		

Note: Aggregate demand figures are rounded to the nearest 1,000 tons.
(CGS, 2014, Table 4)

The total PCC-grade aggregate reserves (i.e. permitted resources) of 917 million tons in the Temescal Valley Production Area are projected to last 44 years (into the year 2057). An important

consideration is that not all aggregate reserves may be minable under the present permits because of operating restrictions or because of expiration dates that may not allow reserves to be completely mined. The CGS found that comparing regional needs to available reserves and resources demonstrates the aggregate resource issues confronting the Temescal Valley Production Area. These include the need to plan carefully for the use of lands containing these resources and the need to consider the permitting of additional aggregate resources in the Production Area before currently permitted deposits are depleted. The CGS indicates that such planning efforts should take into consideration not only the demands of western Riverside County, but also the demands of neighboring regions outside of the County that are currently served by the Production Area. The Temescal Valley Production Area exports a significant amount of its aggregate production to other major market areas in four surrounding counties (Los Angeles, Orange, San Bernardino, and San Diego) and this could increase in the future. (CGS, 2014, pp. 23-24)

Department of Finance estimates show the population for the five-county area containing Los Angeles, Orange, San Bernardino, Riverside and San Diego counties is expected to increase by about 6.5 million people between 2010 and 2060. Of that 6.5 million, Riverside County population is expected to grow by 2 million and San Bernardino by about 1.4 million. Much of the future growth in these two counties will likely occur in the Inland Empire region served by the Temescal Valley Production Area. Growth in Los Angeles, Orange, and San Diego counties is likely to increase demand for aggregate in those areas, creating additional demand for increased exports of aggregate from the Production Area. (CGS, 2014, p. 24)

In addition to regional population growth, other factors may influence future demand for aggregate from the Production Area. If existing aggregate reserves in neighboring regions are depleted and new reserves are not permitted in those regions, then exports from the Temescal Valley Production Area may increase to help fill that demand. Other factors that could increase aggregate demand and accelerate depletion of reserves in the region include large scale construction projects or catastrophic events requiring rebuilding occurring in or near the Production Area. Finally, fluctuations in the economy may either slow or speed up depletion of reserves in the region. (CGS, 2014, p. 24)

Table 2-3, *Summary of Aggregate Resources, Reserves, Projected 50-year Demand, and Depletion Date for the Temescal Valley Production Area*, summarizes the identified aggregate resources and estimated future aggregate demands for the Temescal Valley Production Area. The projected lifespan of the aggregate reserves assumes that mining of these reserves will continue until they are depleted. Should unforeseen events occur, such as massive urban renewal, infrastructure projects, reconstruction in the wake of a disaster, or major economic recession, the demand for concrete aggregate in the Production Area could change considerably, which could alter the lifespan of the aggregate reserves. (CGS, 2014, p. 24)

In summary, and based on available historic production data and the production projection, the Temescal Valley Production Area will need to produce approximately 1,057 million tons of aggregate during the next 50 years. The presently permitted reserves of 917 million tons of PCC-grade aggregate are projected to last until the year 2057 or 44 years from the present. However, because the area supplies aggregate to most of the neighboring regions (about 50% of production in 2012), this projected depletion date could be optimistic. If any of the neighboring regions deplete their reserves in less than 50 years, then the exports to that region from the Temescal Valley Production Area may increase. Projected population growth in the Temescal Valley area and the

surrounding regions in the next 50 years is also likely to increase the future demand for aggregate from the Production Area. Also, if a large scale construction project or catastrophic event requiring rebuilding occurs in or near the Production Area, existing reserves may be depleted sooner than projected. (CGS, 2014, p. 24)

Table 2-3 Summary of Aggregate Resources, Reserves, Projected 50-year Demand, and Depletion Date for the Temescal Valley Production Area

Estimated PCC-grade Aggregate Resources	2,198 Million Tons
PCC-grade Aggregate Reserves (Permitted Resources)	917 Million Tons
Projected 50-Year Demand for PCC-grade Aggregate	1,057 Million Tons
Estimated Years Until Depletion of Current PCC-grade Aggregate Reserves	44 Years
Estimated Depletion Date of PCC-grade Aggregate Reserves	2057

(CGS, 2014, Table 5)

2.6 LOCAL PLANNING CONTEXT

This Subsection provides a description of the subject property's land use designations, as applied by planning documents adopted by the City of Lake Elsinore, as discussed below.

2.6.1 CITY OF LAKE ELSINORE GENERAL PLAN

The City of Lake Elsinore's prevailing planning document is its General Plan, adopted December 13, 2011. As depicted on Figure 2-4, *Existing General Plan Land Use Designations*, the General Plan land use designation for the property is Specific Plan with Extractive Overlay. As discussed in Subsection 2.3, the Mine site is located within the Alberhill Ranch Specific Plan. Alberhill Ranch Specific Plan Amendment No. 3 (SPA No. 3) designates the property as Commercial-Specific Plan (C-SP) and Open Space (OS). The C-SP designation is intended to accommodate mixed use development projects with a freeway orientation. The OS designation is intended for retention of the hillside area as natural open space for habitat preservation and associated uses and utilities. (Lake Elsinore, 1997, p. 2) In addition, the "Extractive Overlay" designation "…provides for continued operations of extractive uses, such as aggregates, coal, clay mining, and certain ancillary uses." (Lake Elsinore, 2011a, Figure 2.1A and p. 2-18)

2.6.2 ZONING

The zoning of the Nichols Canyon Mine property is governed by the approved Alberhill Ranch Specific Plan. The Alberhill Ranch Specific Plan designates the property for Open Space (OS) and

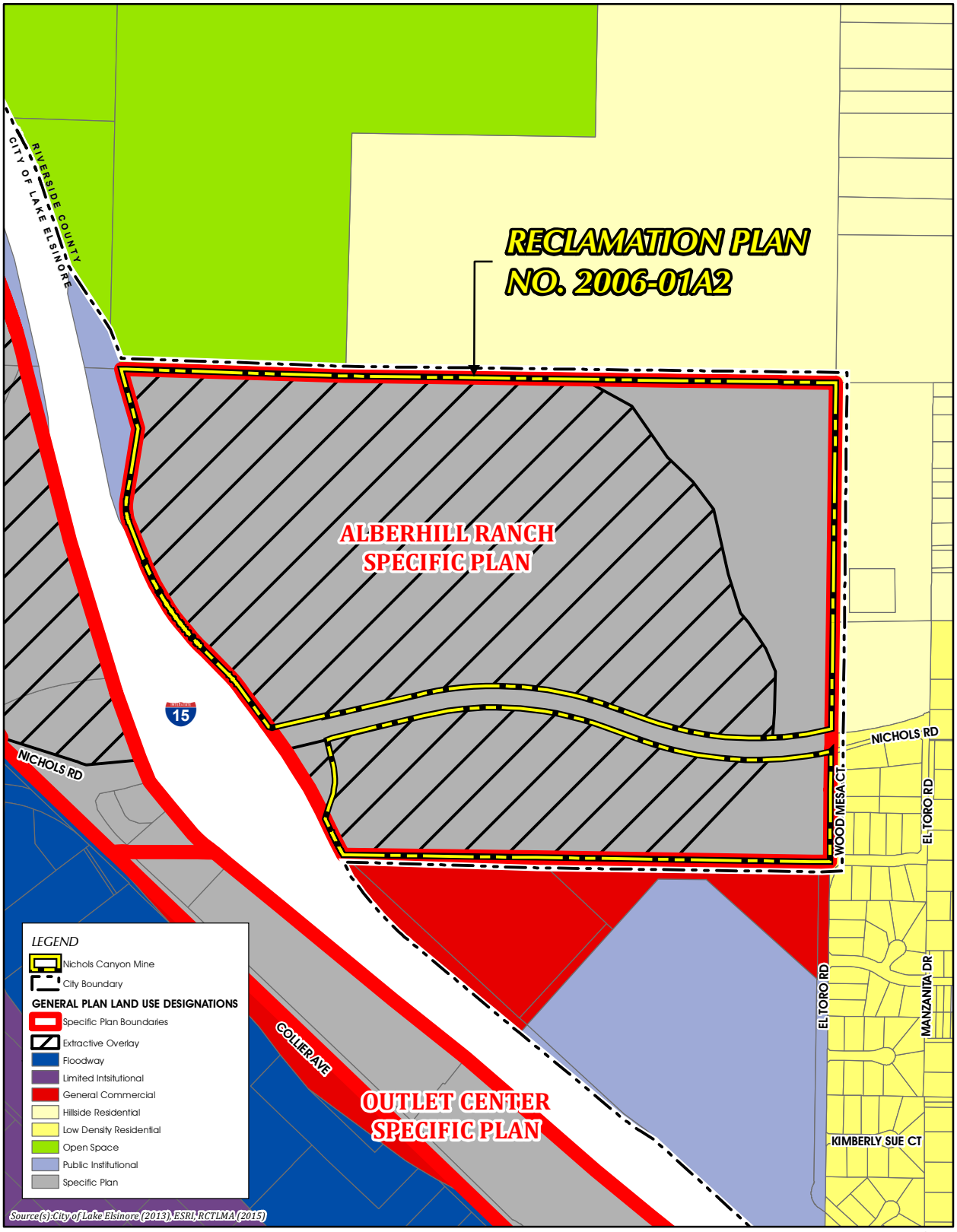

Figure 2-4

EXISTING GENERAL PLAN LAND USE DESIGNATIONS

Commercial-Specific Plan (C-SP) land uses. As discussed above in Subsection 2.6.1, the C-SP designation is intended to accommodate mixed use development projects while the OS designation is intended for retention of the hillside area as natural open space for habitat preservation and associated uses and utilities. (Lake Elsinore, 1997, p. 2)

2.7 EXISTING PHYSICAL SITE CONDITIONS

As discussed in Subsection 2.1, the existing setting is defined as the physical condition of the Nichols Canyon Mine site and surrounding area at the approximate date this EIR's NOP was released for public review (June 25, 2015). The following subsections provide a description of the property's physical environmental conditions as of that approximate date. More information regarding the proposed Project's environmental setting is provided in the various subsections of EIR Section 4.0, *Environmental Analysis*.

2.7.1 LAND USE

The Nichols Canyon Mine comprises approximately 199 acres of land and is a vested mining site. A vested mining right is the right to conduct a legal nonconforming use of real property if that right existed lawfully before a zoning or other land use restriction and the use is not in conformity with that restriction when it continues thereafter. In the surface mining context, vested mining rights extend to the area of mine operations, the depth of mine operations, the nature of the mining activity, the type of material mined, and the production level. Importantly, vested mining rights allow a mine operator to expand mining operations over time across a vested property. This is known as the "diminishing asset" doctrine. (See *Hansen Brothers Enterprises, Inc. v. Board of Supervisors* (1996) 12 Cal.4th 533; Cal. Code Regs., tit. 14, § 3951.).

The entire 211-acre Mine site is subject to vested mining rights, as the City has previously recognized. Mine operations are not currently subject to any City surface mining permit, and no such permit is required to undertake the expanded operations proposed as part of this Project. However, in response to comments received during the scoping process for this EIR, the City has requested and the project applicant has agreed to apply for a surface mining permit notwithstanding the Mine's vested status in order to more clearly define and condition the activities proposed as part of the Project. In agreeing to apply for a surface mining permit, the project applicant expressly does not waive and reserves all vested mining rights at the Mine to the fullest extent under the law.

Under existing conditions, approximately 116 acres of the Mine are currently used for mining activities. The Nichols North site comprises approximately 156 acres and the Nichols South site comprises approximately 43 acres. Under existing conditions, areas that were previously subject to mining on the Nichols North site contain stockpiles, dirt roadways, and processing equipment, while the upper elevations of the hillsides are undisturbed and primarily consist of sagebrush associations. Under existing conditions the Nichols South site consists of a mostly disturbed site where overburden has been removed and much of the area is subject to regular disking as part of on-going fire abatement activities, with a drainage (Stovepipe Creek) traversing the southeastern portion of the Nichols South site. Temporary and mobile ancillary lighting occurs on-site in support of evening operations.

The Nichols Canyon Mine is designated for "Open Space/Manufactured Slopes (OS)" and "Commercial-Specific Plan (C-SP)" land uses by the Alberhill Ranch Specific Plan (Lake Elsinore, 1997, Exhibit 3). In addition, the City's General Plan Land Use Plan applies an "Extractive Overlay" designation to a majority of the Mine (including the EDA), which "…provides for continued operations of extractive uses, such as aggregates, coal, clay mining, and certain ancillary uses" (Lake Elsinore, 2011a, Figure 2.1A and p. 2-18).

2.7.2 SITE TOPOGRAPHY

Figure 2-5, *USGS Map*, depicts the topography on-site The Nichols Canyon Mine property consists of a surface mine and undisturbed vacant property. Elevations on-site range from 1,920 feet above mean sea level (amsl) in the northeastern portions of Nichols North to 1,280 feet amsl in the western portions of Nichols South. Under existing conditions, areas that were previously subject to mining on the Nichols North site contain stockpiles, dirt roadways, and processing equipment, while the upper elevations of the hillsides are undisturbed. The Nichols South site consists of a mostly disturbed site where overburden has been removed and much of the area is subject to regular disking as part of on-going fire abatement activities, with a drainage (Stovepipe Creek) traversing the southeastern portion of the Nichols South site. The Project's proposed 24-acre expanded disturbance area (EDA) is generally undeveloped hillside land formed in bedrock terrain that includes surface rock outcrops. The EDA is dissected by a southwest-trending ravine and smaller drainages to the southeast. The topography rises in elevation from southwest to northeast and is formed in a crystalline bedrock unit of the Perris Structural Block. Natural slopes generally slope at angles less than 30 degrees; however, locally steeper slopes are present in drainages and within and near bedrock outcrops. (CHJ Consultants, 2015, p. 3)

2.7.3 AESTHETICS FEATURES

Open space occurs to the immediate north, south, and east of the Nichols Canyon Mine and I-15 is located to the west of the Mine site. Nichols North and Nichols South are partially visible from sections of Nichols Road which divides Nichols North and Nichols South. Berms are located on the western boundary of the Nichols Canyon Mine which partially obstruct views of the Mine site from I-15. The Nichols Canyon Mine site is not visible from any state-designated scenic highway corridor. However, the Mine site is located adjacent and to the east of I-15, which is identified as a "State Eligible" scenic highway (Riverside County, 2003a, Figure C-9). SR-74, located approximately 1.4 miles south of the Nichols Canyon Mine, also is designated as a "State Eligible" scenic highway, although the Mine is not prominently visible from SR-74 due to distance, intervening development, and topography (Caltrans, 2011; Google Earth, 2015).

Refer to EIR Subsection 4.1, *Aesthetics*, for a more thorough discussion of the Project site's existing aesthetic setting.

2.7.4 AIR QUALITY AND CLIMATE

The Nichols Canyon Mine is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, the San Jacinto Mountains to the north and east, and San Diego County to the south. The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency

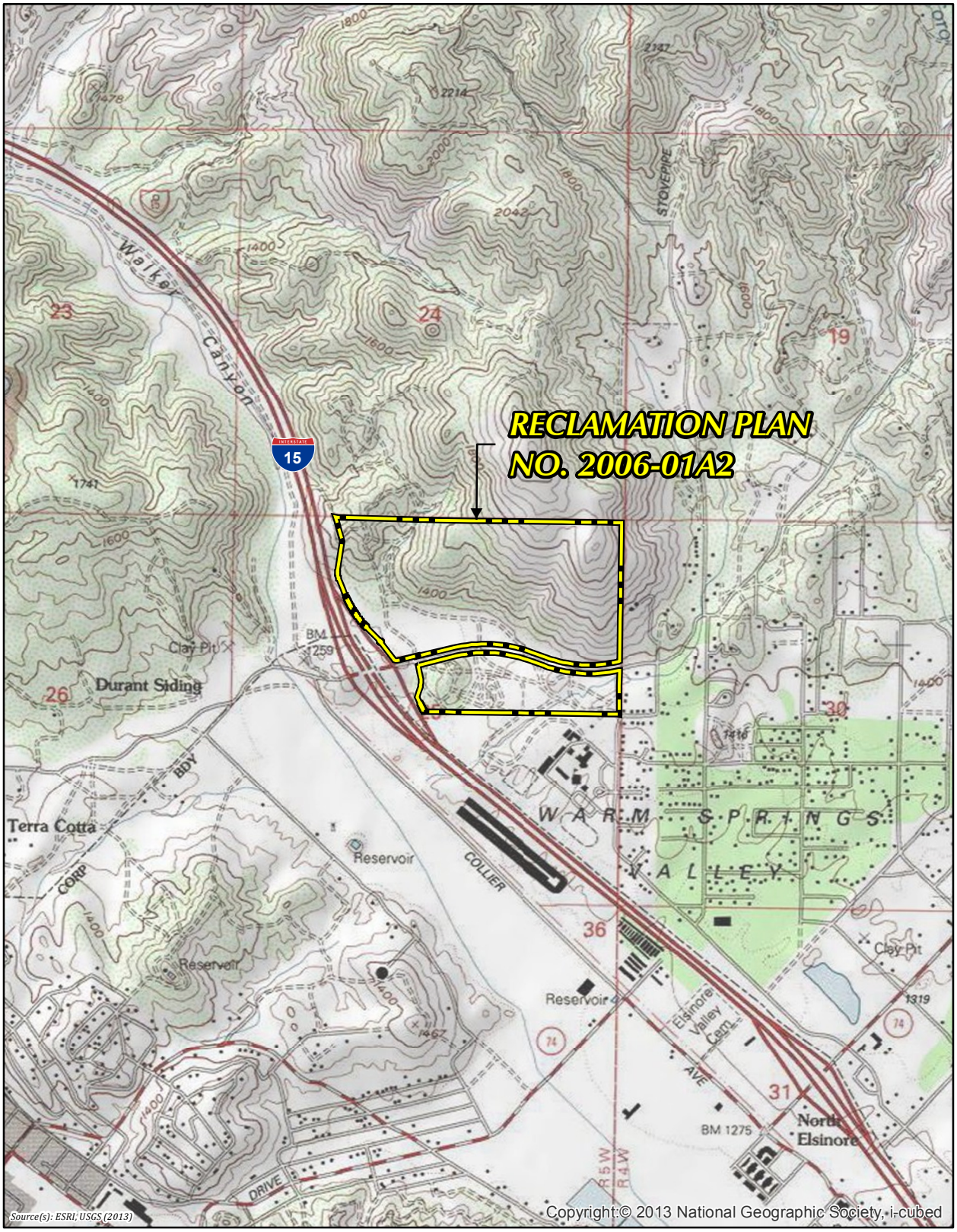

Figure 2-5

USGS MAP

charged with bringing air quality in the SCAB into conformity with federal and state air quality standards. Although the climate of the SCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Ana[s]" each year. (Urban Crossroads, 2015a, pp. 6-7)

The SCAB is a non-attainment area for various state and federal air quality standards including ozone (O_3), Inhalable Particulates (PM_{10}) and Ultra-Fine Particulates ($PM_{2.5}$) (CARB, 2014). The SCAQMD conducts in-depth analysis of toxic air contaminants and their resulting health risks for all of Southern California and compiles the data in a study, entitled, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV).* Mates IV predicts an estimated lifetime carcinogenic risk of 164.08 per one million for the vicinity of the Nichols Canyon Mine site. (SCAQMD, 2015)

Under existing conditions the Mine emits air pollutants from the mining and processing equipment utilized on-site and from the vehicles traveling to and from the Mine site. The Nichols Canyon Mine is subject to a SCAQMD Permit to Operate (PTO; Permit No. G32437 A/N 562763). The PTO imposes standard conditions of approval on activities at the Mine, and prohibits on-site equipment from processing more than 149,970 tons of aggregate per month (or approximately 5,500 to 6,000 tons per working day).

Refer to EIR Subsection 4.2, *Air Quality* and Subsection 4.6, *Greenhouse Gas Emissions*, for a more thorough discussion of the existing air quality and climate setting.

2.7.5 BIOLOGICAL SETTING

Under existing conditions, approximately 116 acres of the 199-acre Nichols Canyon Mine are actively used for mining operations. Riversidean sage scrub, non-native grassland, and disturbed habitat are the predominant vegetation communities present in areas of the Mine site that are not currently in active mine operations. Riversidean sage scrub and non-native grasslands are considered to be sensitive habitat communities. The disturbed habitat on the Mine site is not considered sensitive habitat. Stovepipe Creek flows in a southwesterly direction on the southern portion of the Mine site and is mapped as a United States Geologic Survey (USGS) blue line stream. On the northern portion of the Mine site are three distinct north-south running unvegetated drainages. (Alden, 2015, pp. 2 and 5)

The Nichols Canyon Mine site is located within the Elsinore Area Plan of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). According to the City of Lake Elsinore General Plan Update (GPU) EIR Figure 3.8-1, *City of Lake Elsinore MSHCP Designations*, the Nichols Canyon Mine is located within a MSHCP Criteria Area. (Lake Elsinore, 2011b, Figure 3.8-1) Specifically, the MSHCP identifies the Mine site as occurring within Cell Group W (Cells 4067 and 4070) of the Elsinore Area Plan. The Conservation Criteria for Cell Group W is to achieve conservation of 80%-90% of the Cell Group, focusing on the northwestern portion of the Cell Group. The MSHCP also identifies the Mine site as occurring within the Burrowing Owl Survey Area. (Riverside County, 2015) However, in 2004, the owners of the Nichols Canyon Mine, along with

other landowners, entered into a Settlement Agreement and Memorandum of Understanding ("Agreement") with the County of Riverside which, among other issues, explicitly exempted the Nichols Canyon Mine from all provisions of the MSHCP. As a result of the Agreement, the MSHCP does not apply to the Project site.

Refer to EIR Subsection 4.3, *Biological Resources,* for a more thorough discussion of the Project site's existing biological setting.

2.7.6 GEOLOGY

The Nichols Canyon Mine is located in the northern portion of the Peninsular Ranges Province (Lake Elsinore, 2011b, 3.11-1). Faults and Fault Zones that underlie the City of Lake Elsinore include the San Andreas Fault, Elsinore Fault Zone, Strands of the Elsinore Fault, Wildomar Fault, Glen Ivy South, Glen Ivy North, San Jacinto Fault, Laguna Salada Fault Zone, Whittier Fault, and the Chino Fault (Lake Elsinore, 2011b, Table 3.11-1) Within the Elsinore Fault Zone, the Glen Ivey North segment is the nearest active major fault, located approximately 1.8 miles to the southwest, the southern segment of the northwest-trending Chino-Central Avenue fault is located approximately 22 miles to the northwest, and the west-to northwest-trending Whittier fault is located approximately 23 miles northwest of the Mine site. (CHJ, 2015, pp. 8-9) According to Riverside County GIS, the Nichols Canyon Mine site is not mapped in an Alquist-Priolo Fault Zone and no known fault zones underlie the property. (RCIT, 2015) Refer also to the discussion in Section 2.5, above, for a discussion of mineral resources within the Temescal Valley Production Area.

Refer to EIR Subsection 4.5 *Geology and Soils*, for a more thorough discussion of the Project site's existing geologic setting.

2.7.7 HYDROLOGY AND WATER QUALITY

The Nichols Canyon Mine site is located within the Lee Hydrologic Subarea of the Lake Mathews Hydrologic Area of the Santa Ana River Hydrologic Unit (Bonadiman, 2015, p. 4). Under existing conditions, runoff from the western, disturbed portions of the Nichols Canyon North site flows in a southwesterly direction into an on-site retention basin at the southwest corner of Nichols North. The Nichols North site is graded to capture and retain on-site all surface flows within the western portions of the site. The eastern and northern portions of the Nichols North site, as well as the majority of the Nichols South site, also flow in a southwestern direction via Stovepipe Creek and to the west beneath I-15 via an existing culvert beneath I-15. A small portion of the runoff from the northern portions of the Nichols South site is conveyed northerly into a swale located along the northern edge of Nichols Road. (Bonadiman, 2015, Exhibit G)

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) that cover the area of the Nichols Canyon Mine site, the majority of the Mine site is located in an unshaded "Zone X," identified by FEMA as an area determined to be outside the 0.2% (500-year) annual chance of flood. The portion of the Nichols South site which is located along Stovepipe Creek is located in a shaded "Zone A," identified by FEMA as an area determined to be subject to 1% annual chance of flood with no base flood elevations determined. (Bonadiman, 2015, p. 8)

2.7.8 NOISE

Primary sources of noise in the Project site's vicinity include vehicular noise on nearby roads. Under existing conditions, noise is emitted from on-site machinery, blasting, and vehicular traffic. The proposed disturbance limits at the Nichols Canyon Mine site occur approximately 414 feet from the nearest residential home, located southeast of the Mine along Wood Mesa Court. The nearest building at the Temescal Canyon High School is located approximately 610 feet from the Mine's existing and proposed disturbance limits. The Project's noise consultant (Hans Giroux and Associates [HGA]) collected baseline noise measurements at the far southwest and southeast corners of the fence line surrounding the existing Nichols Canyon Mine site. The observed noise levels near I-15 were continuous and loud and noise levels along Nichols Road east of I-15 were observed to be sporadic and quiet except from a few passing cars. Short-term noise measurements were conducted mid-day on July 21, 2014. Operating conditions on this day, including Mine-related noise, were characteristic of typical daily operations. Measurements ranged from 53 equivalent-level decibels (Leq.) at the southwest corner to 68 Leq at the southeast corner of the fence line surrounding the Nichols Canyon Mine site. (Giroux, 2015, p. 2)

Refer to EIR Subsection 4.9, *Noise*, for a more thorough discussion of the Project site's existing noise environment.

2.7.9 TRANSPORTATION AND CIRCULATION

Major travel routes in the vicinity of the Nichols Canyon Mine site include I-15 which abuts the Mine's western boundary, SR-74, located approximately 1.0 mile to the south, I-215, located approximately 9.1 miles to the east, and SR-91, located approximately 16.8 miles to the north of the Mine site. Under existing conditions, access to the Nichols Canyon Mine is provided from Nichols Road via two driveways on the North Nichols site and two driveways on the South Nichols site.

Under existing conditions, the Mine produces approximately 16 passenger car trips and 260 truck trips (total Project trips based on typical peak operating day of 5,000 tons per day (tpd)) , which together constitute 276 baseline daily trips. Based on a passenger-car equivalent (PCE) of 3.0 PCE per truck, the Mine site produces 795 daily PCE trips per day. (Urban Crossroads, 2015d, Table 4-5)

Refer to EIR Subsection 4.10, *Transportation and Circulation*, for a more thorough discussion of the Project site's existing transportation and circulation setting.

2.7.10 UTILITIES AND SERVICE SYSTEMS

Water used on-site for dust control and aggregate processing is obtained from the Elsinore Valley Municipal Water District (EVWMD). Based on historical data for the Mine between 2007 and 2014, the water usage on-site averaged approximately 64,000 gallons per day for dust control. (Project Applicant, 2015b)

Under existing conditions, wastewater treatment at the Nichols Canyon Mine is handled by portable toilets, which are regularly emptied by a rental service company. Waste from these portable toilets is disposed of in accordance with all applicable regulatory requirements.

Refer to EIR Subsection 4.11, *Utilities and Service Systems*, for a more thorough discussion of the Project site's existing utilities and service systems.