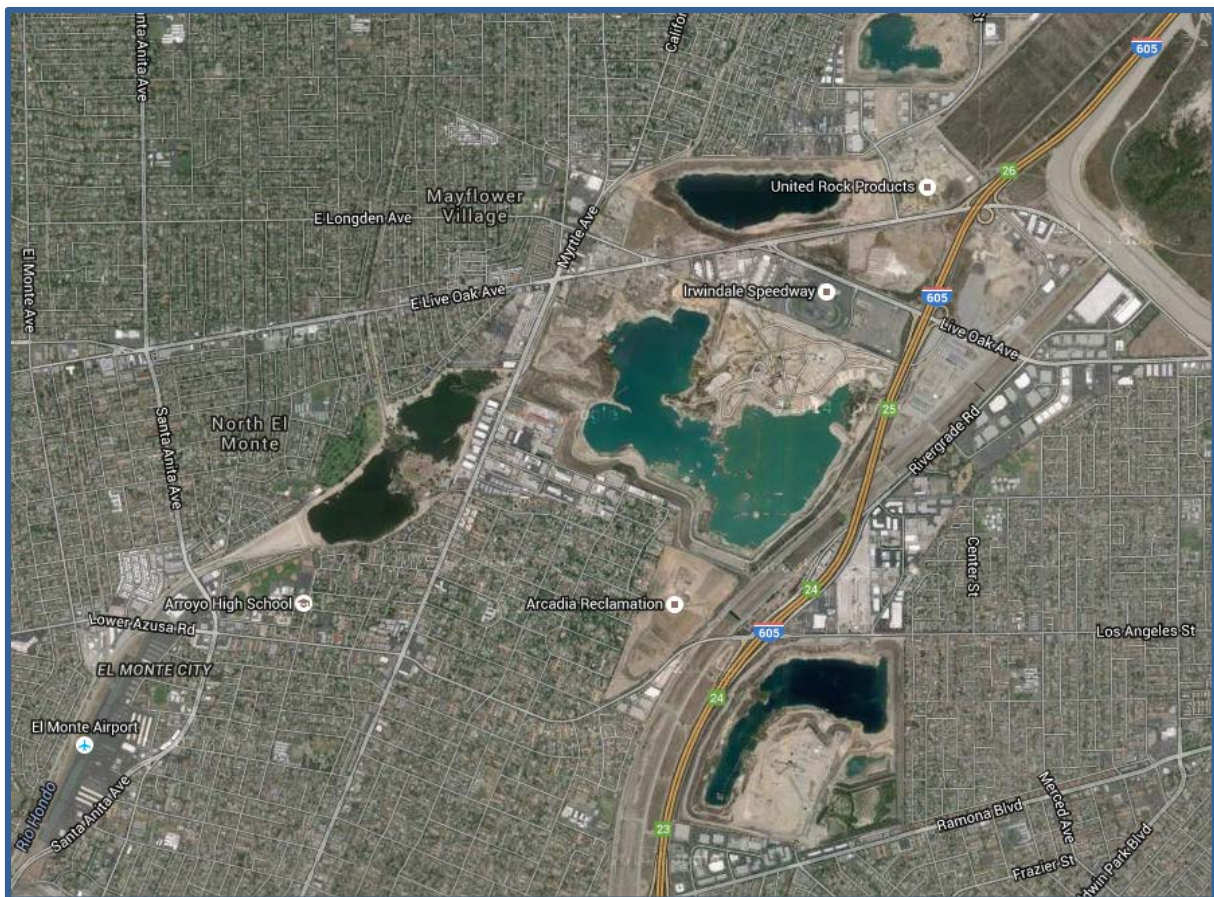




SMGB Designation Report No. 12

STATE MINING AND GEOLOGY BOARD

Updated Designation of Regionally Significant Aggregate Resources In the San Gabriel Valley Production-Consumption Region, Los Angeles County



Department of Conservation
Natural Resources Agency

April 2014

This Designation Report No. 12
by the State Mining and Geology Board
was prepared with assistance from the
California Department of Conservation California Geological Survey

Cover: Portion of City of Irwindale showing several active open pit
surface mining operations and surrounding development.
(Courtesy of Google Maps, 2015).

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**Updated Designation of
Regionally Significant Aggregate Resources
In the San Gabriel Valley Production-Consumption Region,
Los Angeles County**

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**Updated Designation of
Regionally Significant Aggregate Resources
In the San Gabriel Valley Production-Consumption Region,
Los Angeles County**

Stephen M. Testa
Executive Officer
State Mining and Geology Board

EXECUTIVE SUMMARY

Designation is the formal recognition by the State Mining and Geology Board (SMGB) of lands containing mineral resources of regional or statewide economic significance that are needed to meet the demands of the future. At its October 9, 2010, regular business meeting, the SMGB accepted California Geological Survey (CGS) Special Report 209 (SR 209) titled "*Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the San Gabriel Valley Production-Consumption Region, Los Angeles County*" (Kohler, 2010). This report updated information on Portland cement concrete (PCC) aggregate presented in the original classification study of the San Gabriel Valley Production-Consumption (P-C) Region published in 1982 as Special Report 143, Part IV - *Mineral Land Classification of the Greater Los Angeles Area; Classification of Sand and Gravel Resource Areas, San Gabriel Valley Production-Consumption Region* (Kohler, 1982).

In the years since the designation of the San Gabriel Valley P-C Region, about 27 percent, or 1,234 acres of the 4,642 acres of lands originally designated by the SMGB have been lost to land uses incompatible with mining. Those 1,234 acres lost contain approximately 483 million tons of PCC-grade aggregate resources, which is 20 percent of the 2,402 million tons of aggregate resources designated in 1984. The updated Mineral Land Classification study identified an additional 305 acres of land containing more than 311 million tons of PCC-grade aggregate in areas previously classified MRZ-3. As part of the update, these areas were reclassified as MRZ-2.

The administrative process associated with designation commenced with the SMGB accepting the recommendations of the State Geologist for designation, and termination of designation, of certain candidate areas. Each candidate area was considered by the SMGB for designation as an area of regional significance, and for termination of previously designated status. Other areas such as Sectors J, K, L, and M, were newly identified aggregate resource sectors that were not originally designated. Sector J delineated land that has been reclassified in Open File Report (OFR) 91-14 to MRZ-2 from MRZ-3 (Miller, 1994). Sectors K, L, and M delineated lands that were classified MRZ-2 in SR 143 Part IV, but were not included in part of a sector. Previously designated areas that were deemed incompatible for mining were also considered for termination.

The SMGB accepted the State Geologist's recommendations to designate these areas at its regular business meeting held on March 10, 2011. Following acceptance, the 60-day public comment period commenced on July 29, 2011, and ended on September 26, 2011. In addition, a public hearing was held in the City of Irwindale on August 30, 2011. No comments were received during this comment period.

The SMGB subsequently adopted the regulatory language for the designation of mineral lands of regional significance in the San Gabriel Valley P-C Region at its regular business meeting held on December 13, 2012, and directed the Executive Officer to proceed with the 45-day notice to adopt proposed regulations which would amend Section 3550.5 of Title 14, Article 2, of the California Code of Regulations (CCR), and provide a description of the locations of mineral resource areas designated to be of regional significance. The new regulations were enacted and became effective on January 1, 2014.

INTRODUCTION

Portland cement is the basic ingredient of concrete and the most common type of cement used worldwide. Concrete is formed when portland cement creates a paste with water that binds with sand and rock to harden. Cement is manufactured through a closely controlled chemical combination of calcium, silicon, aluminum, iron and other ingredients. Common materials used to manufacture cement include limestone, shells, and chalk or marl combined with shale, clay, slate, blast furnace slag, silica sand, and iron ore. These ingredients, when heated at high temperatures form a rock-like substance that is ground into the fine powder that we commonly think of as cement.

Sand, gravel, and crushed rock, collectively referred to as aggregate, provides bulk and strength to PCC, in addition to asphaltic concrete (AC), Class II Base, and other grades of aggregate and commodities. Because material specifications for PCC-grade aggregate are more restrictive than specifications for other grades of aggregates, such deposits for use as PCC aggregate are the scarcest and most valuable of aggregate resources.

The value of PCC aggregates is reflected in PRC Section 2711, which states *“the production and development of local mineral resources that help maintain a strong economy and that are necessary to build the state’s infrastructure are vital to reducing transportation emissions that result from the distribution of hundreds of millions of tons of construction aggregates that are used annually in building and maintaining the state.”* Also recognized is *“the need of the state to provide local governments, metropolitan planning organizations, and other relevant planning agencies with the information necessary to identify and protect mineral resources within general plans”,* and *“that the state’s mineral resources are vital, finite, and important natural resources and the responsible protection and development of these mineral resources is vital to a sustainable California.”*

Designation is the formal recognition by the SMGB of lands containing mineral resources of regional or statewide economic significance that are needed to meet the demands of the future. At its October 9, 2010, regular business meeting, the SMGB accepted CGS SR 209 titled *“Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the San Gabriel Valley Production-Consumption Region, San Gabriel and Riverside Counties, California* (Kohler, 2010). This report updated information on PCC aggregate presented in the original classification study of the San Gabriel Valley P-C Region published in 1982 as Special Report 143, Part IV - *Mineral Land Classification of the Greater Los Angeles Area; Classification of Sand and Gravel Resource Areas, San Gabriel Valley Production-Consumption Region* (Kohler, 1982).

The original classification study by Kohler (1982) assisted the SMGB in its subsequent mineral land designation process; whereby, the SMGB formally recognized in regulation lands containing resources of regional or statewide economic significance in the region. The SMGB designated construction aggregate resource areas of regional significance in

the San Gabriel Valley P-C Region and published such action in their SMARA Designation Report No. 3 - *Designation of Regionally Significant Construction Aggregate Resources in the Orange County - Temescal Valley and San Gabriel Valley Production-Consumption Regions* (August, 1984).

This report (SMARA Designation Report 12) documents the designation process and describes the changes to the previous (1984) designation of the San Gabriel Valley P-C Region in response to new data presented in CGS SR 209. This report does not alter the previous designation of the Orange County-Temescal Valley P-C Region described in SMARA Designation Report No. 3. The updated designation, and termination of designation, of lands in the San Gabriel Valley P-C Region is shown on Plates 1 and 2 of this report.

THE CLASSIFICATION - DESIGNATION PROCESS

The rapid growth of many California communities, particularly during the past several decades, has served to emphasize the continuing importance of mineral resource conservation as a land-use issue. To support the maintenance of existing community infrastructure, and state infrastructure, adequate supplies of a variety of mineral commodities must be available. Urban expansion, however, has been a major cause of a decline in the availability of many important minerals. In many areas, for example, pressure from competing land use has severely reduced or completely eliminated access to available construction mineral resources such as sand and gravel. This includes local permitting of land uses incompatible with mining activities. Land set aside for species and habitat conservation has also taken a significant toll in reducing access to mineral resources.

The Surface Mining and Reclamation Act (SMARA) was passed by the California State Legislature in response to the loss of significant mineral resources due to urban expansion, the need for current information concerning the location and quantity of essential mineral deposits, and to ensure adequate reclamation of mined lands. To address mineral resource conservation, SMARA mandates a two-phase process known as *Classification-Designation*.

The objective of the Classification-Designation process is to ensure, through appropriate local lead agency policies and procedures, that mineral materials will be available when needed and do not become inaccessible as a result of inadequate information during the land-use decision-making process. This objective is addressed first by providing local agency decision makers with information on the location, need and importance of mineral resources within their respective jurisdiction and second by ensuring that this information will be considered in local land-use planning decisions by lead agency adoption of local mineral resource management policies (MRMP).

Classification

During the first phase of this process, known as classification, the State Geologist is responsible for preparing a geological inventory of selected mineral commodities within a defined study region. The State Geologist classifies land solely on the basis of geologic factors and without regard to existing land use or land ownership.

SR 143, Part IV and SR 209 were prepared by the State Geologist as specified SMARA. Areas subject to mineral land classification studies are divided by the State Geologist into various Mineral Resource Zone (MRZ) categories that reflect varying degrees of mineral resource potential. In both of these reports the nomenclature for mineral land classification consisted of four categories – MRZ-1, MRZ-2, MRZ-3, and MRZ-4, as noted below and presented in Figure 1:

- MRZ-1:** Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic-geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.
- MRZ-3:** Areas containing known or inferred mineral occurrences of undetermined mineral resource significance.
- MRZ-4:** Areas where available information is inadequate to assign any other classification.

In the San Gabriel Valley P-C Region, only PCC-Grade construction aggregate resources were classified.

The SMGB guidelines also require that classification reports for construction aggregate resources include the following additional information: (1) the location and estimated total quantity of construction aggregate in areas with land-uses compatible with potential mining; (2) limits of the market area that these potential resources would supply; and (3) an estimate of the total quantity of aggregate material that will be needed to supply the area for the next 50 years.

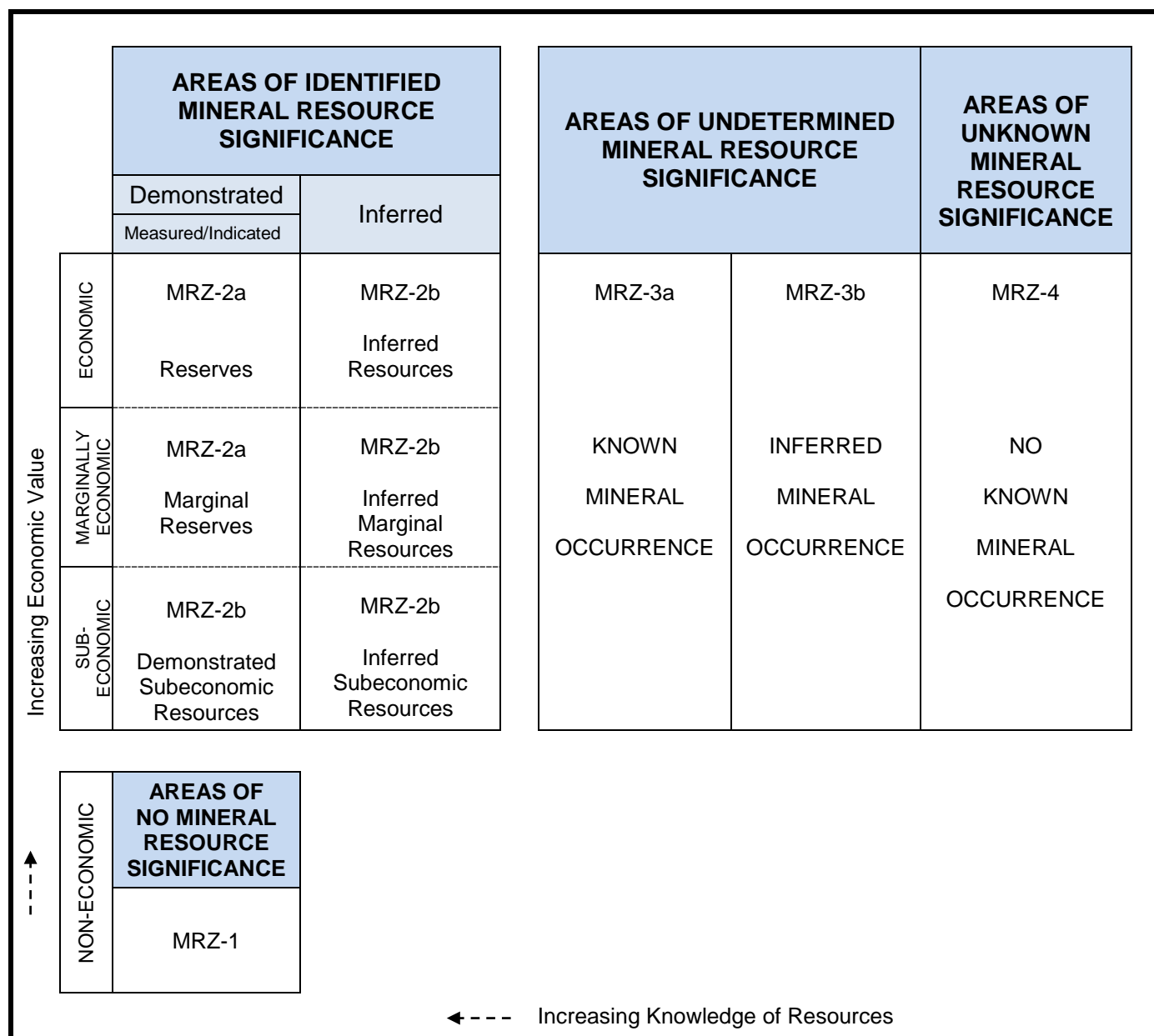


Figure 1. Relationship of MRZ categories to the resource/reserve classification system
(Adapted from U.S. Bureau of Mines/United States Geological Survey, 1980).

In many regions, large portions of the areas classified as MRZ-2 are already committed to various urban uses which limit or prohibit access to underlying resources. As an aid to local planning agencies, classification reports prepared for metropolitan areas also identify MRZ-2 areas that have not been urbanized. These non-urbanized areas, called resource sectors, are areas judged to contain a significant deposit of construction quality aggregate that is available, from a general land-use perspective, to meet future needs (50 years) of the region. In other words, areas currently permitted for mining and areas found to have land uses compatible with possible mining are identified as sectors.

The areas identified as sectors by the State Geologist are candidates for designation by the SMGB.

Designation

Once a classification report, or updated classification report, has been completed, the SMGB may choose, based on recommendations from the State Geologist, to proceed with the second step in SMARA's mineral land identification process, known as designation. As part of this process, the SMGB considers designating those deposits that are of regional or statewide economic significance. In other words, deposits which are of economic significance beyond the boundary of the jurisdiction in which the deposits occur. In contrast to classification, which inventories mineral deposits without regard to land use or land ownership, the purpose of designation is to identify those deposits that are potentially available from a land-use perspective, and are of prime importance in meeting future needs of the region or the state. Areas considered for designation are those deposits situated within the resource sectors.

LEAD AGENCY RESPONSIBILITIES

General Plan Recognition

Classification and designation reports are transmitted to the appropriate affected agency (county and/or city). Within 12 months of the receipt of this information, local lead agencies are required by PRC Section 2762(a) to establish mineral resource management policies (MRMP) in their general plans. The MRMP 1) recognize the mineral information classified by the State Geologist and transmitted to the SMGB; 2) assist in the management of land use that affects areas of statewide and regional significance (designated areas); and 3) emphasize the conservation and development of identified mineral deposits. Every lead agency is required to submit proposed MRMP to the SMGB for review and comment prior to adoption. Any subsequent amendment of the MRMP previously reviewed by the SMGB shall also require review and comment by the SMGB.

If an area is classified by the State Geologist, and the lead agency either has designated that area in its general plan as having important minerals to be protected, or otherwise has not yet acted, the lead agency has certain responsibilities. Prior to permitting a use which would threaten the potential to extract minerals in that area, the lead agency shall prepare, in conjunction with preparing any environmental document required by Division 13 (commencing with Section 21000), or in any event if no such document is required, a statement specifying its reasons for permitting the proposed use, and shall forward a copy to the State Geologist and the board for review.

If the proposed use is subject to the requirements of Division 13 (commencing with Section 21000), the lead agency shall comply with the public review requirements of that division. Otherwise, the lead agency shall provide public notice of the availability of its statement by 1) publishing the notice at least one time in a newspaper of general circulation in the area affected by the proposed use, and 2) directly mailing the notice to owners of property within

one-half mile of the parcel or parcels on which the proposed use is located as those owners are shown on the latest equalized assessment role.

The public review period shall not be less than 60 days from the date of the notice and shall include at least one public hearing. The lead agency shall evaluate comments received and shall prepare a written response. The written response shall describe the disposition of the major issues raised. In particular, when the lead agency's position on the proposed use is at variance with recommendations and objections raised in the comments, the written response shall address in detail why specific comments and suggestions were not accepted.

Prior to permitting a use which would threaten the potential to extract minerals in an area classified by the State Geologist as an area containing mineral deposits but the significance of which requires further evaluation, the lead agency may cause to be prepared an evaluation of the area in order to ascertain the significance of the mineral deposit located therein. The results of such evaluation shall be transmitted to the State Geologist and the SMGB.

PRC Section 2763 notes that if an area is designated by the SMGB as an area of regional significance, and the lead agency either has identified that area in its general plan as having important minerals to be protected pursuant to PRC Section 2762(a), or otherwise has not yet acted pursuant PRC Section 2762(a), then prior to permitting a use which would threaten the potential to extract minerals in that area, the lead agency shall prepare a statement specifying its reasons for permitting the proposed use, in accordance with the requirements set forth in PRC Section 2762(d). Lead agency land use decisions involving areas identified as being of regional significance shall be in accordance with the lead agency's MRMP and shall also, in balancing mineral values against alternative land uses, consider the importance of these minerals to their market region as a whole and not just their importance to the lead agency's area of jurisdiction.

If an area is designated by the SMGB as an area of statewide significance, and the lead agency either has identified that area in its general plan as having important minerals to be protected pursuant PRC Section 2762(a), or otherwise has not yet acted pursuant to PRC Section 2762(a), then prior to permitting a use which would threaten the potential to extract minerals in that area, the lead agency shall prepare a statement specifying its reasons for permitting the proposed use, in accordance with the requirements set forth in PRC Section 2762(d). Lead agency land use decisions involving areas designated as being of regional significance shall be in accordance with the lead agency's MRMP and shall also, in balancing mineral values against alternative land uses, consider the importance of the mineral resources to the state and nation as a whole.

PRC Section 2764 further notes that upon the request of a surface mining operator or other interested person and payment by the requesting person of the estimated cost of processing the request, the lead agency having jurisdiction shall amend its general plan, or prepare a new specific plan or amend any applicable specific plan. The amended general plan or new specific plan, with respect to the continuation of the existing surface mining operation for which the request is made, must address future land uses in the vicinity of, and access

routes serving, the surface mining operation in light of the importance of the minerals to their market region as a whole, and not just their importance to the lead agency's area of jurisdiction.

In adopting amendments to the general plan, or adopting or amending a specific plan, the lead agency shall make written legislative findings as to whether the future land uses and particular access routes will be compatible or incompatible with the continuation of the surface mining operation, and if they are found to be incompatible, the findings shall include a statement of the reasons why they are to be provided for, notwithstanding the importance of the minerals to their market region as a whole or their previous designation by the SMGB, as the case may be. Any evaluation of a mineral deposit prepared by a lead agency shall be transmitted to the State Geologist and the SMGB. These procedures are not to be undertaken in any area that has already been designated and if a MRMP has been established and incorporated in the lead agency's general plan.

Mineral Resources Management Policies (MRMP) Goals and Policies

The SMGB has adopted mineral resource goals and policies to guide local government in the use of information developed by the Classification-Designation process. The criteria to be used by affected cities and counties in developing their own MRMP are laid out by the SMGB (CCR, Title 14, Section 3676), and include but may not be limited to the following:

- A summary of the data and analysis provided in the classification and/or designation reports, incorporation of PRC Section 2710, et seq., and state policy by reference (together with maps of the identified mineral deposits), or incorporation by reference of the classification and/or designation reports and maps.
- Policies that recognize the mineral information transmitted by the SMGB, assist in the management of land uses affecting areas of regional and statewide significance, and emphasize the conservation and development of the identified mineral deposits.
- Implementation measures, including:
 - Reference in the general plan to the location of identified mineral deposits and a discussion of those areas targeted for conservation and possible future resource extraction.
 - Use of maps to clearly delineate identified mineral deposits and those areas targeted for conservation and possible future resource extraction.
 - At least one of the following:

- Special purpose overlay zones, mineral resource/open-space zoning, or any other appropriate zoning that identifies the presence of mineral deposits and restricts the encroachment of incompatible land uses in those areas that are to be conserved.
- Requirements for recording notice of the presence of identified mineral deposits in the chain of property title.
- Conditions placed upon incompatible land uses within and next to any areas containing identified mineral deposits for the purpose of mitigating any significant land use conflicts.

Once policies have been incorporated into the general plan to protect areas containing minerals of regional or statewide significance, all of the city's or county's land use decisions affecting the designated areas must be in accordance with those policies. When making land use decisions involving identified mineral deposits, the jurisdiction must consider the importance of the mineral resource to the market region for deposits of regional significance or to the state and the nation for deposits of statewide significance rather than simply their importance within the jurisdiction (PRC Section 2763).

If a city or county intends to approve a use that would threaten the potential to extract minerals from an area designated as either of regional or statewide significance, the city or county must submit a statement specifying its reasons to the SMGB (PRC Sections 2762 and 2763). Unless the project is subject to the requirements of the California Environmental Quality Act (CEQA), which has its own public notice requirements, the city or county must also provide notice of the availability of this statement, make the statement available for public review for at least 60 days, and hold a public hearing for the purpose of receiving public comments. Prior to approving the use, the agency must evaluate all comments received and make a written response to each explaining its reasons for approval (PRC Section 2762(a)).

AGGREGATE PRODUCTION IN THE SAN GABRIEL VALLEY PRODUCTION-CONSUMPTION REGION

San Gabriel Valley P-C Region

P-C Regions reflect the extent of the market region served by a particular production district. However, study areas may be a county, a portion of a county, or a P-C region that may contain part(s) of one or more counties. P-C regions were originally selected such that the majority (95%) of the construction aggregate produced in the region was consumed in the region. When a P-C Region is updated, the situation may change and the 95% criteria may no longer be valid, reflecting changes in marketing patterns, depletion of resources and/or consolidation of companies in the region. P-C regional boundaries may then be changed.

When the determination of the study boundary for the San Gabriel Valley P-C Region originally was made in the mid-1980s, the region produced at least 95% of the aggregate consumed within the region. Since then, supply patterns have changed. Based on producer information, CGS (2010) estimates that approximately 30% of the region's aggregate production in 2008 was exported beyond the P-C Region boundary, with some or all of this possibly offset by imports from neighboring P-C Regions. Depleting aggregate reserves in certain metropolitan areas such as Orange County and northern San Diego County may have led to increased exports from the San Gabriel Valley P-C Region, and consolidation of ownership leading to longer hauling distances to company-owned concrete batch plants both inside and outside of the P-C Region, may have led to an increase in inter-regional aggregate commerce.

The San Gabriel Valley P-C Region is bordered by three other P-C Regions. The San Fernando P-C Region is situated to the north-northwest, the Orange County-Temescal Valley P-C Region is situated to the south-southeast, and the Claremont-Upland P-C Regions are situated to the east. The San Gabriel Valley P-C Region is shown in Figure 2. The fifty-six cities that are incorporated within the San Gabriel Valley P-C Region are provided in Table 1. Of these cities, only four have active surface mining operations situated within their respective jurisdictions: Arcadia, Azusa, Irwindale and Monrovia. Twenty-three cities, and Los Angeles County, have land classified by the State Geologist as MRZ-2; whereas, twelve cities have PCC-Grade Aggregate lands designated by the SMGB.

Table 1 Cities within the San Gabriel Valley P-C Region		
Alhambra	Hermosa Beach	Pico Rivera
Arcadia ⁺ #	Huntington Park ⁺	Rancho Palos Verdes
Azusa ⁺ #	Industry ⁺	Palos Verdes Estates
Baldwin Park ⁺ #	Inglewood	Redondo Beach
Bell	Irwindale ⁺ #	Rolling Hills
Bell Gardens	La Canada Flintridge ⁺ #	Rolling Hills Estates ⁺ #
Bellflower	La Habra Heights	Rosemead
Bradbury	Lakewood	San Dimas ⁺
Carson	La Puente	San Gabriel ⁺
Cerritos	Lawndale	San Marino
Commerce	Lomita	Santa Fe Springs
Compton	Long Beach	Sierra Madre ⁺
Covina	Lynwood	Signal Hill
Cudahy	Manhattan Beach ⁺	South El Monte ⁺
Downey	City of Los Angeles	South Gate
Duarte ⁺ #	Maywood	South Pasadena
El Monte ⁺ #	Monrovia ⁺ #	Temple City ⁺
Gardena	Montebello	Torrance ⁺ #
Glendale	Monterey Park	Vernon ⁺
Glendora ⁺ #	Norwalk	Walnut
Hawaiian	Paramount	West Covina ⁺
Gardens	Pasadena ⁺ #	Whittier
Hawthorn		

Note: + = MRZ-2 lands classified by the State Geologist.
= PCC-grade aggregate lands designated by the SMGB.



Figure 2. San Gabriel Valley Production-Consumption Region Location Map.

SUMMARY OF FINDINGS FROM SPECIAL REPORT 209

Special Report 209 presents a reevaluation and update of SR 143, Part IV and a review of the areas designated by the SMGB in 1984 for the benefit of the local lead agencies in the San Gabriel Valley P-C Region. The following conclusions were reached in SR 209:

- As of January, 2009, seven mines, operated by five different mining companies, were producing PCC-grade aggregate in the San Gabriel Valley P-C Region. In addition to PCC-grade aggregate, these mines also produce a full range of lower aggregate grades for such products as asphaltic concrete and base.
- About 27 percent, or 1,234 acres, of the 4,642 acres of lands designated by the Board in 1984 has been lost to land uses incompatible with mining. This equates to 435 million tons of PCC-grade aggregate resources lost.

- Since the 1984 designation of PCC-grade aggregate resources in the San Gabriel Valley P-C Region, an estimated 435 million tons of aggregate resources have been lost to urban development and land filling and another 406 million tons of aggregate resources have been depleted due to aggregate mining. This has reduced the designated PCC-grade aggregate resources by about 35 percent, from 2,402 million tons to 1,561 million tons.
- Four additional aggregate resource areas totaling 305 acres and containing more than 311 million tons of aggregate resources have been identified during the updating of the P-C Region. These areas were not designated in the 1984 SMGB Designation Report.
- As of January 1, 2009, the identified PCC-grade aggregate resources were 1,872 million tons and the permitted aggregate reserves were approximately 328 million tons.
- The anticipated consumption of aggregate in the San Gabriel Valley P-C Region for the next 50 years (2009 through the year 2058) is estimated to be 911 million tons, of which 638 million tons must be PCC quality.
- The 328 million tons of aggregate reserves available as of January 1, 2009 were projected to be approximately a 20-year supply of aggregate for the San Gabriel Valley P-C Region.

The SMGB, as specified in its *Guidelines for Classification and Designation of Mineral Lands* (SMGB, 2000), requires that mineral land classification reports for regions containing construction materials classified as MRZ-2 include, "*An estimate of the total quantity of each such construction material that will be needed to supply the requirements of both the county and the marketing region in which it occurs for the next 50 years. The marketing region is defined as the area within which such material is usually mined and marketed. The amount of each construction material mineral resource needed for the next 50 years shall be projected using past consumption rates adjusted for anticipated changes in market conditions and mining technology.*"

Discussion of the updated estimate of the 50-year consumption of aggregate, correlation between aggregate production and population, population and aggregate demand projections through the year 2058, and comparison of the 50-year aggregate demand with current PCC-grade aggregate reserves, are discussed by Kohler (2010). The impact of potential alternative sources of aggregate and recycled aggregate is also discussed by Kohler (2010). Aggregate sustainability is discussed by Clinkenbeard (2012). Notably, the 50-year demand for aggregate in the San Gabriel Valley P-C Region is estimated at 809 million tons. Permitted aggregate reserves are estimated at 322 million tons, comprising 40% of the 50-year demand, and resulting in an estimated 11 to 20 years of resource remaining, unless additional permitted aggregate reserves occur.

As of January 2009, five companies operated seven surface mining operations producing PCC-grade aggregate in the San Gabriel Valley P-C Region: Heidelberg Cement DBA Hanson Aggregates West, Inc., CEMEX Construction Materials, Vulcan Materials Company (three surface mine sites), S.L.S. & N. Inc. DBA Peck Road Sand and Gravel, and United Rock Products Corporation (one surface mine with two pits). Since publication of SR 143 Part IV in 1979, aggregate production within the San Gabriel Valley P-C Region amounted to 407 million tons (Kohler, 2010).

ADMINISTRATIVE PROCESS LEADING TO DESIGNATION, AND TERMINATION OF DESIGNATION

Designation is the formal recognition by the SMGB of lands containing mineral resources of regional or statewide economic significance that are needed to meet the demands of the future. At its October 9, 2010, regular business meeting, the SMGB accepted CGS SR 209 titled "*Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the San Gabriel Valley Production-Consumption Region, San Gabriel and Riverside Counties, California*" (Kohler, 2010).

The designation process commenced on March 10, 2011, when the SMGB accepted the State Geologist's recommendation for designation, and termination of designation, of certain sectors. Following acceptance of the proposed regulatory language, amendment of proposed regulatory language pertaining to CCR Section 3550.5 commenced. A 60-day public comment period commenced on July 29, 2011, and ended on September 26, 2011. In addition, pursuant to PRC Section 2793, a public hearing was held on August 30, 2011, in the City of Irwindale. During such public comment period and hearing, no comments were received.

Proposed action on regulation was published in the California Regulatory Notice Register on October 5, 2012, No. 40-Z (Notice File No. Z2012-0924-03). The 45-day public comment period was from October 5, 2012, to November 19, 2012. At its December 13, 2012, regular business meeting, the SMGB subsequently adopted the regulatory language for the designation of mineral lands of regional or statewide significance in the San Gabriel Valley P-C Region, and directed the Executive Officer to proceed with the 45-day notice to adopt proposed regulations which would amend Section 3550.5 to Title 14, Article 2, of the CCR, and provide a description of the locations of mineral resource areas designated to be of regional significance, and those areas where designation was to be terminated.

DESIGNATION OF RESOURCE AREAS IN THE SAN GABRIEL VALLEY P-C REGION

Previously Designated Resource Sectors

In SR 143, Part IV, all lands in the San Gabriel Valley P-C Region classified as containing significant aggregate resources (MRZ-2) and not precluded from mining by incompatible land uses, were identified as eight Sectors – A, B, C, D, E, F, H, and I totaling 6,309 acres and containing about 4,340 million tons of aggregate resources (including reserves).

In August 1984, the SMGB designated approximately 4,643 acres of the original sectors identified in SR 143 Part IV which included all of Sectors A, H, and I and portions of Sectors B, C, D, E and F as containing regionally significant aggregate resources. These designated areas contained approximately 2,402 million tons of PCC-grade aggregate resources (including reserves) at that time.

Between the designation in 1984 and the information cutoff date of January 2009 for the classification update, available designated resources have been reduced by land use changes (urbanization and landfilling) and depletion due to aggregate production.

Lost and Depleted Designated Resources

Since the 1984 designation of PCC-grade aggregate resources in the San Gabriel Valley P-C Region, 435 million tons of aggregate resources underlying 1,234 designated acres of land have been lost to urban development and land filling and another 406 million tons of aggregate resources have been depleted due to aggregate mining. This has reduced the designated PCC-grade aggregate resources by about 35 percent, from 2,402 million tons to 1,561 million tons.

Resources lost due to urbanization

Since the previous designation in 1984, about 413 acres of land containing 153 million tons of designated aggregate resources have been lost to future mining due to urban development of these lands. This amounts to about 6 percent of the 1984 designated resources.

Resources lost due to land filling

In addition to resources lost due to urban development, approximately 282 million tons or 12 percent of the 2,402 million tons of designated resources have been lost to land filling of previously mined pits. This land amounts to about 821 acres or about 18 percent of the 4,643 acres of previously designated land. Current acceptable fill materials consist of inert waste such as operational silts from the producers processing operations, broken concrete, asphaltic concrete, tile, masonry brick or block, concrete block, glass, and ceramics. All of these filled pits still contain underlying aggregate

deposits but they are no longer considered to be aggregate resources because the overlying fill has rendered them uneconomic.

Depletion of resources due to mining

Aggregate mining conducted in the P-C Region since 1980 – the completion date of Special Report 143 Part IV – has caused a depletion of 406 million tons of aggregate resources within the previously designated sectors during the 29 year period from 1980 through 2008.

Newly Designated Resources

Special Report 209 identified four new aggregate resource sectors that were not previously designated. These four sectors (Sectors J, K, L and M) total 305 acres and contain more than 311 million tons of aggregate reserves. The exact resource number cannot be given because of the proprietary nature of the resources in Sectors K, L and M. The resources in Sectors J, K, L and M are designated to be of regional significance.

Current Total Designated Resources

In order to estimate the current total aggregate resources designated to be of regional significance in the San Gabriel Valley P-C Region, one must start with the resources designated in 1984 and subtract the resources lost to urbanization and the resources lost to landfilling. The production from within the Sectors from 1980 through 2008 must also be subtracted. Finally the newly designated resources must be added. The updated PCC-grade aggregate resources designated to be of regional significance in the San Gabriel Valley P-C Region total 3,714 acres and more than 1,872 million tons (Table 2).

Table 2
Summary of Total Designated Resources as of January 2009

Area (Acres)	Resources (Million tons)	Comments
4,643	2,402	Designated as of 1980
-413	-153	Lost due to urbanization (1980-2008), designation terminated
-821	-282	Lost due to land filling (1980-2008), designation terminated
N/A	-406	Decrease due to mining (1980-2008 production)
+305	+311	Newly designated resources
3,714	1,872	Total Designated Resources Remaining as of January 2009

Description of Designated Sectors

The updated designations for the San Gabriel Valley P-C Region, incorporates those sectors or portions of sectors previously designated in 1984 that remain designated, newly designated sectors, and portions of designated sectors that have since been terminated due to incompatible land uses since the original designation in 1984. A description of each Sector is discussed below and summarized on Table 3. The resource areas designated, or terminated, are shown on the two Plates (Figures 3 and 4): *“Updated Regionally Significant Construction Aggregate Resources in the Northern San Gabriel Production-Consumption Regions, Los Angeles County, California”* (Plate 1), and *“Updated Designation of Regionally Significant Construction Aggregate Resources in the Eaton Wash, Devils Gate Reservoir, and Palos Verdes Areas, San Gabriel Production-Consumption Region, Los Angeles County, California”* (Plate 2). These two Plates are included with this designation report (in pocket). An excerpt from Plate 1 is provided in Figure 5.

Description of Previously Designated Resource Sectors

Eight resource sectors that were previously designated are described below.

Sector A: Sector A is characterized as offstream and instream deposits of the San Gabriel River below Morris Dam near Azusa (Plate 1) and is underlain by aggregate deposits of the San Gabriel River, San Gabriel Alluvial Fan, Fish Canyon and Van Tassel Canyon. The area designated to be of regional significance in 1984 comprised about 867 acres totaling 362 million tons located in the cities of Azusa and Irwindale and in unincorporated Los Angeles County. As of January 2009, Vulcan Materials Company was operating its Reliance plant and mine in the southern portion of the sector. Vulcan was also operating the Fish Canyon Quarry, the southern portion of which is within Sector A. Owl Rock Products Company also mined and processed aggregate within the sector up until 1992.

Between the completion of SR 143, Part IV in 1980 and the data cutoff date of January 1, 2009 for SR 209, six separate areas in Sector A totaling 263 acres have become incompatible with mining because of urbanization or landfilling operations. The designated status of these six areas has been terminated. Some depletion of resources by mining also occurred within Sector A totaling million 67 tons.

Sector A now contains 604 acres of land designated to be of regional mineral resource significance. A revised resource tonnage for Sector A cannot be given, but is included in the P-C Region total. The designated

area is shown on Plate 1 along with the areas of Sector A for which designation has been terminated.

Sector B: Sector B is located in the city of Azusa. An instream deposit within the flood control channel of the San Gabriel River upstream of Foothill Boulevard near Azusa, Sector B occupies a portion of the San Gabriel River Channel. The area designated to be of regional significance in 1984 comprised about 307 acres totaling 200 million tons. No surface mining operations exist in Sector B; albeit, alluvial material has been extracted for maintenance purposes.

Between the completion of SR 143, Part IV in 1980 and the data cutoff date of January 1, 2009 for SR 209, one area in Sector B totaling 12 acres has become incompatible with mining because of urbanization or landfilling operations. The designated status of this area has been terminated. Some depletion of resources by mining also occurred within Sector B totaling 8 million tons.

Sector B now contains 295 acres of land designated to be of regional mineral resource significance. A revised resource tonnage for Sector B is estimated at 192 million tons. The designated area is shown on Plate 1 along with the area of Sector B for which designation has been terminated.

Sector C: Sector C is an instream deposit in a portion of the Santa Fe Flood Control Basin and spillway channel within the city of Irwindale. The area designated to be of regional significance in 1984 comprised about 693 acres totaling 602 million tons. No surface mining operations exist in Sector C, but there has been historic aggregate mining in the area.

Between the completion of SR 143, Part IV in 1980 and the data cutoff date of January 1, 2009 for SR 209, two separate areas in Sector C totaling 42 acres have become incompatible with mining because of urbanization or landfilling operations. The designated status of these two areas has been terminated. Some depletion of resources by mining also occurred within Sector C totaling 36 million tons.

Sector C now contains 651 acres of land designated to be of regional mineral resource significance. A revised resource tonnage for Sector C is estimated at 566 million tons. The designated area is shown on Plate 1 along with the areas of Sector C for which designation has been terminated.

Sector D: Sector D is an offstream and instream deposit in the western portion of the San Gabriel River Fan near Baldwin Park and Arcadia. The six areas comprising Sector D and designated to be of regional significance in 1984 comprised about 1,619 acres totaling 730 million tons. Sector D is located within the city limits of Irwindale, Monrovia and Arcadia. Most of the land is owned or controlled by aggregate companies, and are sites of present day or historic aggregate mining activities.

Between the completion of SR 143, Part IV in 1980 and the data cutoff date of January 1, 2009 for SR 209, six separate areas in Sector D totaling 391 acres have become incompatible with mining because of urbanization or landfilling operations. The designated status of these six areas has been terminated. Some depletion of resources by mining also occurred within Sector D totaling 116 million tons.

Sector D now contains 1,228 acres of land designated to be of regional mineral resource significance. A revised resource tonnage for Sector D is estimated at 614 million tons. The designated area is shown on Plate 1 along with the areas of Sector D for which designation has been terminated.

Sector E: Sector E is an offstream deposit in the eastern portion of the San Gabriel River Fan in Irwindale. The area designated to be of regional significance in 1984 comprised about 784 acres totaling 450 million tons. Situated east of the Santa Fe Flood Control Basin within the city limits of Irwindale and Azusa, CEMEX Construction Material's Azusa Quarry is the sole aggregate mining operation within Sector E. Areas of past mining activities within this sector are either backfilled or in the process of being backfilled, including a portion of the CEMEX's Azusa Quarry.

Between the completion of SR 143, Part IV in 1980 and the data cutoff date of January 1, 2009 for SR 209, six separate areas in Sector E totaling 422 acres have become incompatible with mining because of urbanization or landfilling operations. The designated status of these six areas has been terminated. Some depletion of resources by mining also occurred within Sector E totaling 257 million tons.

Sector E now contains 362 acres of land designated to be of regional mineral resource significance. . A revised resource tonnage for Sector E is estimated at 257 million tons. The designated area is shown on Plate 1 along with the areas of Sector E for which designation has been terminated.

Sector F: Sector F is an instream deposits of Eaton Wash located in the Eaton Wash Flood Control Basin (Plate 2). The area designated to be of regional significance in 1984 comprised about 46 acres totaling 4 million tons. There are no active aggregate mining activity within this sector.

Sector H: Sector H is an instream deposit of Arroyo Seco in the Devils Gate Reservoir area (Plate 2). The area designated to be of regional significance in 1984 comprised about 204 acres totaling 35 million tons. There are no active aggregate mining activity within this sector.

Sector I: Sector I is a hillside deposit in the Palos Verdes Hills on Narbonne Avenue in Bent Springs Canyon in the cities of Rolling Hills and Torrance (Plate 2) and is underlain by the poorly consolidated, medium to fine grained San Pedro Sandstone. The area designated to be of regional significance in 1984 comprised about 227 acres. Being comprised of PCC-grade sand with minimal coarse material (1-2 percent), this deposit cannot be considered as an independent source of PCC-grade aggregate. Most of the Sector occupies the closed Chandlers Palos Verdes Mine, and is now being utilized as a landfill. Future plans are underway to develop the site into a 119 home subdivision.

Between the completion of SR 143, Part IV in 1980 and the data cutoff date of January 1, 2009 for SR 209, two areas in Sector I totaling 104 acres have become incompatible with mining because of urbanization or landfilling operations. The designated status of these areas have been terminated. Some depletion of resources by mining also occurred within Sector I.

Sector I now contains 123 acres of land designated to be of regional mineral resource significance. A revised resource tonnage for Sector I is estimated at 19 million tons. The designated area is shown on Plate 2 along with the areas of Sector I for which designation has been terminated.

Table 3
Summary of Sectors Previously Designated

Sector	Location	Acres	1984 Designated Resources (million tons)
A	Offstream and instream deposits of the San Gabriel River below Morris Dam near Azusa	867	362
B	Instream deposit consisting of the flood control channel of the San Gabriel River upstream of Foothill Boulevard near Azusa.	307	200
C	Instream deposits in a portion of the Santa Fe Flood Control Basin and spillway channel near Irwindale.	693	602
D	Offstream and instream deposits in the western portion of the San Gabriel River Fan near Baldwin Park and Arcadia.	1,619	730
E	Offstream deposits in the eastern portion of the San Gabriel River Fan in Irwindale.	784	450
F	Instream deposits of Eaton Wash located in the Eaton Wash Flood Control Basin.	46	4
H	Instream deposits of Arroyo Seco in the Devils Gate Reservoir area.	204	35
I	Hillside deposit in the Palos Verdes Hills on Narbonne Avenue in Bent Springs Canyon.	123	19

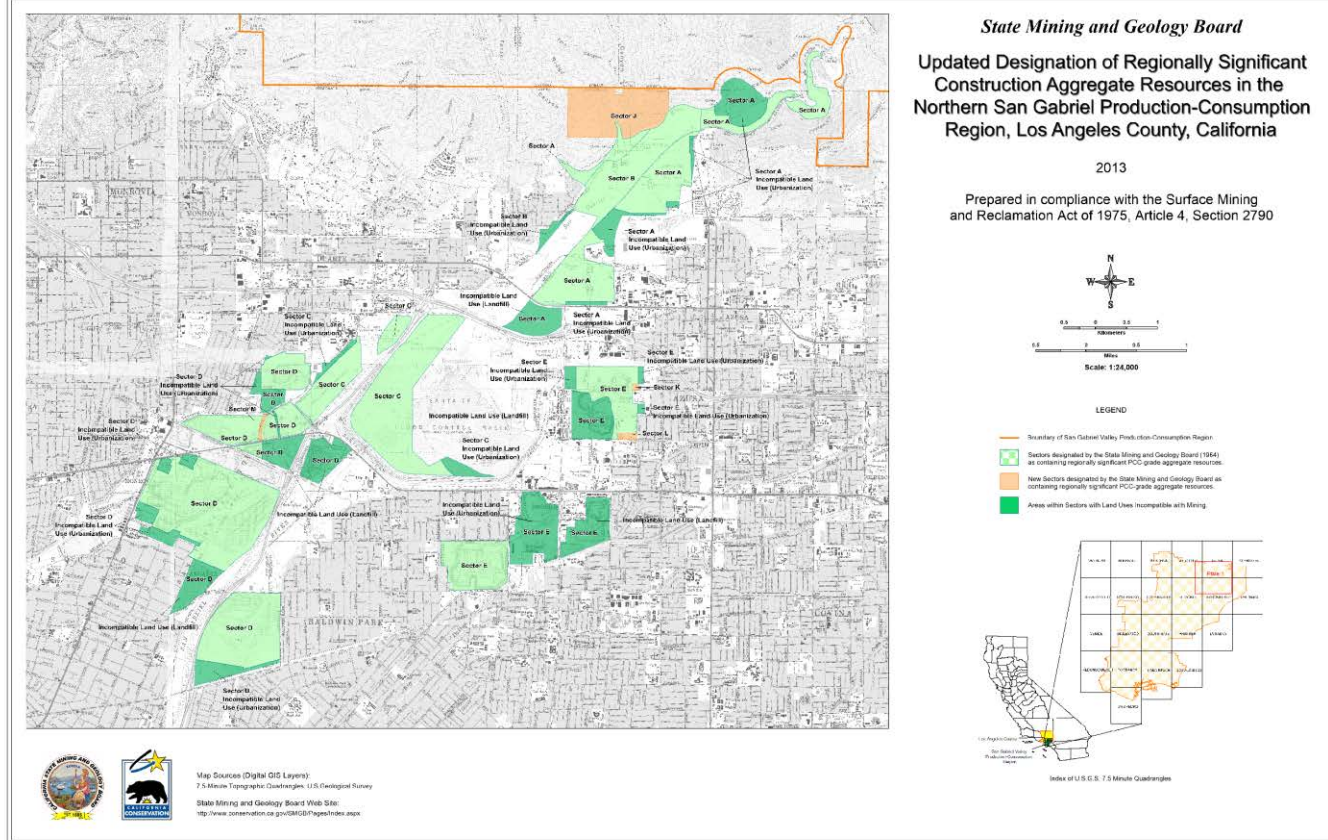


Figure 3. Updated Regionally Significant Construction Aggregate Resources in the Northern San Gabriel Production-Consumption Regions, Los Angeles County, California (Plate 1 in pocket).

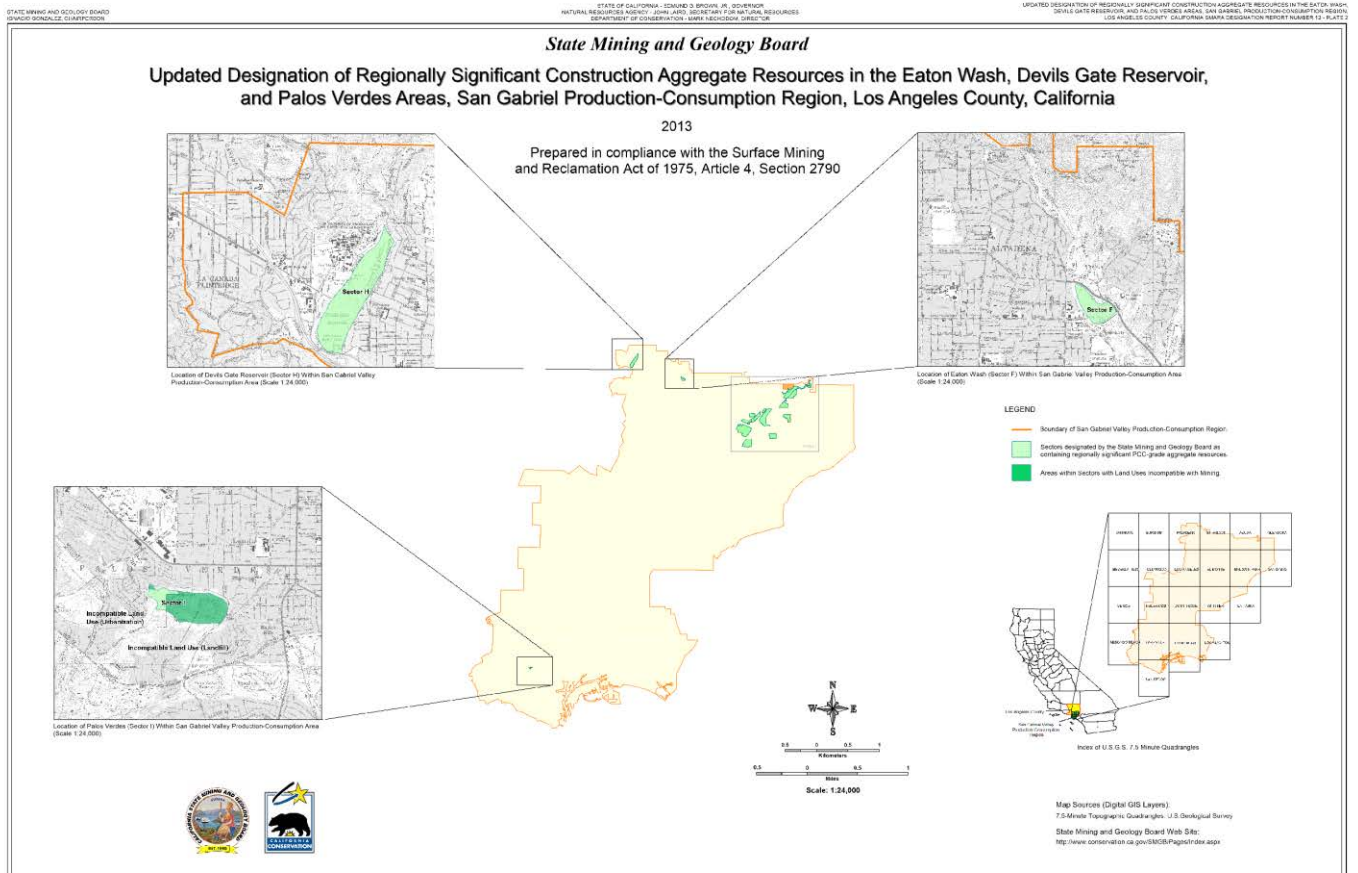


Figure 4. Updated Designation of Regionally Significant Construction Aggregate Resources in the Eaton Wash, Devils Gate Reservoir, and Palos Verdes Areas, San Gabriel Production-Consumption Region, Los Angeles County, California (Plate 2 in pocket).

Description of Newly Designated Resource Sectors

Four new resource sectors that were not previously designated are summarized in Table 4, and described below.

Sector J: Sector J is a hard rock deposit in the San Gabriel Mountains northeast of San Gabriel Creek in the City of Azusa. Sector J contains 289 acres of land covering most of the Fish Canyon Quarry site, an active mine operated by Vulcan Materials Company in January 2009. The sector also includes 55 acres not held by Vulcan Materials. At the time of 1984 designation and when the original classification report was written for the P-C Region, the Fish Canyon site was classified MRZ-3 because no data

indicated that the rock at the site was of sufficient quality to be classified MRZ-2 for PCC-grade aggregate.

In 1988, Azusa Rock Inc. petitioned the SMGB to reclassify the quarry site MRZ-2 for PCC-grade aggregate. At that time, the petitioner submitted aggregate test data to the SMGB indicating that a large portion of the rock at the quarry met specifications for PCC-grade aggregate. Consequently, CGS staff had sufficient information to reclassify this area from MRZ-3 to MRZ-2.

Resources (including reserves) for this area total 311 million tons. Reserves for Sector J are confidential. Sector J is designated to be of regional mineral resource significance. The designated area is shown on Plate 1.

Sector K: Sector K is an offstream deposit situated in the eastern portion of the San Gabriel River Fan in Irwindale and includes a two-acre unmined parcel currently owned by CEMEX and considered part of the its Azusa Quarry site. Defined as MRZ-2 in SR 143 Part IV, it was not included as part of Sector E since it was not available to mining at the time. Reevaluation indicates this area can be mined in conjunction with the active CEMEX operation. Resources and reserves are deemed proprietary. The designated area is shown on Plate 1.

Sector L: Sector L is an offstream deposits in the eastern portion of the San Gabriel River Fan in Irwindale and includes a nine-acre unmined parcel currently owned by CEMEX and also considered part of its Azusa Quarry site. Defined as MRZ-2 in SR 143 Part IV, it was not included as part of Sector E since it was not available to mining at the time. Reevaluation indicates this area can be mined in conjunction with the active CEMEX operation. Resources and reserves are deemed proprietary. The designated area is shown on Plate 1.

Sector M: Sector M is an offstream and instream deposit situated in the western portion of the San Gabriel River Fan near Baldwin Park and Arcadia. Defined as MRZ-2 in SR 143 Part IV, it was not designated since it was occupied by Buena Vista Street and thus was not available to mining at the time. Reevaluation indicates this area can be mined since United Rock Products has paid to realign the street so that the underlying area could be mined in conjunction with the United Rock Product's Pit #2. Resources and reserves are deemed proprietary. The newly designated areas are shown on Plate 1.

Table 4
Summary of Newly Designated Sectors

Sector	Location	Acres	1984 Designated Resources (million tons)
J	Hard rock deposits in the San Gabriel Mountains northeast of San Gabriel Creek in the City of Azusa.	289	311
K	Offstream deposits in the eastern portion of the San Gabriel River Fan in Irwindale.	2	Proprietary
L	Offstream deposits in the eastern portion of the San Gabriel River Fan in Irwindale.	9	Proprietary
M	Offstream and instream deposits in the western portion of the San Gabriel River Fan near Baldwin Park and Arcadia.	5	Proprietary
Total		305	>311

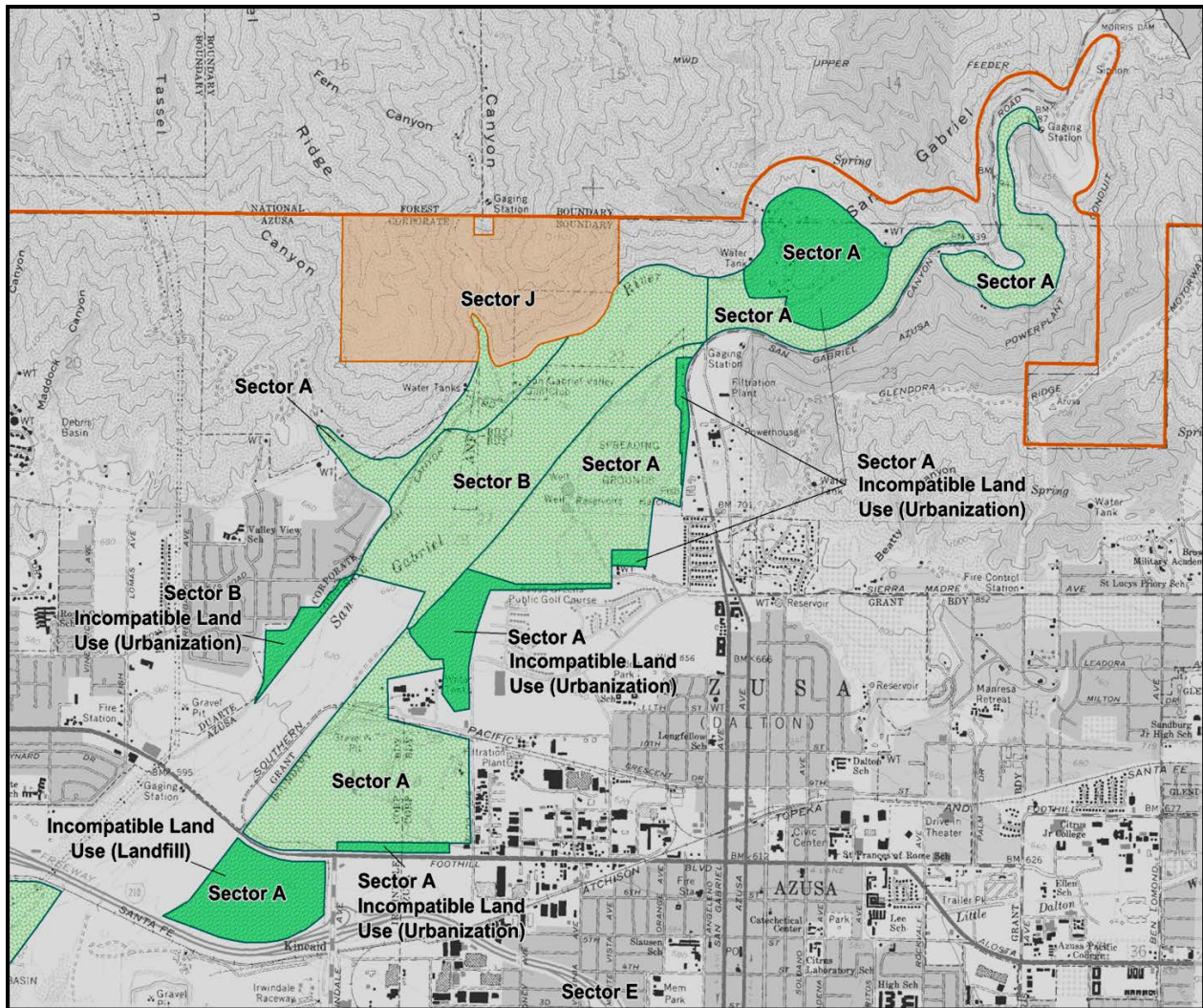


Figure 5. Except from Plate I showing previously designated areas (light green), areas where designation has been terminated (dark green) and newly designated (light orange) areas on a topographic base map.

Sectors Designated for Termination

Six portions of Sectors A, B, C, D, E and I have been identified for termination of designation status because of high-value incompatible land use developments as summarized in Table 5. As a result, a total of 934 acres, and 435 million tons of resources have been lost to land uses now incompatible with mining.

Table 5
Summary of Areas Terminated and Resources Lost

Sector	Location	Acres Lost	Resources Lost (million tons)		
			Urbanization	Landfill Operations	Total Resources Lost
A	There are six separate areas that are now incompatible with mining. Forty-three million tons of resources in these areas have been lost because of urbanization and twenty-four million tons of resources have been lost because of landfill operations.	263	43	24	67
B	There is one area that has become incompatible with mining. Eight million tons of resources have been lost to urbanization.	12	8		8
C	There are two areas that have become incompatible with mining. Thirty-six million tons of resources have been lost to urbanization.	42	36		36
D	There are eleven areas that are now incompatible with mining. Fifty-two million tons of resources have been lost to urbanization and sixty-four million tons of resources have been lost because of landfill operations.	391	52	64	116
E	There are six areas that have become incompatible with mining. Fourteen million tons of resources have been lost to urbanization, and one hundred seventy-nine million tons of resources have been lost to landfill operations.	422	14	179	193
I	There are two areas that have become incompatible with mining. Fifteen million tons of resources have been lost to landfill operations.	104		15	15
		934	153	282	435

ADDITIONAL INFORMATION

Questions regarding this designation report, the classification-designation program, or the requirements of SMARA, should be directed to the Executive Officer of the SMGB, at 801 K Street, Suite 2015, Sacramento, California 95814, telephone (916) 322-1082.

Copies of the classification study prepared for the San Gabriel Valley P-C Region, Special Report 209, titled *"Update of Mineral Land Classification for Portland Cement*

Concrete-Grade Aggregate in the San Gabriel Valley Production-Consumption Region, Los Angeles County”, are available from the California Department of Conservation, California Geological Survey, 801 K Street, Sacramento, California 95814.

This report and associated regulations are available on the SMGB’s website at:

<http://www.conservation.ca.gov/smgb>

REFERENCES

Clinkenbeard, John P., 2012, *Aggregate Sustainability in California – Map Sheet 52 (Updated 2012)*: California Geological Survey.

Kohler, S. L., 2010, *Update of Mineral Land Classification for Portland Cement Concrete Grade Aggregate in the San Gabriel Valley Production-Consumption Region*: California Geological Survey Special Report 209.

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Miller, R.V., 1994, *Update of Mineral Land Classification of Portland Cement Concrete Aggregate in Ventura, Los Angeles, and Orange Counties, California, Part II - Los Angeles County*. California Division of Mines and Geology Open File Report 94-14.

State Mining and Geology Board, 1984, *Designation of Regionally Significant Construction Aggregate Resource Areas in the Orange County-Temescal Valley and San Gabriel Valley Production-Consumption Regions*: SMARA Designation Report No. 3.

APPENDIX A

Glossary

APPENDIX A

Glossary

Aggregate Products. Decomposed granite, sand and gravel, slag, or stone. CCR Section 3695)

Area of regional significance. An area designated by the board pursuant to Section 2790 which is known to contain a deposit of minerals, the extraction of which is judged to be of prime importance in meeting future needs for minerals in a particular region of the state within which the minerals are located and which, if prematurely developed for alternate incompatible land uses, could result in the permanent loss of minerals that are of more than local significance. (PRC Section 2726)

Area of statewide significance. An area designated by the board pursuant to Section 2790 which is known to contain a deposit of minerals, the extraction of which is judged to be of prime importance in meeting future needs for minerals in the state and which, if prematurely developed for alternate incompatible land uses, could result in the permanent loss of minerals that are of more than local or regional significance. (PRC Section 2727)

Base Metals and Other Metals. Antimony, arsenic, chromite, copper, lead, manganese, mercury, molybdenum, nickel, pyrite, tin, titanium, tungsten, uranium, vanadium, and zinc. (CCR Section 3695)

Compatible Land Use. Land uses inherently compatible with mining and/or that require a minimum public or private investment in structures, land improvements, and which may allow mining because of the relative economic value of the land and its improvements. Examples of such uses may include, but shall not be limited to, very low density residential, geographically extensive but low impact industrial, recreational, agricultural, silvicultural, grazing, and open space.

Concrete-grade aggregate. An indispensable building material which includes Portland cement concrete (PPC) and asphalt concrete (AC) aggregate.

Gold, Silver, and Precious Metals. Gold (lode), gold (placer), platinum group metals, and silver. (CCR Section 3695)

Economic. Implies that profitable extraction or production under defined investment assumptions has been established, analytically demonstrated, or assumed with reasonably certainty.

Identified Mineral Resources. Resources whose location, grade, quality, and quantity are known or estimated from specific geologic evidence. Identified mineral resources include economic, marginally economic, and subeconomic components. To reflect varying degrees of geologic certainty, these economic divisions can be subdivided into demonstrated and inferred. DEMONSTRATED: A term for the sum of measured plus indicated.

Incompatible Land Use. Land uses inherently incompatible with mining and/or that require public or private investment in structures, land improvements, and landscaping and that may prevent mining because of the greater economic value of the land and its improvements. Examples of such uses may include, but shall not be limited to, high density residential, low

density residential with high unit value, public facilities, geographically limited but impact intensive industrial, and commercial. CCR Section 3675

Indicated. Quantity and grade and/or quality are computed from information similar to that used for measured resources, but the sites for inspection, sampling, and measurement are farther apart or otherwise less adequately spaced. The degree of assurance, although lower than that of measured resources, is high enough to assume continuity between points of observation.

Inferred. Estimates are based on an assumed continuity beyond measured and/or indicated resources, for which there is geologic evidence. Inferred resources may or may not be supported by samples or measurements.

Industrial Minerals. Borates, cinders, clay, diatomite, dolomite, gypsum, iron ore, lime, limestone, perlite, pumice, rare earth elements, saline compounds, salt, shale, silica, specialty sand, abrasives, asbestos, barite, bituminous rock, decorative rock, dimension stone, feldspar, fluorite, gemstones, graphite, kyanite, lignite, lithium, magnesite, mica, olivine, peat, phosphate, potash, pyrophyllite, quartz crystal, sea shells, sercite, talc, vermiculite, wollastonite, zeolites, and zircon. (CCR Section 3695)

Lead agency. The city, county, San Francisco Bay Conservation and Development Commission, or the board which has the principal responsibility for approving a reclamation plan pursuant to this chapter. (PRC Section 2728)

Measured. Quantity is computed from dimensions revealed in outcrops, trenches, workings, or drill holes; grade and/or quality are computed from the results of detailed sampling. The sites for inspection, sampling, and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth, and mineral content of the resource are well established.

Marginal reserves. The part of the demonstrated reserve base that, at the time of determination, borders on being economically producible. Its essential characteristic is economic uncertainty. Included are resources that would be producible, given postulated changes in economic or technologic factors.

Marginal resources. The part of the inferred resource base that, at the time of determination, would be economically producible, given postulated changes in economic or technologic factors.

Minerals. Any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum. (CCR Section 3501)

Mineral Deposit. A mass of naturally occurring mineral material, (e.g., metal ores or nonmetallic minerals, usually of economic value, without regards to mode of origin). The mineral material may be of value for its chemical and/or physical characteristics.

Mineral Occurrence. Any ore or economic mineral in any concentration found in bedrock or as float; especially a valuable mineral in sufficient concentration to suggest exploration.

Mineral Resource. A concentration of naturally occurring solid, liquid, or gaseous material in or on the earth's crust in such form and amount that economic extraction of a commodity from the concentration is currently or potentially feasible. The terms reserves and mineral resources are synonymous and includes metallic and non-metallic minerals.

Production-Consumption (P-C) Region. The extent of the market region served by a particular production district. However, study areas may be a county, a portion of a county, or a P-C region that may contain part(s) of one or more counties.

Reserves. That part of the resource base that could be economically extracted or produced at the time of determination. The term reserves need not signify that extraction facilities are in place and operative. In the case of aggregates, the term includes only permitted resources.

Resource sectors. Areas judged to contain a significant deposit of construction quality aggregate that is available, from a general land-use perspective, to meet future needs (50 years) of the region.

Subeconomic resources. The part of identified resources that does not meet the economic criteria of marginal reserves and marginal resources.

APPENDIX B

Statutory and Regulatory Authority

APPENDIX B

Statutory and Regulatory Authority

PRC Section 2711 recognizes that the state's mineral resources are vital, finite, and important, and the responsible protection and development of these mineral resources is vital to a sustainable California, and states:

“(a) The Legislature hereby finds and declares that the extraction of minerals is essential to the continued economic well-being of the state and to the needs of the society, and that the reclamation of mined lands is necessary to prevent or minimize adverse effects on the environment and to protect the public health and safety.

(b) The Legislature further finds that the reclamation of mined lands as provided in this chapter will permit the continued mining of minerals and will provide for the protection and subsequent beneficial use of the mined and reclaimed land.

(c) The Legislature further finds that surface mining takes place in diverse areas where the geologic, topographic, climatic, biological, and social conditions are significantly different and that reclamation operations and the specifications therefor may vary accordingly.

(d) The Legislature further finds that the production and development of local mineral resources that help maintain a strong economy and that are necessary to build the state's infrastructure are vital to reducing transportation emissions that result from the distribution of hundreds of millions of tons of construction aggregates that are used annually in building and maintaining the state.

(e) The Legislature further finds and recognizes the need of the state to provide local governments, metropolitan planning organizations, and other relevant planning agencies with the information necessary to identify and protect mineral resources within general plans.

(f) The Legislature further finds that the state's mineral resources are vital, finite, and important natural resources and the responsible protection and development of these mineral resources is vital to a sustainable California.”

PRC Section 2761 requires the SMGB to transmit mineral resource information on the classified areas described above, or on other designated areas, to a lead agency or a metropolitan planning organization within 30 days of receiving a request for the information and states:

“(a) On or before January 1, 1977, and, at a minimum, after the completion of each decennial census, the Office of Planning and Research shall identify portions of the following areas within the state that are urbanized or are subject to urban expansion or other irreversible land uses that would preclude mineral extraction:

(1) Standard metropolitan statistical areas and other areas for which information is readily available.

(2) Other areas as may be requested by the board.

(b) In accordance with a time schedule, and based upon guidelines adopted by the board, the State Geologist shall classify, on the basis solely of geologic factors, and

without regard to existing land use and land ownership, the areas identified by the Office of Planning and Research, any area for which classification has been requested by a petition that has been accepted by the board, or any other areas as may be specified by the board, as one of the following:

(1) An area that contains mineral deposits and is not of regional or statewide significance.

(2) An area that contains mineral deposits and is of regional or statewide significance.

(3) An area that contains mineral deposits, the significance of which requires further evaluation.

(c) The State Geologist shall require the petitioner to pay the reasonable costs of classifying an area for which classification has been requested by the petitioner.

(d) The State Geologist shall transmit the information to the board for incorporation into the state policy and for transmittal to lead agencies.

(e) The board shall transmit mineral resource information on areas classified by the State Geologist pursuant to paragraph (2) of subdivision

(b), or on applicable areas designated by the board pursuant to Section 2790, or both, to a lead agency or a metropolitan planning organization within 30 days of receiving a request for the mineral resource information identified within the jurisdiction of the lead agency or the metropolitan planning organization.”

PRC Section 2762 requires lead agencies to establish mineral resource management policies to be incorporated into their general plan and states:

“(a) Within 12 months of receiving the mineral information described in Section 2761, and also within 12 months of the designation of an area of statewide or regional significance within its jurisdiction, a lead agency shall, in accordance with state policy, establish mineral resource management policies to be incorporated in its general plan that will:

(1) Recognize mineral information classified by the State Geologist and transmitted by the board.

(2) Assist in the management of land use that affects access to areas of statewide and regional significance.

(3) Emphasize the conservation and development of identified mineral deposits.

(b) A lead agency shall submit proposed mineral resource management policies to the board for review and comment prior to adoption.

(c) A subsequent amendment of the mineral resource management policy previously reviewed by the board shall also require review and comment by the board.

(d) (1) If an area is classified by the State Geologist as an area described in paragraph (2) of subdivision (b) of Section 2761 and the lead agency either has designated that area in its general plan as having important minerals to be protected pursuant to subdivision (a), or otherwise has not yet acted pursuant to subdivision (a), then prior to permitting a use that would threaten the potential to extract minerals in that area, the lead agency shall prepare, in conjunction with preparing, if required, an environmental document required by Division 13 (commencing with Section 21000), or if, a statement specifying its reasons for permitting the proposed use, and shall forward a copy to the State Geologist and the board for review.

(2) If the proposed use is subject to the requirements of Division 13 (commencing with Section 21000), the lead agency shall comply with the public review requirements of that division. Otherwise, the lead agency shall provide public notice of the availability of its statement by all of the following:

(A) Publishing the notice at least one time in a newspaper of general circulation in the area affected by the proposed use.

(B) Directly mailing the notice to owners of property within one-half mile of the parcel or parcels on which the proposed use is located as those owners are shown on the latest equalized assessment role.

(3) The public review period shall not be less than 60 days from the date of the notice and shall include at least one public hearing. The lead agency shall evaluate comments received and shall prepare a written response. The written response shall describe the disposition of the major issues raised. In particular, if the lead agency's position on the proposed use is at variance with recommendations and objections raised in the comments, the written response shall address in detail why specific comments and suggestions were not accepted.

(e) Prior to permitting a use that would threaten the potential to extract minerals in an area classified by the State Geologist as an area described in paragraph (3) of subdivision (b) of Section 2761, the lead agency may cause to be prepared an evaluation of the area in order to ascertain the significance of the mineral deposit located in the area. The results of the evaluation shall be transmitted to the State Geologist and the board."

PRC Section 2763 requires lead agencies to prepare a statement specifying reasons for permitting a proposed use involving areas designated as being of statewide significance and states:

"(a) If an area is designated by the board as an area of regional significance, and the lead agency either has designated that area in its general plan as having important minerals to be protected pursuant to subdivision (a) of Section 2762, or otherwise has not yet acted pursuant to subdivision (a) of Section 2762, then prior to permitting a use which would threaten the potential to extract minerals in that area, the lead agency shall prepare a statement specifying its reasons for permitting the proposed use, in accordance with the requirements set forth in subdivision (d) of Section 2762. Lead agency land use decisions involving areas designated as being of regional significance shall be in accordance with the lead agency's mineral resource management policies and shall also, in balancing mineral values against alternative land uses, consider the importance of these minerals to their market region as a whole and not just their importance to the lead agency's area of jurisdiction.

(b) If an area is designated by the board as an area of statewide significance, and the lead agency either has designated that area in its general plan as having important minerals to be protected pursuant to subdivision (a) of Section 2762, or otherwise has not yet acted pursuant to subdivision (a) of Section 2762, then prior to permitting a use which would threaten the potential to extract minerals in that area, the lead agency shall

prepare a statement specifying its reasons for permitting the proposed use, in accordance with the requirements set forth in subdivision (d) of Section 2762. Lead agency land use decisions involving areas designated as being of statewide significance shall be in accordance with the lead agency's mineral resource management policies and shall also, in balancing mineral values against alternative land uses, consider the importance of the mineral resources to the state and nation as a whole."

PRC Section 2764 addresses amendments to, and adoption of, general plans and states:

"(a) Upon the request of an operator or other interested person and payment by the requesting person of the estimated cost of processing the request, the lead agency having jurisdiction shall amend its general plan, or prepare a new specific plan or amend any applicable specific plan, that shall, with respect to the continuation of the existing surface mining operation for which the request is made, plan for future land uses in the vicinity of, and access routes serving, the surface mining operation in light of the importance of the minerals to their market region as a whole, and not just their importance to the lead agency's area of jurisdiction.

(b) In adopting amendments to the general plan, or adopting or amending a specific plan, the lead agency shall make written legislative findings as to whether the future land uses and particular access routes will be compatible or incompatible with the continuation of the surface mining operation, and if they are found to be incompatible, the findings shall include a statement of the reasons why they are to be provided for, notwithstanding the importance of the minerals to their market region as a whole or their previous designation by the board, as the case may be.

(c) Any evaluation of a mineral deposit prepared by a lead agency for the purpose of carrying out this section shall be transmitted to the State Geologist and the board.

(d) The procedure provided for in this section shall not be undertaken in any area that has been designated pursuant to Article 6 (commencing with Section 2790) if mineral resource management policies have been established and incorporated in the lead agency's general plan in conformance with Article 4 (commencing with Section 2755)."

PRC Section 2790 provides the SMGB authority to consider areas of statewide significance for designation which states:

"After receipt of mineral information from the State Geologist pursuant to subdivision (c) of Section 2761, the board may by regulation adopted after a public hearing designate specific geographical areas of state as areas of statewide or regional significance and specify the boundaries thereof. Such designation shall be included as a part of the state policy and shall indicate the reason for which the particular area designated is of significance to the state or

region, the adverse effects that might result from premature development of incompatible land uses, the advantages that might be achieved from extraction of the minerals of the area, and the specific goals and policies to protect against the premature incompatible development of the area.”

PRC Section 2793 provides statutory authority which allows the SMGB to terminate, in whole or in part, an area previously designated, and states:

“The board may, by regulation adopted after a public hearing, terminate, partially or wholly, the designation of any area of statewide or regional significance on a finding that the direct involvement of the board is no longer required.”

CCR Section 3675 provides definition of compatible and incompatible land use, and states:

“Definitions. The following definitions as used herein shall govern the interpretation of these regulations:

Compatible Land Use. Land uses inherently compatible with mining and/or that require a minimum public or private investment in structures, land improvements, and which may allow mining because of the relative economic value of the land and its improvements. Examples of such uses may include, but shall not be limited to, very low density residential, geographically extensive but low impact industrial, recreational, agricultural, silvicultural, grazing, and open space.

Incompatible Land Use. Land uses inherently incompatible with mining and/or that require public or private investment in structures, land improvements, and landscaping and that may prevent mining because of the greater economic value of the land and its improvements. Examples of such uses may include, but shall not be limited to, high density residential, low density residential with high unit value, public facilities, geographically limited but impact intensive industrial, and commercial.”

CCR Section 3676. This section provides a summary of information to be provided as part of MRMP and states:

Section 3676. “Mineral Resource Management Policies.

Lead agency mineral resource management policies adopted pursuant to the provisions of PRC Section 2762 shall include but not be limited to, the following:

(a) A summary of the information provided by the classification and/or designation reports, or incorporation of PRC Sections 2710 et seq., and state policy by reference, together with maps of the identified mineral deposits or incorporation by reference of the classification and/or designation maps provided by the Board.

(b) Statements of policy in accordance with the provisions of PRC Section 2762(a).

(c) Implementation measures that shall include:

(1) Reference in the general plan of the location of identified mineral deposits, and a discussion of those areas targeted for conservation and possible future extraction by the lead agency.

(2) Use of overlay maps or inclusion of information on any appropriate planning maps to clearly delineate identified mineral deposits and those areas targeted by the lead agency for conservation and possible future extraction.

(3) At least one of the following:

(A) Use of special purpose overlay zones, mineral resource/open space zoning, or any other appropriate zoning that identifies the presence of identified mineral deposits and restricts the encroachment of incompatible land uses in those areas that are to be conserved.

(B) Record, on property titles in the affected mineral resource areas, a notice identifying the presence of identified mineral deposits.

(C) Impose conditions upon incompatible land uses in and surrounding areas containing identified mineral deposits for the purpose of mitigating the significant land use conflicts prior to approving a use that would otherwise be incompatible with mineral extraction."

APPENDIX C

San Gabriel Valley Production-Consumption Region Amended Regulations

APPENDIX C

San Gabriel Production-Consumption Region Designation Regulations

Section 3550.5. San Gabriel River, Eaton Wash, Devils Gate, and Palos Verdes Areas of the San Gabriel Valley Region, Los Angeles, County.

A set of maps identifying the exact locations of the designated areas, entitled "*Updated Designation of Regionally Significant Construction Aggregate Resources in the Northern San Gabriel Production-Consumption Regions, Los Angeles County, California, and Updated Designation of Regionally Significant Construction Aggregate Resources in the Eaton Wash, Devils Gate Reservoir, and Palos Verdes Areas, San Gabriel Production-Consumption Region, Los Angeles County, California*" is incorporated by reference into this regulation. The areas for designation or termination of designation are shown on the two Plates (2013). These maps are available from the State Mining and Geology Board's office in Sacramento.

The construction aggregate deposits in the following areas have been designated as being of regional significance:

Sector A – Offstream and instream deposits of the San Gabriel River below Morris Dam near Azusa.

Sector B – Instream deposit consisting of the flood control channel of the San Gabriel River upstream of Foothill Boulevard near Azusa.

Sector C – Instream deposits in a portion of the Santa Fe Flood Control Basin and spillway channel near Irwindale.

Sector D – Offstream and instream deposits in the western portion of the San Gabriel River Fan near Baldwin Park and Arcadia.

Sector E – Offstream deposits in the eastern portion of the San Gabriel River Fan in Irwindale.

Sector F – Instream deposits of Eaton Wash located in the Eaton Wash Flood Control Basin.

Sector H – Instream deposits of Arroyo Seco in the Devils Gate Reservoir area.

Sector I – Hillside deposit in the Palos Verdes Hills on Narbonne Avenue in Bent Springs Canyon.

Sector J – Hard rock deposits in the San Gabriel Mountains northeast of San Gabriel Creek in the City of Azusa.

Sector K – Offstream deposits in the eastern portion of the San Gabriel River Fan in Irwindale.

Sector L - Offstream deposits in the eastern portion of the San Gabriel River Fan in Irwindale.

Sector M – Offstream and instream deposits in the western portion of the San Gabriel River Fan near Baldwin Park and Arcadia.

Sectors identified for termination of designated status because of high-value incompatible land use developments.

Sector A (263 acres): There are six separate areas that are now incompatible with mining. Forty-three million tons of resources in these areas have been lost because of urbanization and 24 million tons of resources have been lost because of landfill operations.

Sector B (12 acres): There is one area that has become incompatible with mining. Eight million tons of resources have been lost to urbanization.

Sector C (42 acres): There are two areas that have become incompatible with mining. Thirty-six million tons of resources have been lost to urbanization.

Sector D (391 acres): There are eleven areas that are now incompatible with mining. Fifty-two million tons of resources have been lost to urbanization and 64 million tons of resources have been lost because of landfill operations.

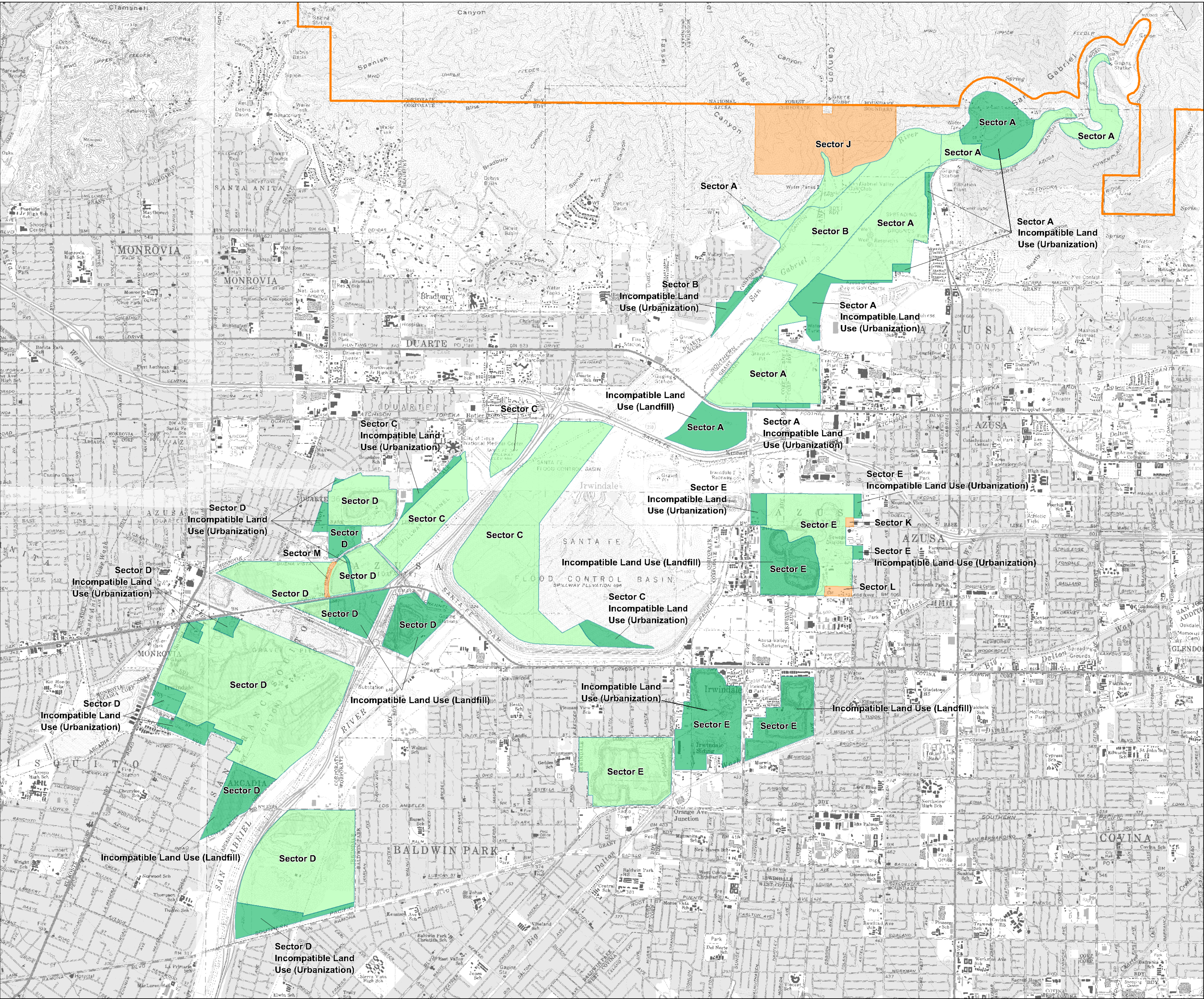
Sector E (422 acres): There are six areas that have become incompatible with mining. Fourteen million tons of resources have been lost to urbanization, and 179 million tons of resources have been lost to landfill operations.

Sector I (104 acres): There are two areas that have become incompatible with mining. Fifteen million tons of resources have been lost to landfill operations.

NOTE

Authority cited: Section 2790, Public Resources Code. Reference: Sections 2726, 2761-2763, 2790-2791, and 2793, Public Resources Code.

Plates

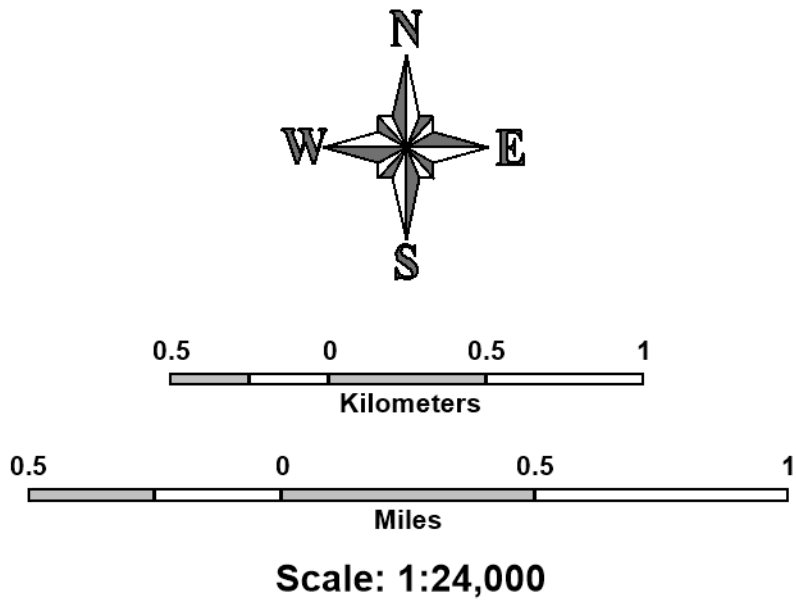


State Mining and Geology Board

Updated Designation of Regionally Significant Construction Aggregate Resources in the Northern San Gabriel Production-Consumption Region, Los Angeles County, California

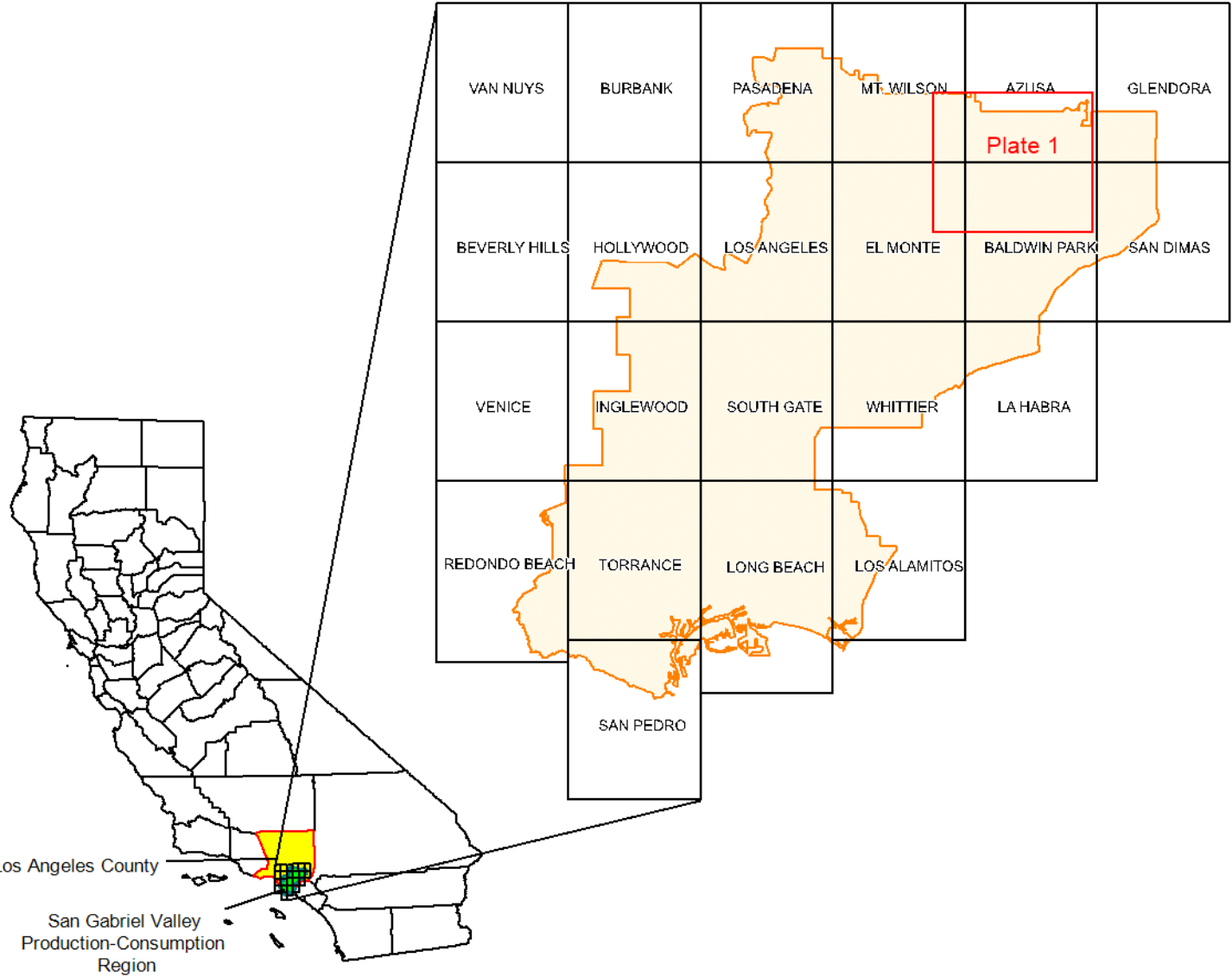
2013

Prepared in compliance with the Surface Mining and Reclamation Act of 1975, Article 4, Section 2790



LEGEND

- Boundary of San Gabriel Valley Production-Consumption Region.
- Sectors designated by the State Mining and Geology Board (1984) as containing regionally significant PCC-grade aggregate resources.
- New Sectors designated by the State Mining and Geology Board as containing regionally significant PCC-grade aggregate resources.
- Areas within Sectors with Land Uses Incompatible with Mining.



Index of U.S.G.S. 7.5 Minute Quadrangles



Map Sources (Digital GIS Layers):
7.5-Minute Topographic Quadrangles: U.S. Geological Survey

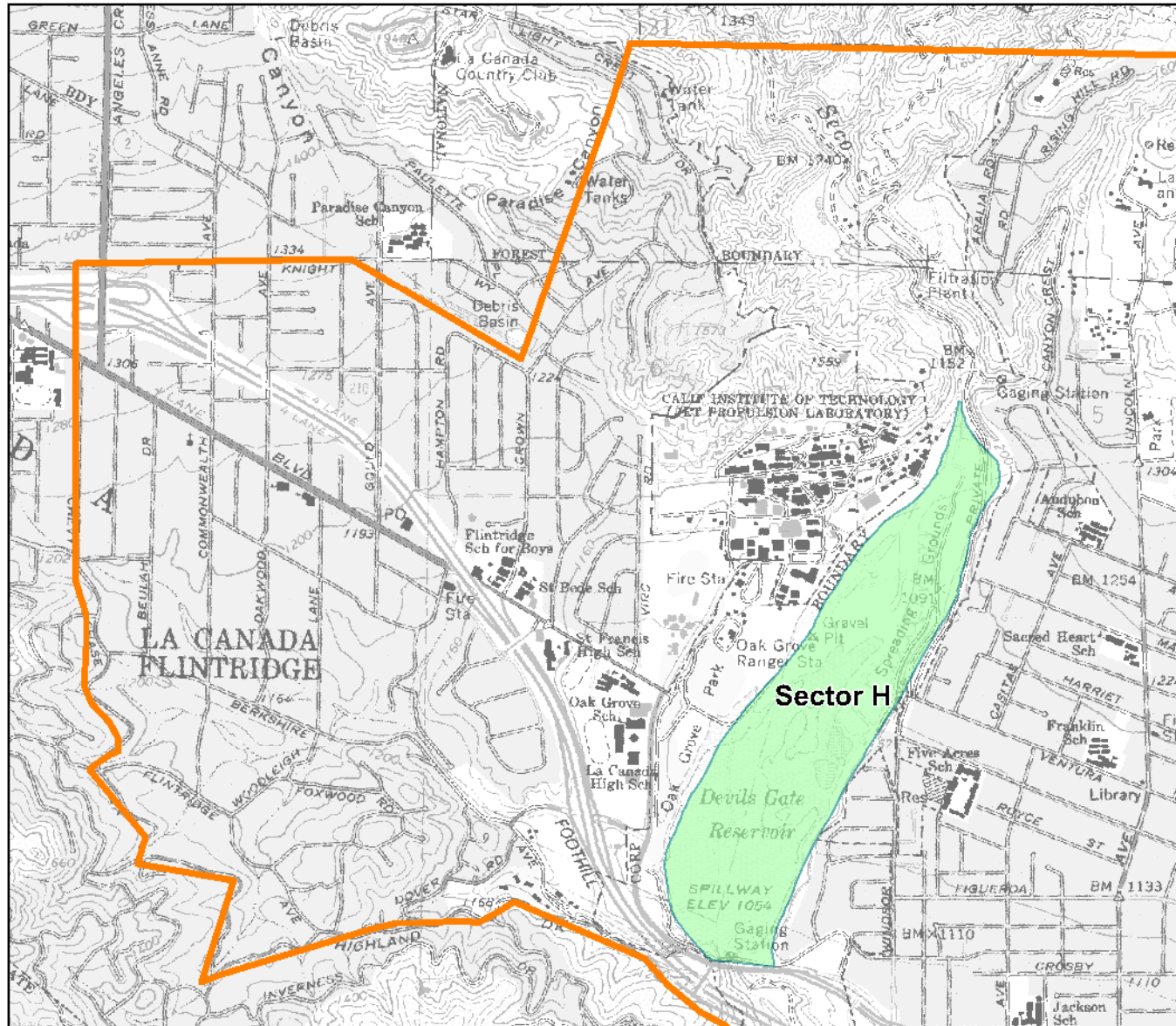
State Mining and Geology Board Web Site:
<http://www.conservation.ca.gov/SMGB/Pages/Index.aspx>

State Mining and Geology Board

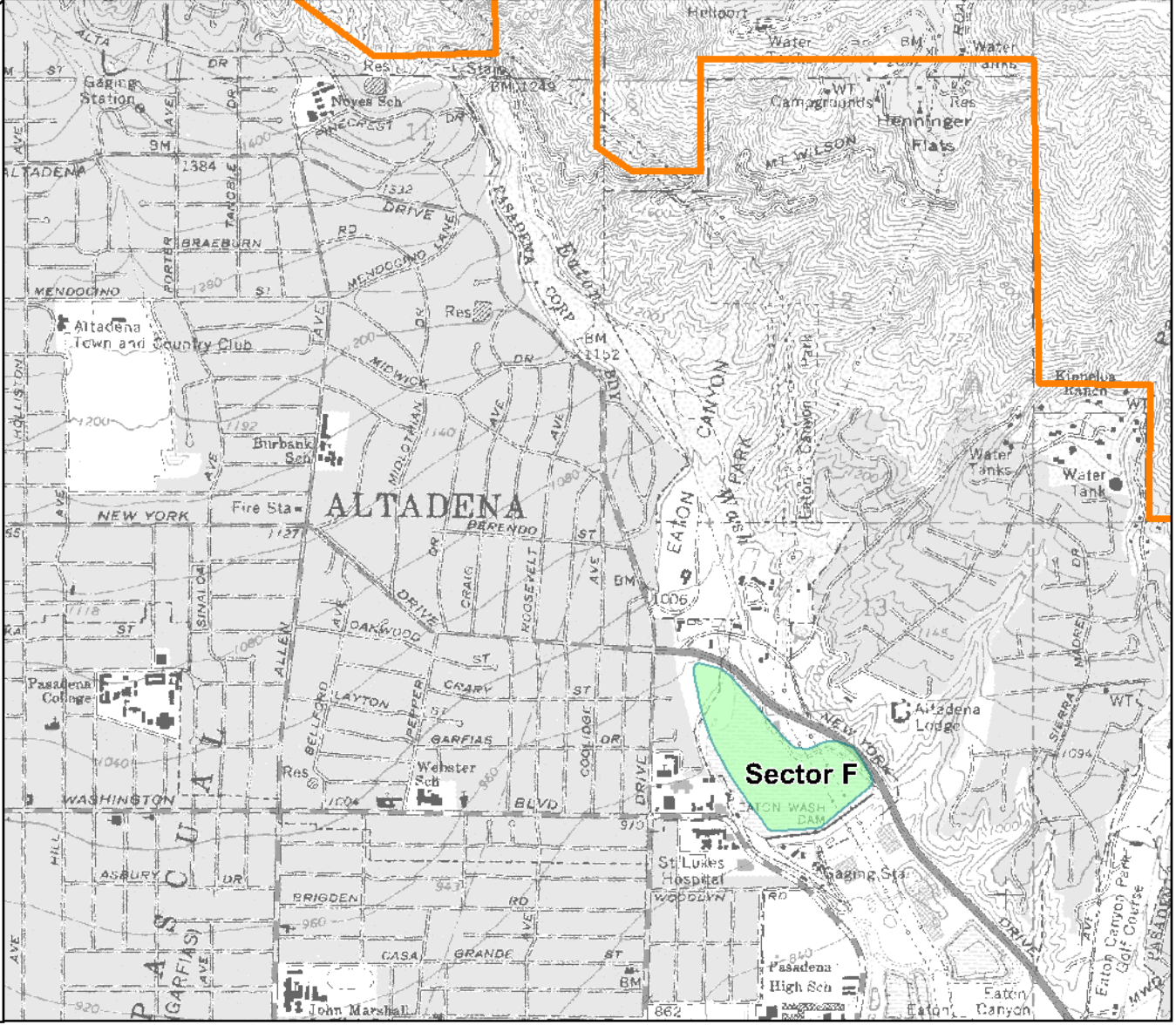
Updated Designation of Regionally Significant Construction Aggregate Resources in the Eaton Wash, Devils Gate Reservoir, and Palos Verdes Areas, San Gabriel Production-Consumption Region, Los Angeles County, California

2013

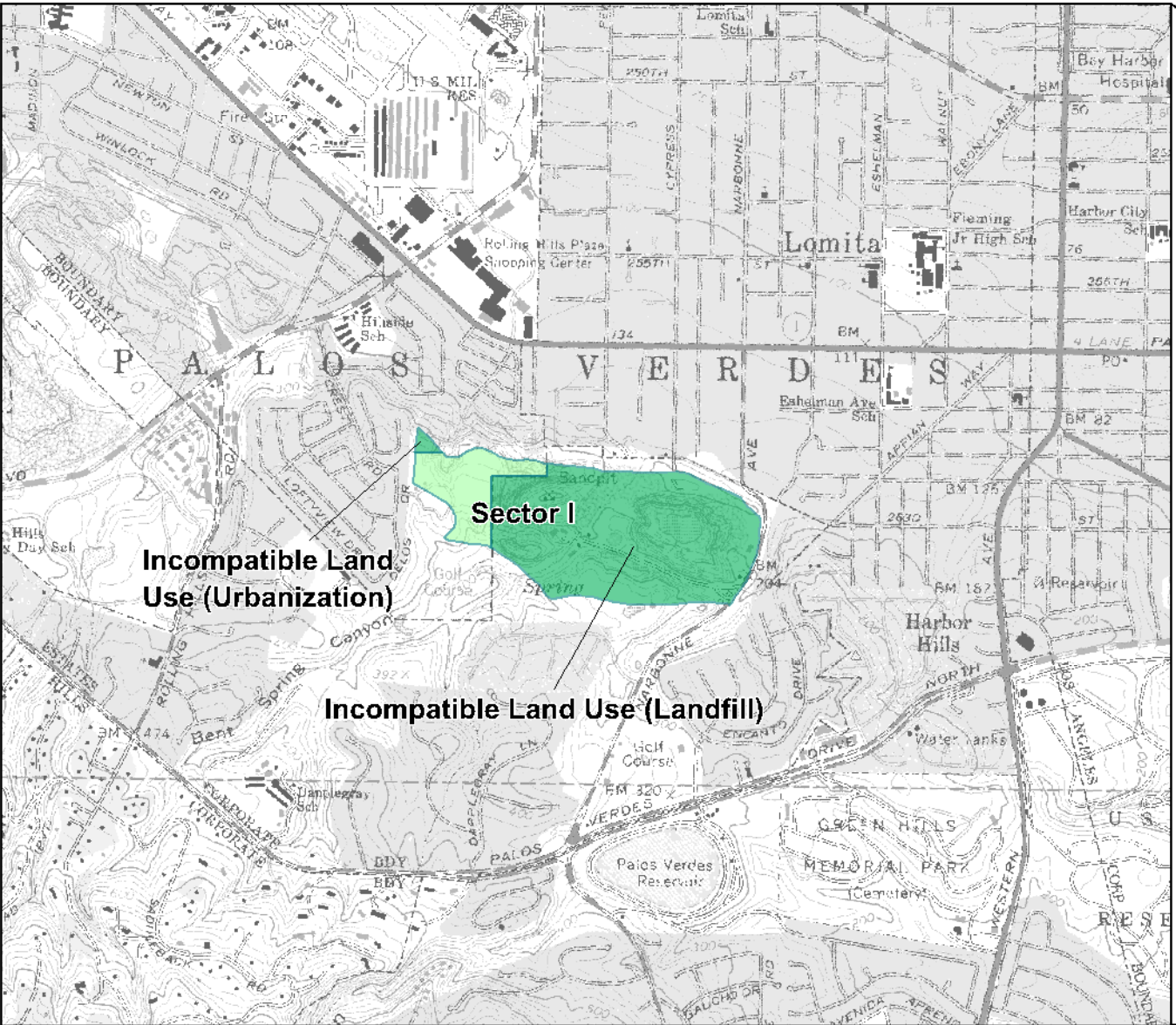
Prepared in compliance with the Surface Mining and Reclamation Act of 1975, Article 4, Section 2790



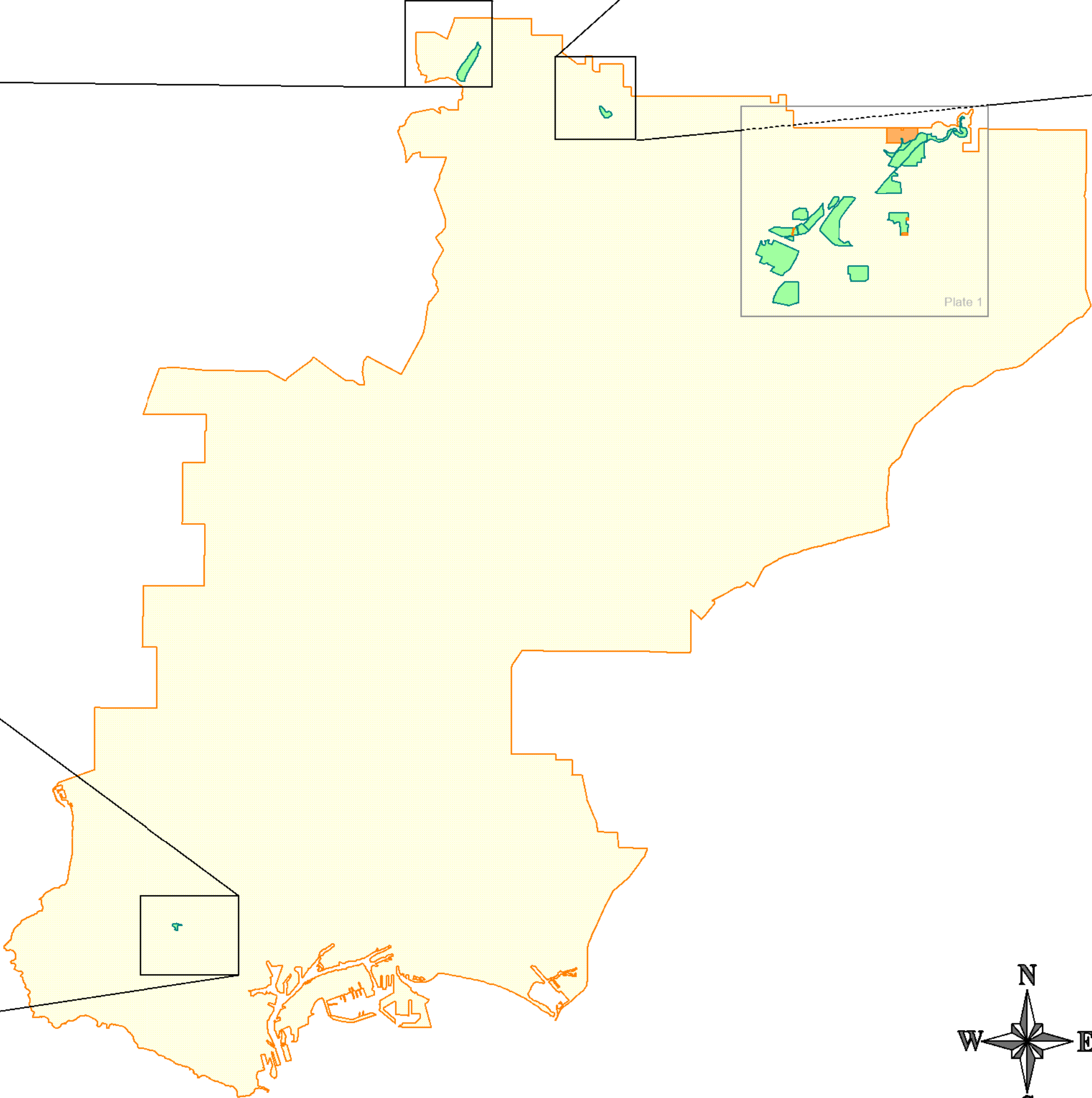
Location of Devils Gate Reservoir (Sector H) Within San Gabriel Valley Production-Consumption Area (Scale 1:24,000)



Location of Eaton Wash (Sector F) Within San Gabriel Valley Production-Consumption Area (Scale 1:24,000)

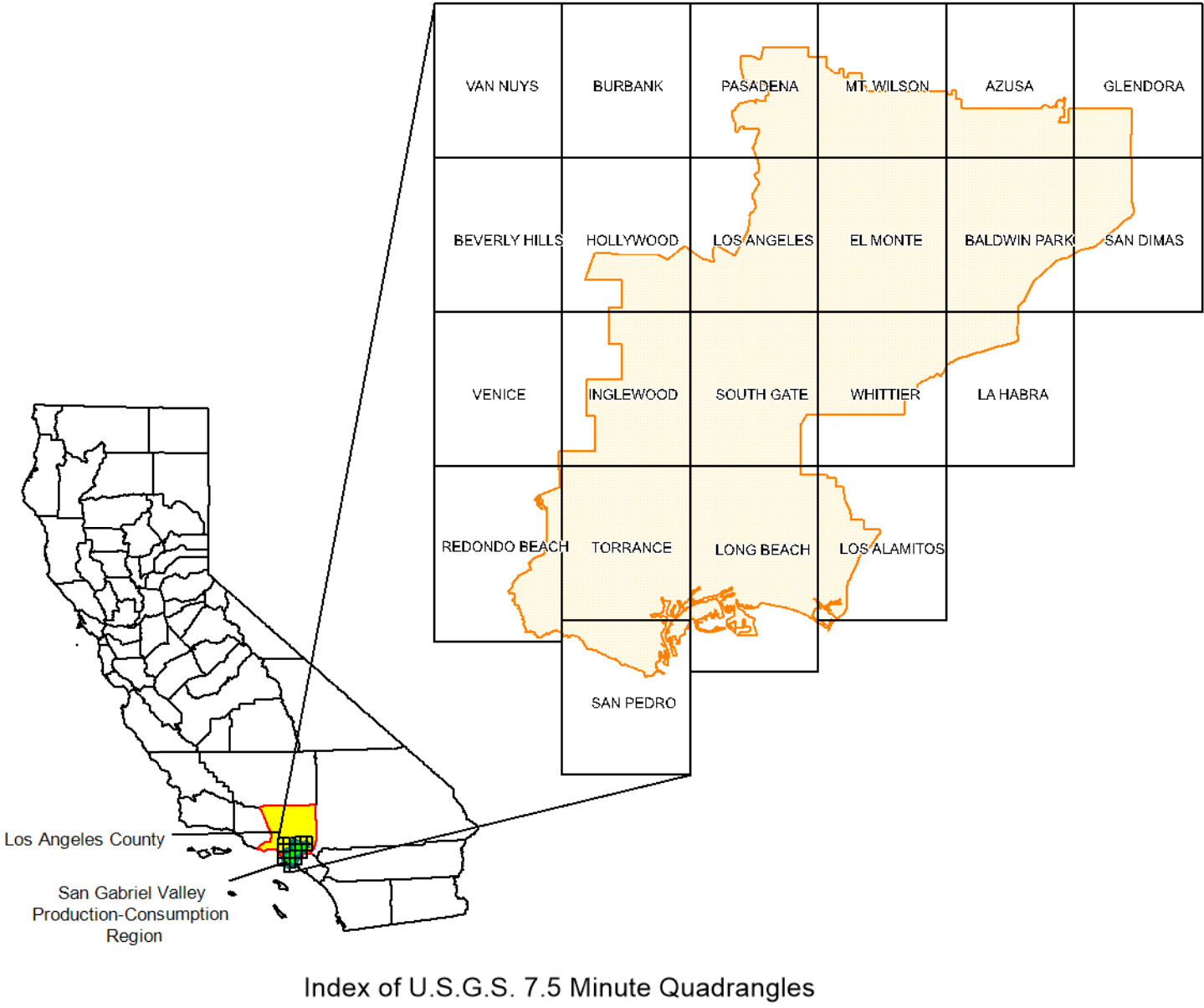
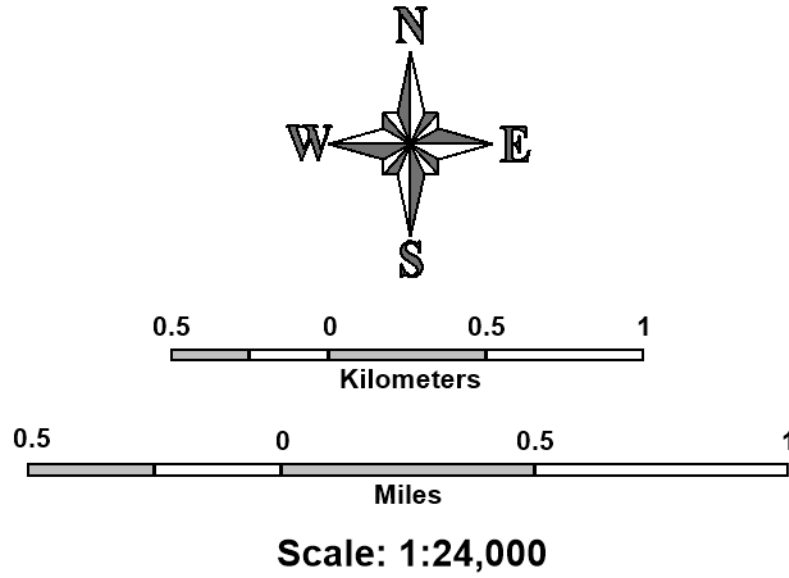


Location of Palos Verdes (Sector I) Within San Gabriel Valley Production-Consumption Area (Scale 1:24,000)



LEGEND

- Boundary of San Gabriel Valley Production-Consumption Region.
- Sectors designated by the State Mining and Geology Board as containing regionally significant PCC-grade aggregate resources.
- Areas within Sectors with Land Uses Incompatible with Mining.



Map Sources (Digital GIS Layers):
7.5-Minute Topographic Quadrangles: U.S. Geological Survey

State Mining and Geology Board Web Site:
<http://www.conservation.ca.gov/SMGB/Pages/Index.aspx>