



State Mining and Geology Board

Annual Report

2013-2014



Department of Conservation
Natural Resources Agency

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Governor
State of California

John Laird
Secretary
Natural Resources Agency

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Director
Department of Conservation

Cover Photo: Sonora Pit in Mono County – one of the highest elevation active surface mining operations in the State of California. (Photo credit: Will Arcand)

**ANNUAL REPORT
of the
STATE MINING AND GEOLOGY BOARD
2013-2014**

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ANNUAL REPORT of the STATE MINING AND GEOLOGY BOARD 2013-2014

EXECUTIVE SUMMARY

The 2013-2014 *Annual Report of the State Mining and Geology Board* is prepared for both the State Legislature and the Governor, as is provided for in statute [ref. Public Resources Code (PRC) Sections 674 and 2717]. Reporting periods follow the State's fiscal year calendar from July 1st of one year to June 30th of the following year. This Report summarizes activities and actions set forth by the State Mining and Geology Board (SMGB) during the 2013-2014 reporting period, and also conclusions and recommendations where the SMGB believes improvements can be made for the future well-being of the State's people and wise use of its natural resources, and understanding of the State's geologic hazards.

The SMGB, in concert with the Department of Conservation (DOC), the California Geological Survey (CGS) and the Office of Mine Reclamation (OMR), and its stakeholders, has been fully engaged in implementing the legislative mandates of the Alquist-Priolo Earthquake Fault Zoning Act (A-P EFZ Act), the Seismic Hazards Mapping Act (SHMA), and the Surface Mining and Reclamation Act of 1975 (SMARA).

The A-P EFZ Act was signed into law following the destructive 1971 San Fernando earthquake. The intent of the A-P EFZ Act is to insure public safety by prohibiting the siting of most structures for human occupancy across the traces of active surface faults. Two new preliminary maps were released by CGS during the 2013-2014 reporting period: the Azusa Quadrangle and the Hollywood Quadrangle. The SMGB held two hearings to receive comments and hear technical discussions regarding these preliminary maps.

The SHMA was enacted to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failures and hazards caused from earthquakes. SHMA programs and mandates closely resemble those of the A-P EFZ Act. No new Preliminary Seismic Hazard Zone Maps were released by CGS for review and comment during the 2013-2014 reporting period.

SMARA has been amended 30 times since its enactment in 1975. SMARA-related activities again occupied the majority of the SMGB's time and resources during the 2013-2014 reporting period. Local lead agencies (cities and counties with surface mines within their jurisdictions) have primary responsibility for implementing SMARA. Each of these lead agencies must have a surface mining ordinance certified by the SMGB as being in accordance with SMARA. There currently are 113 SMARA lead agencies in California. At the end of this reporting period, the SMGB served as a lead agency under SMARA for three counties, ten cities, and eight marine dredging operations within the jurisdiction of the San Francisco Bay Conservation and Development Commission (BCDC). Based on review of OMR Lead Agency Review Team (LART) reports, the SMGB issued 45-Day Notices to Correct Deficiencies to three counties.

During the reporting period the SMGB also conducted SMARA inspections at two surface mine sites within other lead agency jurisdictions where a potential financial conflict of interest exists between the mine owner/operator and the local lead agency.

The SMGB is responsible for reviewing and accepting mineral resource lands classification reports prepared by CGS, and for designating such lands as regionally significant. No new classification reports, updated classification reports, or classification petitions were reviewed, and subsequently accepted by the SMGB, during this reporting period. The SMGB also reviews and re-certifies updated mining ordinances and recognizes Mineral Resource Management Plans (MRMP). One amended surface mining ordinance was recertified; whereas, no new or amended MRMPs were recognized by the SMGB during this reporting period. The SMGB also held hearings for one financial assurance appeal and one designation appeal.

No Orders to Comply as issued by the Director were appealed to the SMGB. Three administrative penalties as issued by the Director for failure to submit a 2012 Mining Operation Annual Report and reporting fee were appealed to the SMGB. Four requests for consideration of an exemption from SMARA were considered by the SMGB.

The SMGB continued its evaluation of various aspects of SMARA including areas where SMARA could be streamlined and where the SMGB or the DOC could assist SMARA lead agencies in their implementation of the mineral conservation and reclamation components of SMARA. The SMGB restates in its Observations and Recommendations section of this report where it believes the Legislature could address specific elements of SMARA to increase efficiency and effectiveness in carrying out the stated intentions of the statute. The SMGB also recognizes need for amendment and changes to the A-P EFZ Act and SHMA, in order to provide a more effective public review and comment administrative process, among other considerations.

Stephen M. Testa
Executive Officer

**STATE MINING AND GEOLOGY BOARD
ANNUAL REPORT FOR 2013 – 2014**

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INTRODUCTION

ORGANIZATION AND RESPONSIBILITIES OF THE SMGB

The *State Mining and Geology Board* (SMGB) was established in 1885 as the *Board of Trustees*. Its purpose was to oversee the activities of the State Mineralogist and the Bureau of Mines (formerly the Division of Mines and Geology, and now the California Geological Survey (CGS)), and the State's geological survey, which were created by the Legislature five years earlier. The general policy for CGS is established by the SMGB. These responsibilities recognize the impacts that California's complex geology, large amounts of federally managed lands, high mineralization, and potential for geologic hazards have on the State's economy, land use, and public safety.

Today's SMGB is composed of nine members appointed by the Governor, and confirmed by the Senate, for four-year staggered terms. By statute, SMGB members must have specific professional backgrounds in geology, mining engineering, environmental protection, groundwater hydrology and rock chemistry, urban planning, landscape architecture, mineral resource conservation, and seismology, with one non-specialized member representing the general public. During this annual reporting period, the groundwater hydrology and rock chemistry seats became vacant, and the landscape architecture seat has remained vacant since January 2011.

To enable the SMGB to meet its responsibilities most effectively, it has established standing committees to gather information and formulate recommendations on a variety of topics. These committees include the Geohazards Committee, the Mineral and Geologic Resources Committee, the Policy and Legislation Committee, and the Surface Mining Standards Committee. The full SMGB, and these committees, meet in regularly scheduled sessions on a monthly or as-needed basis.

The SMGB has one active advisory group which is the Alquist-Priolo Technical Advisory Committee (A-P TAC). This subcommittee reports to the SMGB through the Geohazards Committee, and is involved with considering current knowledge in engineering and the geological sciences, and their impact on the A-P EFZ Act. The subcommittee is composed of 16 professional members with various scientific, engineering, governmental, and business specialties. The subcommittee members are part time, and are not paid for their services. Since 2007 the A-P TAC has met on nine occasions. The Executive Officer has been delegated the responsibility to prepare a report based on discussions of the A-P TAC, which remains in process. Upon completion, the report will be reviewed by the A-P TAC and the report, including recommendations, will be forwarded to the Geohazards Committee for consideration.

The SMGB is housed within the Department of Conservation (DOC), and is granted certain autonomous responsibilities and obligations under several statutes. The SMGB's general authority is granted under Public Resources Code (PRC) Sections 660-678 (Appendix A). Specifically, PRC Section 662(b) requires all SMGB members to "*represent the general public interest*". The SMGB serves as a regulatory, policy and appeals body representing the State's interests in geology, geologic and seismologic hazards, conservation of mineral resources and reclamation of lands following surface mining activities.

Pursuant to PRC Section 672, general policies for the CGS are determined by the SMGB. Pursuant to PRC Section 677, the SMGB also nominates, and the director appoints, the State Geologist, who shall either be registered in compliance with the Geologist and Geophysicist Act at least one year from the date of appointment, or the Board for Professional Engineers, Land

Surveyors, and Geologists may, upon the review of academic and professional experience, grant registration. The State Geologist possess general knowledge of mineral resources, structural geology, seismology, engineering geology, and related disciplines in science and engineering, and the reclamation of mined lands and waters. The State Geologist also advises the director regarding technical, scientific, and engineering issues, including the scientific quality of CGS's products and activities.

SURFACE MINING AND RECLAMATION ACT OF 1975

Extraction of minerals in a responsible manner is essential to the continued economic well-being of the State and to the needs of society, and the thoughtful reclamation of mined lands is necessary to prevent or minimize adverse effects on the environment and to protect the public health and safety.

Under SMARA, the SMGB is authorized and directed to represent the State's interests in the development, utilization, and conservation of the State's mineral resources, the reclamation of mined lands, and federal matters pertaining to surface mining within the State.

Principal populations served:

- 113 "Lead Agencies" (counties and cities), with authority over surface mining operations within their jurisdictions;
- 1,273 reporting surface mining operations within the State as of 2012;
- Department of Conservation's Office of Mine Reclamation; and
- Department of Conservation's California Geological Survey.

Pursuant to PRC Section 672, the SMGB also represents the state's interest in federal matters pertaining to mining, and shall determine, establish, and maintain an adequate surface mining and reclamation policy.

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

Pursuant to PRC Section 672, the SMGB represents the state's interest in the development of geological information necessary to the understanding and utilization of the state's terrain, and seismological and geological information pertaining to earthquake and other geological hazards. Under the A-P EFZ Act, the SMGB is authorized and directed to represent the State's interests in establishing professional guidelines and standards for geological and geophysical investigations and reports produced by CGS, public sector agencies, and private practitioners. The SMGB is also authorized to develop specific criteria through regulations that shall be used by affected lead agencies in complying with the provisions of the A-P EFZ Act so as to protect the health, safety and welfare of the public.

The A-P EFZ Act (PRC Chapter 7.5, Section 2621 through Section 2630) is intended to provide policies and criteria to assist cities, counties and State agencies in the exercise of their responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults as defined by the SMGB. Further, it is the intent of the A-P EFZ Act to provide the citizens of the State with increased safety and to minimize the loss of life during and immediately following earthquakes by facilitating seismic retrofitting to strengthen buildings, including historical buildings, against ground shaking.

Principal populations served:

- 140 "Lead Agencies" (counties and cities), are affected by the A-P EFZ Act within their jurisdictions - City, county and State agencies having jurisdictions over zoning ordinances, building codes, and general plan developments;
- Land developers and contractors;
- California Geological Survey; and
- Professional geological, geophysical, and engineering consulting community.

SEISMIC HAZARDS MAPPING ACT

Under the SHMA, the SMGB is authorized to provide policy and guidance through regulations for a statewide seismic hazard mapping and technical advisory program to assist cities, counties, and State agencies in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction or other ground failure, landslides and other seismic hazards caused by earthquakes, including tsunami and seiche threats.

The SHMA (PRC Chapter 7.8, Section 2690 through Section 2699.6) establishes the authority to provide programs to identify and map seismic hazard zones in the State so that cities and counties can adequately prepare the safety element of their general plans, and to encourage land use management policies and regulations that reduce and mitigate those hazards so as to protect public health and safety.

Principal populations served:

- 106 "Lead Agencies" (counties and cities) are affected by the SHMA within their jurisdictions - City, county and State agencies having jurisdictions over zoning ordinances, building codes, and general plan developments;
- Land developers and contractors;
- California Geological Survey; and
- Professional geological, geophysical, and consulting community.

MISSION STATEMENT

"The mission of the State Mining and Geology Board is to represent the State's interest in the development, utilization and conservation of mineral resources; reclamation of mined lands; development and dissemination of geologic and seismic hazard information; and to provide a forum for public redress."

SMGB ACTIONS PURSUANT TO THE ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act (A-P EFZ Act - PRC Sections 2621 et seq.) provides for the mapping by CGS (formerly referred to as the Division of Mines and Geology, or DMG) of "Earthquake Fault Zones" along the surface traces of active faults in California. Mapping is done according to policies established by the SMGB. These Earthquake Fault Zones Maps are provided to local governments for their land-use planning and decision making.

The A-P EFZ Act was signed into law following the destructive 1971 M_w 6.6 San Fernando earthquake. This law initially was designated as the Alquist-Priolo Geologic Hazards Zones Act. In May 1975 it was re-named the Alquist-Priolo Special Studies Zones Act. In January 1994, the Act was given its current name. Information regarding the A-P EFZ Act and an index of the mapped Earthquake Fault Zones is available in CGS Special Publication No. 42 (Revised 1997, with supplements added in 1999). A 2007 digital version is available at; <ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sp/Sp42.pdf>.

The intent of the A-P EFZ Act is to insure public safety by safeguarding certain new construction from the hazard of surface fault rupture. To this effect, the A-P EFZ Act prohibits the construction of most structures for human occupancy, as defined, across the trace of an active fault. Lead agencies (cities and counties) affected by these Zones must regulate certain construction developments within the Zones. Lead agencies must not issue development permits for sites located within Earthquake Fault Zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting.

Legislative Changes

SB 135 (Padilla) was passed which requires the Office of Emergency Services, in collaboration with various entities, including the United States Geological Survey, to develop a comprehensive statewide earthquake early warning system in California through a public-private partnership. The bill requires the system to include certain features, including the installation of field sensors. The bill requires the office to develop an approval mechanism, as provided, to review compliance with earthquake early warning standards as they are developed. The bill requires the office to identify funding sources for the system. The bill prohibits the office from identifying the General Fund as a funding source to establish the system, beyond those components or programs that are currently funded. The bill makes these provisions contingent upon the office identifying funding sources for the system, as provided. If no funding sources are identified by January 1, 2016, the bill would repeal these provisions.

Regulatory Changes

No new or amended regulations was considered during the 2013-2014 annual reporting period.

Program Status

In California, there are about 150 named faults with Holocene displacement. This is a minimum number because it is based on the naming of fault zones, not individual faults. The amount of actual land surface covered by clearly mapped active fault zones is on the order of 0.0089 percent (or 1,381 square miles) of the total land surface of California; the actual area that is unbuildable is much less. These zones are typically 1,000 feet in width (0.189 mile), but in practice are usually greater, with an average width of 0.306 miles. The total linear miles of zoned active faults in California is about 4,500.

As of June 2014, 557 Official maps of Earthquake Fault Zones had been issued by CGS. Of these, 161 have been revised since their initial issue, and four maps have been withdrawn. Thirty-six counties and 103 cities are affected by the existing Earthquake Fault Zones (Table 1). CCR Section 3603(f) requires lead agencies to file copies of geologic reports of fault studies with the State Geologist within 30 days following the report's approval. New and revised maps are displayed in a new format. The updated graphical representation shows the location of AP Earthquake Fault Zones and Seismic Hazard Zones (if evaluated), and is collectively referred to as Earthquake Zones of Required Investigation. An electronic version of the zone maps, referred to as a geo-pdf file, is accessible on CGS's website and can be viewed using Adobe Acrobat Reader. A summary of Earthquake Fault Zones maps published since July 1, 2000, is presented in Table 2.

Two new preliminary maps were released during the 2013-2014 reporting period: the Azusa Quadrangle and the Hollywood Quadrangle. CGS announced release of the Preliminary Map of Proposed Earthquake Fault Zones for the Azusa Quadrangle, and accompanying Fault Evaluation Report FER-249 titled "*The Sierra Madre Fault Zone in the Azusa 7.5' Quadrangle, Los Angeles County, California*", on January 8, 2014. The release of the map commenced the 90-day public comment period. The SMGB held a public hearing on March 12, 2014, to receive comments and hear oral technical discussion. The public comment period ended on April 8, 2014.

CGS also announced release of the Preliminary Map of Proposed Earthquake Fault Zones on January 8, 2014, for the Hollywood Quadrangle. The accompanying Fault Evaluation Report FER-253 titled "*The Hollywood Fault Zone in the Hollywood 7.5' Quadrangle, Los Angeles County, California*" was released on February 14, 2014. The release of the map commenced the 90-day public comment period. The SMGB conducted a public hearing on March 13, 2014, to receive comments and hear oral technical discussion regarding the map under discussion, and accepted comment up to May 15, 2014. The Earthquake Fault Zone Map for the Hayward Quadrangle Revised Official Map Effective September 21, 2012, is shown in Figure 1.

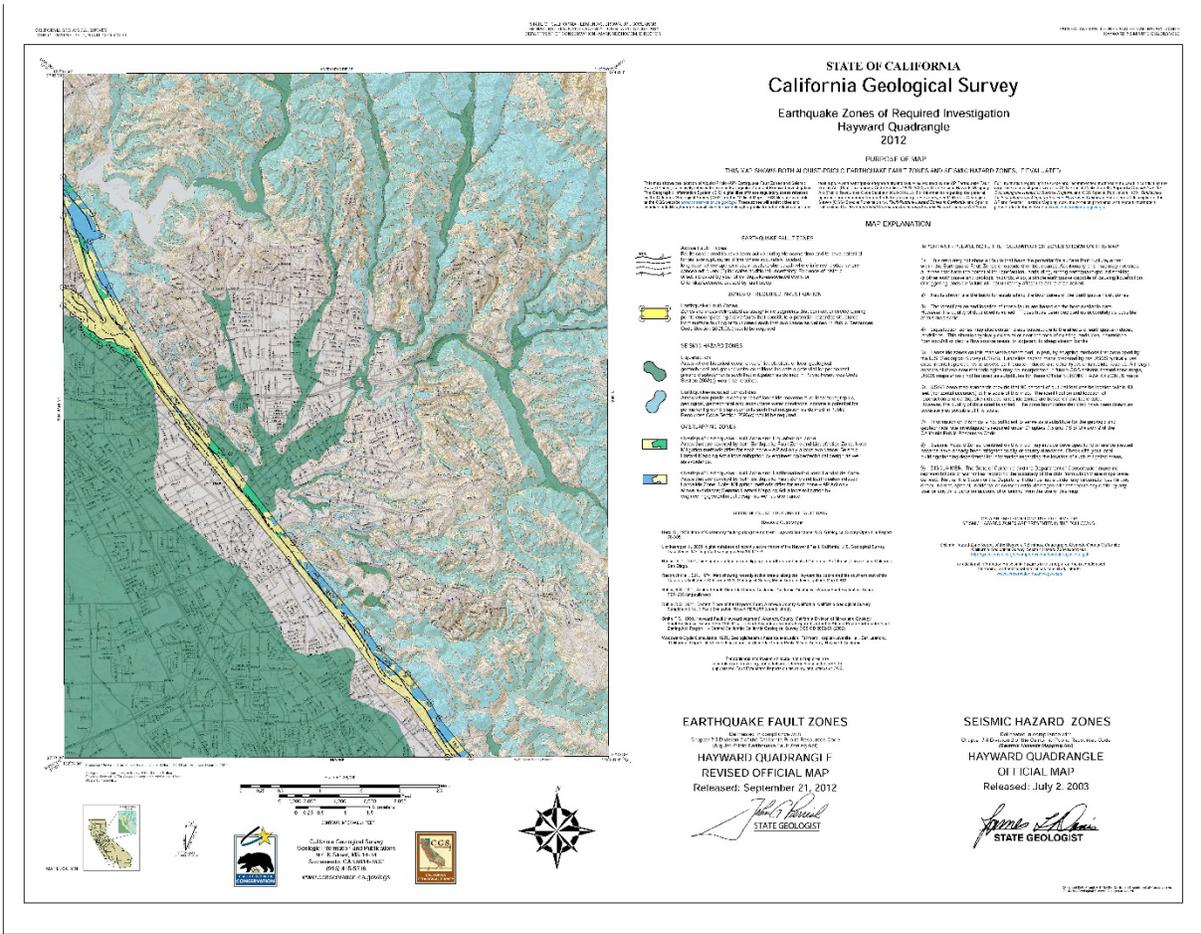


Figure 1. Earthquake Fault Zone Map for the Hayward Quadrangle Revised Official Map Effective September 21, 2012, reflecting updating of A-P EFZ map.

The A-P EFZ Act affects 104 Cities and 36 Counties as illustrated in Table 1.

Table 1 Cities and Counties Affected by Earthquake Fault Zones as of June 30, 2014			
Cities (103)			Counties (36)
American Canyon	Hemet	San Bruno	Alameda
Arcadia	Highland	San Diego	Alpine
Arcata	Hollister	San Fernando	Butte
Arvin	Huntington Beach	San Jacinto	Contra Costa
Bakersfield	Indio	San Jose	Fresno
Banning	Inglewood	San Juan Bautista	Humboldt
Barstow	La Habra	San Leandro	Imperial
Beaumont	La Habra Heights	San Luis Obispo	Inyo
Benicia	Lake Elsinore	San Marino	Kern
Berkeley	Livermore	San Pablo	Lake
Bishop	Loma Linda	San Ramon	Lassen
Brea	Long Beach	Santa Clarita	Los Angeles
Calimesa	Los Angeles	Santa Rosa	Marin
Camarillo	Malibu	Seal Beach	Mendocino
Carson	Mammoth Lakes	Signal Hill	Merced
Cathedral City	Milpitas	Simi Valley	Modoc
Chino Hills	Monrovia	South Pasadena	Mono
Coachella	Moorpark	South San Francisco	Monterey
Colton	Moreno Valley	Temecula	Napa
Compton	Morgan Hill	Trinidad	Orange
Concord	Murrieta	Twentynine Palms	Riverside
Corona	Oakland	Union City	San Benito
Coronado	Pacificia	Upland	San Bernardino
Culver City	Palmdale	Ventura (San Buenaventura)	San Diego
Daly City	Palm Springs	Walnut Creek	San Luis Obispo
Danville	Palo Alto	Whittier	San Mateo
Desert Hot Springs	Pasadena	Willits	Santa Barbara
Dublin	Pleasanton	Windsor	Santa Clara
El Cerrito	Portola Valley	Woodside	Santa Cruz
Fairfield	Rancho Cucamonga	Yorba Linda	Shasta
Fontana	Redlands	Yucaipa	Siskiyou
Fortuna	Rialto	Yucca Valley	Solano
Fremont	Richmond		Sonoma
Gardena	Ridgecrest		Stanislaus
Glendale	Rosemead		Ventura
Hayward	San Bernardino		Yolo

Under the A-P EFZ Act, there is a 90-day review period upon the issuance of Preliminary Earthquake Fault Zone Maps by the State Geologist, and the SMGB conducts a public hearing within the affected lead agencies to receive technical comments about the maps (Table 2). These comments are reviewed and considered by the SMGB. Subsequent to such review and consideration, the SMGB forwards their comments and recommendations to the State Geologist

for consideration prior to finalization of the Official Earthquake Fault Zone Map. The approval of a project by a city or county must be in accordance with the policies and criteria submitted to and approved by the SMGB.

The policy and criteria of the SMGB, with reference to the Alquist-Priolo Earthquake Fault Zoning Act, provides an administrative procedure for the receipt of public comments regarding new or revised preliminary earthquake fault zone maps.

Pursuant to the California Code of Regulations (CCR), Article 10, Section 3602(a):

“Within 45 days from the issuance of proposed new or revised preliminary earthquake fault zone map(s), cities and counties shall give notice of the Board’s announcement of a ninety (90) day public comment period to property owners within the area of the proposed zone.”

Pursuant to CCR, Article 10, Section 3206(c):

“The Board shall receive public comments during the 90-day public comment period. The Board shall conduct at least one-public hearing on the proposed zone map(s) during the 90-day public comment period.”

Pursuant to CCR, Article 10, Section 3206(d):

“Following the end of the 90-day public comment period, the Board shall forward its comments and recommendations with supporting data received to the State Geologist for consideration prior to the official earthquake fault zone map(s).”

Public Resources Code (PRC) Section 3722(b) further states *“Following the end of the review period, the Board shall forward its comments and recommendations, with supporting data received, to the State Geologist for consideration prior to revision and official issuance of the maps.”* No new Preliminary Maps of Proposed Earthquake Fault Zones were published during this annual reporting period.

Table 2
Summary of Public Hearings on Preliminary Earthquake Fault Zone Maps
Held by SMGB since 2000

Quadrangle	Affected Cities and Counties	Number of Preliminary Maps	SMGB Public Hearing Date
Corona North and Corona South Quadrangles (City of Corona), Deadman Lake NW, Deadman Lake SE, Deadman Lake SW, Hector, Hidalgo Mountain, Lavic Lake, Lavic Lake SE, Morgan's Well, Sleeping Beauty, Sunshine Peak, and Prado Dam Quadrangle (San Bernardino County), and Point Loma Quadrangle (San Diego County).	City of Corona, and San Bernardino and San Diego Counties.	14	1/16/2003
Malibu Beach Quadrangle (Los Angeles County)	Los Angeles County	1	2/16/2007
Carrizo Mountain, Coyote Wells, Durmid, Hayward, Mecca, Mortmar, Mount Signal, Orocopia Canyon, Painted Gorge, Piru, Plaster City, Salton, and Yuha Basin.	Cities of Hayward, Oakland, and San Leandro; Counties of Alameda, Imperial, San Diego, Riverside and Ventura.	13	5/10/2012
Azusa	Los Angeles	1	3/12/2014
Hollywood	City of Los Angeles	1	3/13/2014

SMGB ACTIONS PURSUANT TO THE SEISMIC HAZARDS MAPPING ACT

The Seismic Hazards Mapping Act (SHMA) became effective on April 1, 1991, and created a statewide seismic hazards mapping and technical advisory program to assist cities and counties in fulfilling their responsibilities for protecting the public's health and safety from the effects of strong ground shaking, liquefaction or other ground failure, landslides, and other seismic hazards caused by earthquakes. Specifically, the SHMA requires the delineation of seismic hazard zones by CGS, site-specific geotechnical investigations for development projects within zones, and the disclosure by sellers to prospective buyers of lands located in seismic hazard zones.

CCR Sections 3723(a) and 3723(b) require the SMGB to provide an opportunity for receipt of public comments and recommendations during the 90-day period for review of preliminary seismic hazard zone maps provided by PRC Section 2696. At least one public hearing is scheduled for that purpose, and following the end of the review period, the SMGB forwards its comments and recommendations, with supporting data received, to the State Geologist for consideration prior to revision and official issuance of the maps.

Legislative Changes

No new or amended legislation was considered during the 2013-2014 annual reporting period.

Regulatory Changes

No new or amended regulations was considered during the 2013-2014 annual reporting period.

Program Status

Ten counties and 96 cities are affected by Seismic Hazard Zone Maps (Table 3). Between July 2000 and July 2013, 78 Official Seismic Hazard Zone Maps were released. Each map covers an area of approximately 60 square miles. Prior to the release of the Official maps, a Preliminary set of maps is released for public review and comment. The SMGB's Geohazards Committee, or in some cases the whole SMGB, conducts public hearings within the affected local jurisdictions to receive both general and technical comments on the maps. These comments are reviewed by the Committee and/or SMGB, and then forwarded to the State Geologist for consideration in preparing the final set of Official Maps. No new maps were issued during this annual reporting period.

No new Preliminary Seismic Hazard Zone Maps were released by CGS for review and comment during the 2013-2014 reporting period. The last map published by CGS on October 26, 2012 was for the Lick Observatory Quadrangle, Santa Clara County (Figure 2). New and revised maps are displayed in a new format. The updated graphical representation shows the location of AP Earthquake Fault Zones and Seismic Hazard Zones (if evaluated), and is collectively referred to as Earthquake Zones of Required Investigation. Electronic versions of the zone maps, referred to as a geo-pdf files, are accessible on CGS's website and can be viewed using Adobe Acrobat Reader. A summary of Lead Agencies affected by the Seismic Hazards Zone Maps are presented in Table 3. A summary of Public Hearings on Preliminary Seismic Hazards Maps held by SMGB since 2000 in presented in Table 4.

**Table 3
Lead Agencies Affected
By the Seismic Hazards Zone Maps**

Cities		Counties
Agoura Hills	Industry	Orange
Anaheim	Inglewood	Palos Verdes Estates
Arcadia	Irvine	Paramount
Artesia	Irwindale La	Pasadena
Azusa	Canada-Flintridge	Pico Rivera
Baldwin Park	La Habra	Placentia
Bell	La Habra Heights	Pomona
Bell Gardens	La Mirada	Rancho Palos Verdes
Bellflower	La Palma	Redondo Beach
Beverly Hills	La Puente	Rolling Hills
Brea	La Verne	Rolling Hills Estates
Buena Park	Laguna Beach	Rosemead
Burbank	Laguna Hills	San Dimas
Calabasas	Lakewood	San Fernando
Carson	Lomita	San Francisco
Cerritos	Long Beach	San Gabriel
Claremont	Los Alamitos	San Marino
Commerce	La Habra	Santa Ana
Compton	La Habra Heights	Santa Clarita
Corona	La Mirada	Santa Monica
Costa Mesa	La Palma	Seal Beach
Covina	La Puente	Sierra Madra
Cudahy	La Verne	Signal Hill
Culver City	Laguna Beach	Simi Valley
Cypress	Laguna Hills	South El Monte
Diamond Bar	Lakewood	South Gate
Downey	Lomita	South Pasadena
Duarte	Long Beach	Stanton
El Monte	Los Alamitos	Temple City
El Segundo	Los Angeles	Thousand Oaks
Fountain Valley	Lynwood	Torrance
Fullerton	Malibu	Tustin
Garden Grove	Manhattan Beach	Vernon
Gardena	Maywood	Villa Park
Glendale	Mission Viejo	Walnut
Glendora	Monrovia	West Covina
Hawaiian Gardens	Montebello	West Hollywood
Hermosa Beach	Monterey Park	Westlake Village
Hidden Hills	Moorpark	Westminster
Huntington Beach	Murrieta	Whittier
Huntington Park	Newport Beach	Yorba Linda
	Norwalk	

**Table 4
Summary of Public Hearings on Preliminary Seismic Hazards Maps
Held by SMGB since 2000**

Quadrangle	Affected Cities and Counties	Number of Preliminary Maps	SMGB Public Hearing Date
Oxnard (Ventura County), Malibu Beach (Los Angeles County), and San Juan Capistrano, and Dana Point Quadrangles (Orange County).	Los Angeles, Orange and Ventura Counties.	3	10/11/2001
San Clemente Quadrangle (Orange County), Santa Paula Quadrangle (Ventura County), and Mountain View Quadrangle (Santa Clara County).	Orange, Santa Clara and Ventura Counties.	3	3/14/2002
Fillmore, Ojai, Piru, Pitas Point, Saticoy, Oxnard Quadrangles (Ventura County), Val Verde Quadrangle (Los Angeles, and Ventura Counties), and Santiago Peak Quadrangle (Orange County).	Los Angeles, Orange and Ventura Counties.	8	11/14/2002
Richmond, Oakland East, Oakland West, Briones Valley, Hunters Point, and San Leandro Quadrangles (Alameda County).	Alameda County.	6	11/14/2002
Corona North and Corona South Quadrangles (City of Corona), Deadman Lake NW, Deadman Lake SE, Deadman Lake SW, Hector, Hidalgo Mountain, Lavic Lake, Lavic Lake SE, Morgan's Well, Sleeping Beauty, Sunshine Peak, and Prado Dam Quadrangle (San Bernardino County), and Point Loma Quadrangle (San Diego County).	City of Corona, San Bernardino and San Diego Counties.	14	1/16/2003
High Vista, Condor Peak, Agua Dulce, and Lovejoy Buttes Quadrangles (Los Angeles County), Matilija Quadrangle (Ventura County).	Los Angeles and Ventura Counties.	5	1/16/2003
Hayward, Mountain View, Newark, and Redwood Point Quadrangles (Alameda County), and the Ventura Quadrangle (Ventura County).	Alameda and Ventura Counties.	4	3/13/2003
Alpine Buttes, Lancaster East, Lancaster West, Littlerock, and Ritter Ridge Quadrangles (Los Angeles County), and Santa Teresa Hills Quadrangle (Santa Clara County).	Los Angeles and Santa Clara Counties.	6	4/4/2003
Acton and Pacifico Mountain Quadrangles (Los Angeles County).	Los Angeles County.	2	5/23/2003
Lake Hughes, Little Buttes, Del Sur, Rosamond, Sleepy Valley, Palmdale, Juniper Hills, Valyermo Quadrangles (Los Angeles County), and Santa Paula Peak Quadrangle (Ventura County).	Los Angeles and Ventura Counties.	9	7/10/2003
Milpitas and Niles Quadrangles (Alameda County), and Morgan Hill Quadrangle, (Santa Clara County).	Alameda and Santa Clara Counties.	3	6/10/2004
Alpine Butte, Del Sur, Lancaster East, Lancaster West, Rosamond Quadrangles (Los Angeles County).	Los Angeles County.	5	9/9/2004

Table 4 (Continued)
Summary of Public Hearings on Preliminary Seismic Hazards Maps
Held by SMGB since 2000

Quadrangle	Affected Cities and Counties	Number of Preliminary Maps	SMGB Public Hearing Date
Yorba Linda Quadrangle (Los Angeles, Orange, San Bernardino), Castle Rock Ridge Quadrangle (Santa Clara County), and Mindego Hill Quadrangle (Santa Clara and San Mateo Counties).	Los Angeles, San Mateo and Santa Clara Counties.	3	3/10/2005
Mountain View and Palo Alto Quadrangles (Santa Clara, San Mateo, and Alameda Counties), and Mount Sizer Quadrangle (Santa Clara County).	Alameda, San Mateo and Santa Clara Counties.	3	7/13/2006
Murrieta Quadrangle.	Riverside County.	1	6/12/2007
Dublin Quadrangle.	Alameda County.	1	5/10/2008
Livermore Quadrangle.	Alameda County.	1	5/10/2008
Lick Observatory Quadrangle.	Santa Clara County.	1	9/13/2012

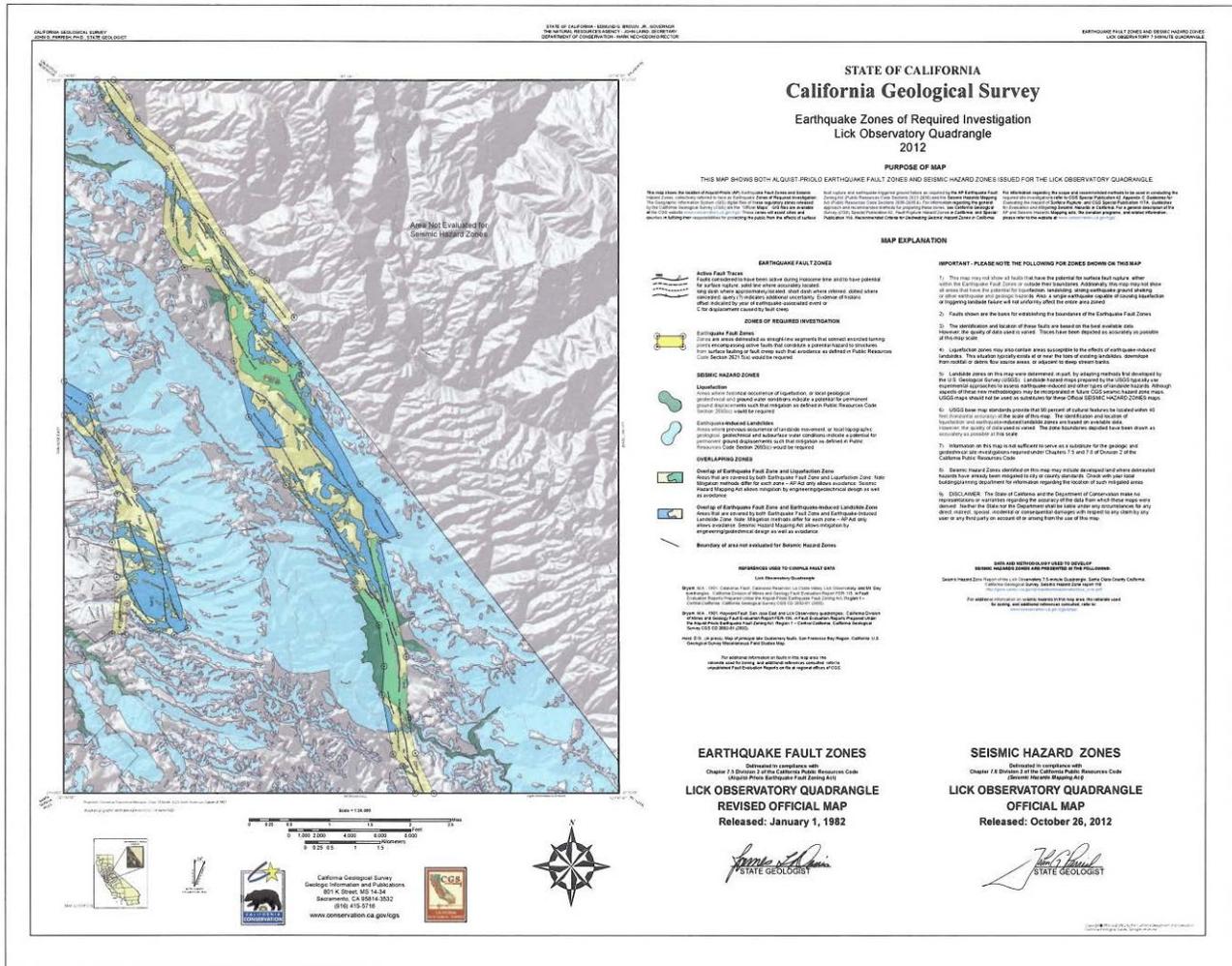


Figure 2. Earthquake Zones of Required Investigation for the Lick Observatory Quadrangle released on March 7, 2012 and published on October 26, 2012, reflecting updating of seismic hazard zones.

SMGB ACTIONS PURSUANT TO THE SURFACE MINING & RECLAMATION ACT OF 1975

The Surface Mining and Reclamation Act of 1975 (SMARA, PRC Sections 2710 et seq.) provides a comprehensive surface mining and reclamation policy for the regulation of surface mining operations and mineral conservation. SMARA encourages the production, conservation, and protection of the State's mineral resources, and assures that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. In addition, PRC Section 2207 also provides annual reporting requirements for all mines in the State, under which the SMGB also is granted authority and obligations.

SCOPE OF SMARA AUTHORITY

SMARA provides for a three-tiered approach to accomplish its administration and enforcement. The primary entity responsible for the SMARA's enforcement is the local "lead agency" - that is, the city or county in which a surface mine operates. The lead agency is responsible for assuring that all surface mine operations within its jurisdiction are in full compliance with SMARA. SMARA prescribes specific responsibilities and powers to the lead agency.

Should a lead agency fail to bring, or become incapable of bringing one or more surface mining operations into compliance, statute allows for the Director of the DOC to commence enforcement at individual surface mining sites. SMARA prescribes specific responsibilities and powers to the Director. The DOC is also responsible for providing technical reviews of reclamation plans and financial assurances to lead agencies to ensure that the requirements of SMARA have been addressed in the reclamation plans prior to their formal approval by the lead agency. California is the only State that regulates mine reclamation by means of local lead agencies. All other States regulate mine reclamation through a single State office (SMGB Information Report 2007-04).

The third tier of enforcement lies with the SMGB. Under SMARA, the SMGB is provided authority to hear appeals of enforcement actions taken by the Director against surface mine operators, as well as appeals of certain decisions made by a lead agency regarding reclamation plans and financial assurances. In addition, the SMGB is provided authority to assume a lead agency's SMARA authority, in whole or in part with exception to permitting, when a lead agency's actions are in violation of the statute, or if the lead agency defaults on its SMARA responsibilities and obligations. The SMGB may also exempt from the requirements of SMARA specific surface mining operations that are of limited scope and duration, and cause little land disturbance.

Promulgation of regulations that clarify and make more specific SMARA statutes also lies within the SMGB's authority. Examples of these regulations include the Reclamation Standards for lands disturbed by surface mining activities (CCR Section 3700 et seq.), and the designation of mineral lands of regional or statewide significance.

SMARA affects 113 jurisdictions comprised of 62 Cities and 51 Counties, excluding the SMGB (Table 5).

Table 5 Lead Agencies Affected by the Surface Mining and Reclamation Act			
County	County	City	City
Alameda	Orange	Amador City	Needles
Amador	Placer	Anaheim	Oakland
Butte	Plumas	Apple Valley	Oceanside
Calaveras	Riverside	Atascadero	Oroville
Colusa	Sacramento	Azusa	Oxnard
Contra Costa	San Benito	Bakersfield	Pacifica
Del Norte	San Bernardino	Banning	Palmdale
Fresno	San Diego	Barstow	Paso Robles
Glenn	San Joaquin	Chula Vista	Perris
Humboldt	San Luis Obispo	Claremont	Poway
Imperial	San Mateo	Colton	Rancho Cordova
Inyo	Santa Barbara	Corona	Redding
Kern	Santa Clara	Fontana	Redlands
Kings	Santa Cruz	Fremont	Rialto
Lake	Shasta	Fresno	Riverside
Lassen	Sierra	Grass Valley	Sacramento
Los Angeles	Siskiyou	Hayward	Saint Helena
Madera	Solano	Healdsburg	San Bernardino
Marin	Sonoma	Highland	San Diego
Mariposa	Stanislaus	Ione	San Jacinto
Mendocino	Sutter	Irwindale	San Marcos
Merced	Tehama	Jackson	Santa Maria
Modoc	Trinity	Lake Elsinore	Santa Rosa
Mono	Tulare	Lake Forest	Santee
Monterey	Tuolumne	Lathrop	Taft
Napa	Ventura	Lompoc	Tracy
Nevada	Yolo	Los Angeles	Truckee
		Mammoth Lakes	Twenty Nine Palms
		Monrovia	Upland
		Montague	Yreka
		Mount Shasta	

The core services and activities of the SMGB under SMARA are:

- Establish mining and reclamation standards and policies, and provide guidance to DOC, CGS, OMR, lead agencies, mine operators and other agencies and organizations (Federal, State, local);
- Represent the interests of the State in SMARA matters that are appealed to the SMGB for action;
- Develop regulations to implement the statutes statewide so as to ensure an evenhanded application of the law throughout an environmentally and economically diverse State;

- Minimize residual hazards from surface mining operations to the public health and safety;
- Encourage the production and conservation of the State's mineral resources, while providing standards for the protection and preservation of the State's recreation, watershed, wildlife, range and forage, and aesthetic features; and
- Certify lead agency surface mining ordinances as being in accordance with the requirements of SMARA.

CHANGES TO SMARA SINCE 2000

SMARA became effective on January 1, 1976. The statute is unique in two respects: (1) mining is regulated locally by cities and counties which are referred to as lead agencies, and (2) processes for the conservation of mineral resources are provided. SMARA has been amended 30 times since its passage in 1975. Significant changes to SMARA occurred in 1987 with AB 747 (Sher), in 1990 with AB 3551 (Sher), in 1990 with AB 3903 (Sher), and 1991 with AB 1506 (Sher), and in 2012 with SB 108 (Rubio). These amendments provided for additional performance standards for mine reclamation, mandatory financial assurances guaranteeing reclamation, time constraints for surface mines without approved reclamation plans to comply or else be closed until compliance was achieved, mandatory annual inspections of mines by the lead agency, establishment of annual mining reports and fees from mine operators to support the SMARA program within the DOC, implementation of new procedures for lead agency conditional approval of reclamation plans and financial assurances, and a temporary mechanism for surface mine sites deemed abandoned to be considered idle or active.

Statutory Changes

SB 447 (Lara) requires that the lead agency be notified of a violation for at least 30 days before the director could initiate enforcement actions, and would provide that a lead agency's failure to issue an order to comply within a reasonable time after issuing a notice of violation may be a failure to take appropriate enforcement action that permits the initiation of an enforcement action by the director.

Regulatory Changes and Considerations

On November 13, 2013, the SMGB adopted new regulatory language for mandatory notification and recertification of amended surface mining ordinances. On January 13, 2014, the Office of Administrative Law (OAL) approved such language and CCR Section 4000 became effective April 1, 2014, and states:

Article 16. Mining Ordinances

Section 4000. Certification and Recertification of Mining Ordinances

(a). Upon adoption of a new mining ordinance, or amendment of an existing mining ordinance, a lead agency shall, within 30 days of such action, provide written notice of the complete text of the resulting mining ordinance to the State Mining and Geology Board, to enable the Board to review the ordinance in accordance with Public Resources Code Sections 2774.3, 2774.5(a) and 2774.5(b).

(b). Where a lead agency has not provided the Board with timely notice of the complete text of its mining ordinance, consistent with subparagraph (a) herein, the mining ordinance shall not be considered

to be in accordance with state policy until the mining ordinance is certified by the Board as being in accordance with state policy.

NOTE

Authority cited: Sections 2755, Public Resources Code. Reference: Sections 2756, 2758, 2759, 2774.3, 2774.5(a), 2774.5(b), and 2774.5(c), Public Resources Code.

Annual Mine Fees Calculation: PRC Section 2207(d) requires the SMGB to impose by regulation an annual reporting fee on each active and idle surface mining operation. Surface mining operations are described and/or defined in PRC Sections 2207(f), 2714, 2727.1, 2735, and Title 14 of CCR Section 3501, and include operations conducted by public agencies. PRC Section 2207(d) also states the annual fee imposed shall not be less than \$100 or more than \$4,000 for each operation. These amounts shall be adjusted for cost of living as measured by the California Consumer Price Index. Furthermore and most importantly, PRC Section 2207(d)(2)(A) requires fees to be calculated on an equitable basis reflecting the size and type of the operation, the total assessed value of the mining operation, the acreage disturbed by mining activities, and the acreage subject to the reclamation plan. A summary of approved mine fees and mine fees adjustments from 2000 to 2012 is shown in Figures 3a and 3b, respectively.

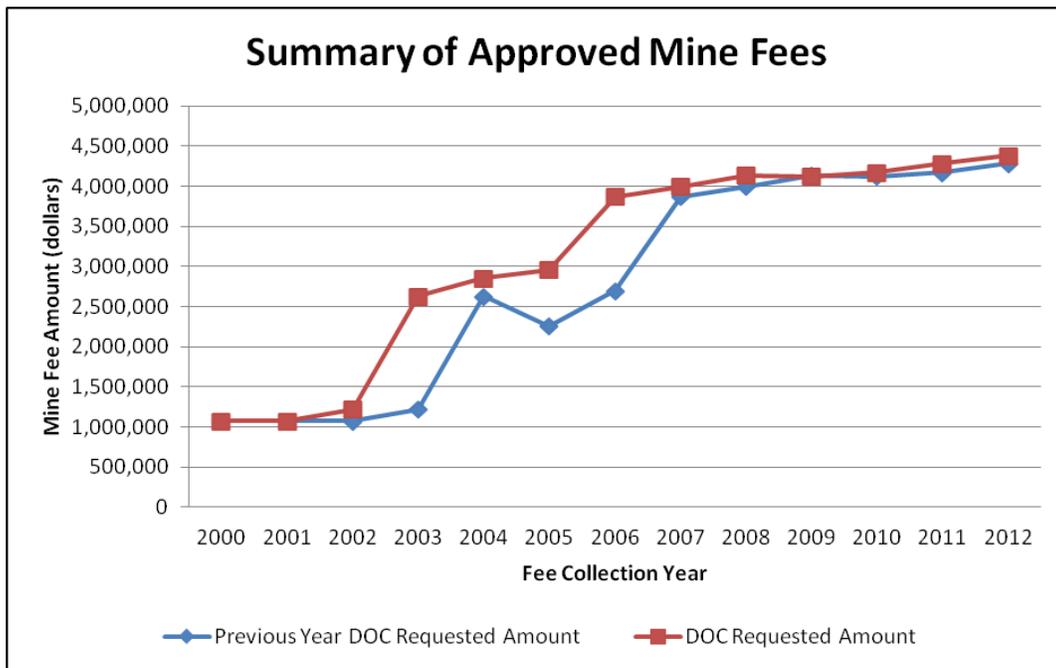


Figure 3a. Summary of approved mine fees from year 2000-2012.

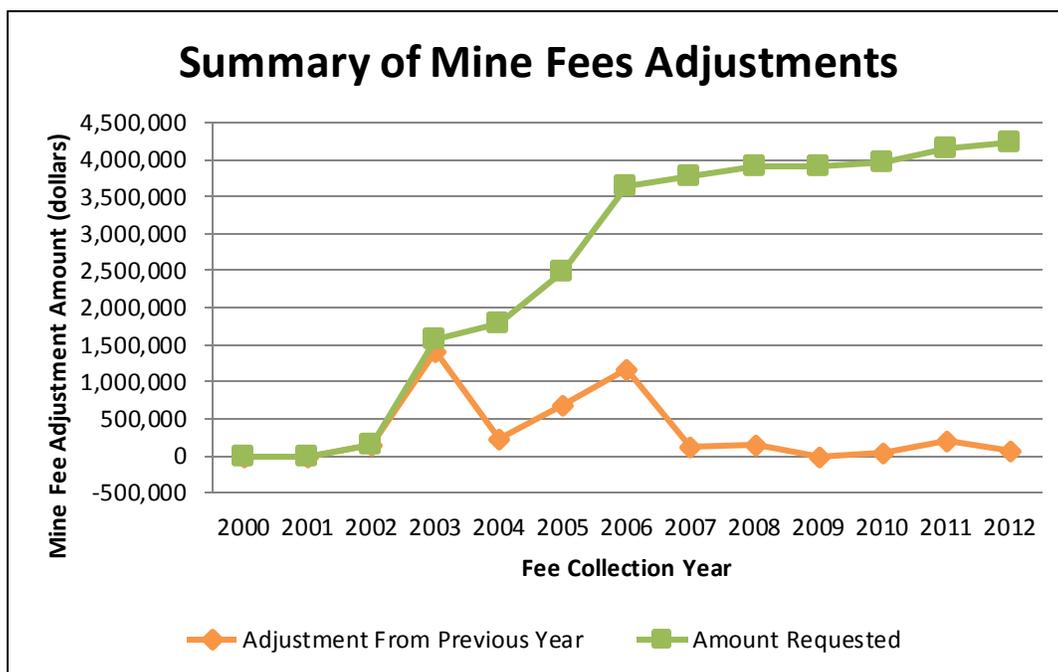


Figure 3b. Summary of mine fees adjustments from year 2000-2012.

The SMGB at its April 10, 2014, regular business meeting accepted the 2013 Annual Mine Fees. The amount requested by the Department of Conservation for Calendar Reporting Year 2013 is \$4,444,287; this amount represents an increase of \$63,784 over the amount requested for Calendar Reporting Year 2012. The estimated amount of fees to be collected in Calendar Year 2012 from set fees described in CCR Sections 3698 and 3699 was \$2,774,052. The estimated amount of fees to be collected for the 2013 Calendar Reporting Year is \$2,814,318. These figures include a Cost of Living Adjustment (COLA) of 1.5 percent as taken from the California Consumer Price Index for 2012. The result is that there will be an increase in fees in the mine categories listed in CCR Section 3698 for the 2013 Calendar Reporting Year.

All industrial mineral sites are now at the maximum fee amount with exception to those operations producing 100 tons or less, all gold and silver producers are at the maximum fee amount with exception to those producing 10 ounces or less, and all base and other metals producers at the maximum fee amount with exception to those producing 10 pounds or less. As such, the SMGB's Policy and Legislation Committee initiated discussion and consideration of other means in calculating the annual mine fees. Such means may entail a regulatory amendment, legislative amendment, or both.

Amended Inspection Form MRRC-1 Pursuant to Title 14, Division 2, Chapter 8, Subchapter 1, California Code of Regulations, Article 1, Section 3504.5. Inspection of a surface mining operation is required not less than once each calendar year to determine if the surface mining operation is in compliance with the requirements of PRC Chapter 9, commencing with Section 2710. Inspection Form MRRC-1, as referred to in CCR Section 3504.5(g), was last revised in April 1997. The DOC develops the inspection form; whereas, the SMGB approves the form. Due to the overall poor quality of inspections statewide, efforts to revise Inspection Form MRRC-1 were initiated by OMR with collaboration from the Executive Officer, SMGB staff and industry stakeholders. The subject amended form was approved by the whole SMGB at its July 11, 2013, regular business meeting.

California Code of Regulations (CCR) Section 3504.5(g) states:

“The inspection report to the lead agency shall consist of the inspection form MRRC-1 (4/97), developed by the department and approved by the board, and any other reports or documents prepared by the inspector or inspection team. The lead agency shall provide a copy of the completed inspection report along with the lead agency's statement regarding the status of compliance of the operation to the director within 30 days of completion of the inspection. A copy of the completed inspection report and lead agency statement of compliance shall also be provided to the mine operator within 30 days of completion of the inspection.”

At its October 11, 2012 meeting, the Policy and Legislation Committee discussed proposed revisions to the form, and requested that OMR report back to the Committee following sufficient time for stakeholders to review and comment. Comments from stakeholders and amendments to the revised form were further considered at the Committee's December 13, 2012, and March 14 and June 13, 2013 meetings. At its March 14, 2013, meeting, the Committee requested from OMR a copy of all comments received, and written indication as to how such comments were responded to. In addition, at its June 13, 2013 meeting, the Committee received additional comments from the California Construction and Industrial Materials Association (CalCIMA), which required further consideration.

As noted above, at its July 11, 2013, regular business meeting, the SMGB approved revised Inspection Form MRRC-1 Pursuant to Title 14, Division 2, Chapter 8, Subchapter 1, California Code of Regulations, Article 1, Section 3504.5.

Guidelines and Policies

On November 14, 2002, the SMGB adopted a *Surface Mine Inspection Guideline (Guideline)*. Since approval of revised Inspection Form MRRC-1, an effort to revise the SMGB's Guideline in a manner to be structurally compatible with the revised Inspection Form MRRC-1 was undertaken. At its April 10, 2014, regular business meeting, the SMGB considered and approved revised inspection guidelines.

MINERAL RESOURCES CONSERVATION

California is one of the nation's leading mining States in terms of both value and diversity of minerals produced. Based on the U.S. Geological Survey's (USGS) preliminary data for 2012, California ranks fifth after Florida, Minnesota, Arizona and Nevada, in the value of non-fuel production, accounting for approximately 4.6 percent of the nation's total. The market value of non-fuel mineral production for California was \$3.27 billion, up from \$2.9 billion in 2011. There were approximately 700 active mines and quarries in the State for calendar year 2012. Combined production from these mines totaled approximately \$2.9 billion worth of non-fuel minerals in that same year (Figure 4), similar to that during the preceding year. Approximately 5,300 people were employed at these mines and their processing facilities.

Gold and silver were the primary metals produced, and iron which is used in Portland cement and considered an industrial mineral. California ranked 6th in gold production out of eleven States that reported for the year. Other minerals produced commercially include common clay, bentonite clay (including hectorite), crushed stone, dimension stone, feldspar, fuller's earth,

gemstones, gypsum, iron ore (used in cement manufacture), kaolin clay, lime, magnesium compounds, perlite, pumice, pumicite, salt, soda ash, and zeolites.

Boron was California's leading mineral commodity in terms of dollar value in 2012. Because there are only two producers of boron minerals in the state, specific production values are withheld to protect proprietary company information and the value of boron production is included in the "other" category in the table and chart. However, the value of boron production is greater than the value of the second ranked construction sand and gravel at \$319 million for 36.5 million tons produced.

Construction sand and gravel (and crushed stone) was California's leading mineral commodity in terms of dollar value in 2012. Preliminary figures for 2012 indicated a slight decrease in value with an increase in tons produced relative to 2011. The total value of construction sand and gravel produced in California in 2012 was \$843 million for 84.9 million tons produced compared to the revised 2011 totals of \$889 million for 80.3 million tons produced. California's second largest mineral commodity was Portland cement valued at \$621 million for 9.3 million tons produced, slightly up from \$587 million for 8.3 million tons produced during the preceding year. Crushed stone ranked fourth in the state with a value of \$319 million for 36.5 million tons produced, up from \$295 million for 34 million tons.

CALIFORNIA NON-FUEL MINERAL PRODUCTION 2012

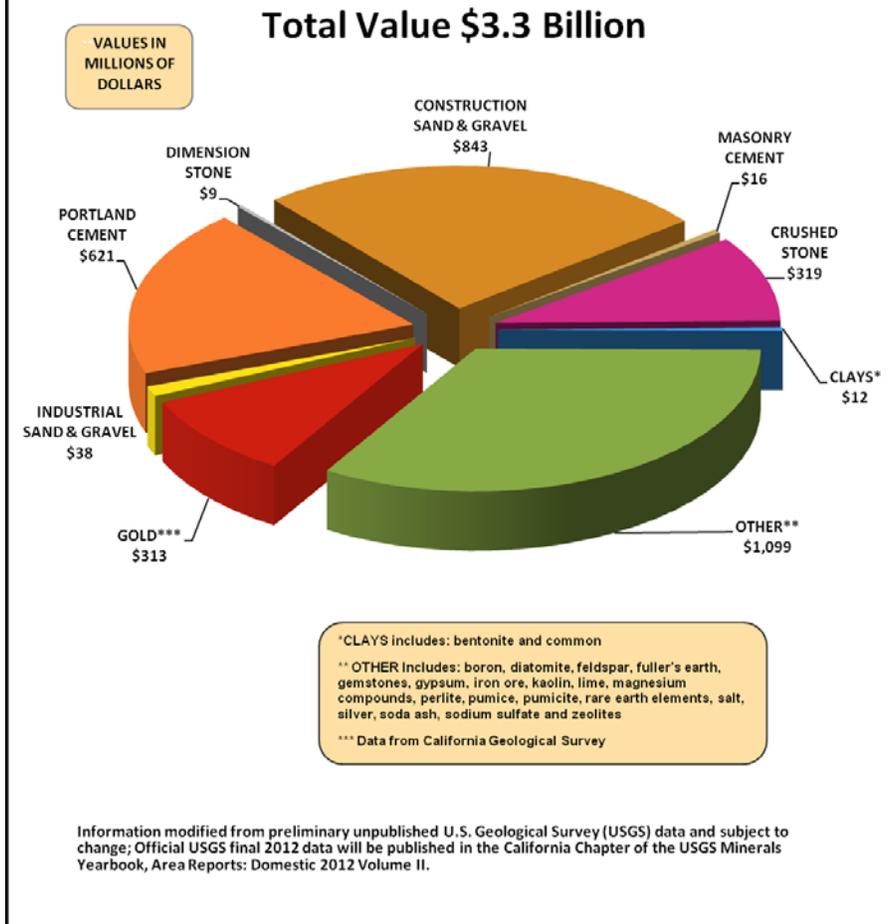


Figure 4. California non-fuel mineral production for 2012.

PROTECTION OF MINERAL LANDS

As California's population continues to grow, its communities face increasingly difficult and complex land use decisions. The production of mineral resources -- so necessary to support an ever expanding population -- must compete with other land uses such as agriculture, timber production, urban development, renewable energy, and recreational, sensitive ecological or scenic areas. The rapid growth of many communities and the incompatibility of mining with most other land uses sometimes results in heated conflicts within those communities. Often, the mineral resource is needed by the very use which threatens it. For example, construction grade aggregate deposits, which are the sources for the construction and repair of roads, houses, and commercial buildings, often are built over before the resource can be extracted.

The objectives of these processes are to provide local agency decision makers with information on the location, need, and importance of mineral resources within their jurisdiction, and to require that this information be considered in local land use planning decisions. These objectives are met through the adoption of local Mineral Resource Management Policies (MRMP) that provide for the conservation and prudent development of these mineral deposits.

In 2012, CGS updated its report titled “*Aggregate Sustainability in California – Map Sheet 52 (Updated 2012)*.” This report and accompanying map was previously published in 2002 (Kohler, 2002) and updated in 2006, and titled *Aggregate Availability in California – Map 52*. The map and accompanying text provides general information about the current availability and sustainability of California's permitted aggregate resources, and summarizes data from reports compiled by CGS for 31 aggregate study areas throughout the State. These study areas cover about 30 percent of the State and provide aggregate for about 85 percent of California's population. This report is divided into three parts: Part I provides data sources and methods used to derive the information presented, Part II compares the updated 2012 Map Sheet 52 to the previous 2006 map, and Part III is an overview of construction aggregate. The map compares projected aggregate demand for the next 50 years with currently permitted aggregate resources in 31 regions of the State. The map also shows areas where less than 10 years of permitted reserves remain in the study area.

Construction aggregate is essential to the needs of modern society, providing material for the construction and maintenance of roadways, dams, canals, buildings and other parts of California's infrastructure. Aggregate is also found in homes, schools, hospitals, shopping centers and renewable energy projects. It is estimated that from 1981 to 2010, California consumed about 180 million tons of construction aggregate or per year. Because transporting aggregate is a significant part of the total cost to the consumer, aggregate mines generally are located close to communities that consume the aggregate.

The following conclusions were offered:

- The 31 study areas currently have 4 billion tons of permitted reserves, which is about one third of the total projected 50-year aggregate demand identified for those study areas, or about 5.5 percent of the total aggregate resources, located within the 31 study areas.
- Total aggregate resources identified within the 31 study areas that are currently permitted covers about 85 percent of the state's population.
- California currently has about 4 billion tons of permitted resources identified in the 31 study areas as shown on Map Sheet 52.
- In the next 50 years, California within the 31 study areas will need approximately 12 billion tons of aggregate. This figure does not account for accelerated construction programs as a result of major bond initiatives, or from reconstruction following a major, damaging earthquake.
- Thirteen of the updated aggregate study areas are projected to have between 11 and 20 years of aggregate reserves remaining.
- Eight of the updated aggregate study areas are projected to have between 21 and 30 years of aggregate reserves remaining.

- Three of the updated aggregate study areas are projected to have between 31 and 40 years of aggregate reserves remaining.
- Two of the updated aggregate study areas are projected to have between 41 and 50 years of aggregate reserves remaining.
- One of the updated aggregate study areas (Placer County) have more than 50 years of aggregate reserves remaining.

The information presented on Map Sheet 52 and in the referenced reports was provided to assist land use planners and decision makers in identifying those areas containing construction aggregate resources, and to identify potential future demand for these resources in different regions of the State. This information is intended to help planners and decision makers balance the need for construction aggregate with the many other competing land use issues in their jurisdictions, and to provide for adequate supplies of construction aggregate to meet future needs. This map is in the process of being updated.

One of the first mineral commodities selected by the SMGB for classification by the State Geologist was construction grade aggregates, such as sand, gravel, and crushed rock. The importance of construction aggregate is often overlooked, even though it is an essential commodity in today's society. Aggregate is a key component in products such as Portland cement concrete, asphaltic concrete (macadam), railroad ballast, stucco, road base, and fill materials.

California's construction industry is greatly dependent on readily available aggregate deposits that are within a reasonable distance to market regions. Aggregate is a low unit-value, high bulk-weight commodity; therefore, aggregate for construction must be obtained from nearby sources in order to minimize costs to the consumer. If nearby aggregate sources do not exist, then transportation costs quickly can exceed the value of the aggregate. Transportation cost is one of the most important factors considered when defining the market area for an aggregate mine operation.

In an effort to address this issue, SMARA provides for a method by which mineral lands may be "Classified" by the State Geologist, and "Designated" by the SMGB. These Classification and Designation processes are methods by which an inventory of the State's most valuable mineral deposits can be compiled and made available to local communities for inclusion in their land use decision making. The SMGB's statutory authority to incorporate mineral lands classification information into State policy is provided pursuant to Division 2, Chapter 9, Article 4, State Policy for the Reclamation of Mined Lands, PRC Section 2761(a), which states:

"On or before January 1, 1977, and, as 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 which are urbanized or are subject to urban expansion or other irreversible land uses which would preclude mineral extraction:

(1) Standard metropolitan statistical areas and such 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 which has been accepted by the board, or any other areas as may be specified by the board, as one of the following:

(1) Areas containing little or no mineral deposits.

(2) Areas containing significant mineral deposits.

(3) Areas containing mineral deposits, the significance of which requires further evaluation.

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.

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

The SMGB's statutory authority to consider areas for designation is provided pursuant to Division 2, Chapter 9, Article 6, Areas of Statewide or Regional Significance, PRC 2790, 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 the 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.”

The statutory authority which allows the SMGB to terminate, in whole or in part, an area previously designated is provided pursuant to PRC Section 2793 which 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.”

Aggregate Availability and Sustainability

To further understand and address the needs of the State in regards to aggregate availability, an Aggregate Availability Group (AAG) was established in 2009. The group included representatives of the California Department of Conservation, Bureau of Land Management, California Office of Planning and Research, California Department of Transportation, California Construction and Industrial Materials Association, California Geological Survey, Office of Mine Reclamation and SMGB. Since adoption of the Charter in 2011, efforts have commenced to update and develop new aggregate availability map concepts that reflect current economic, social and environmental factors, and which provide a valuable tool and resource for all stakeholders concerned about aggregate availability.

Aggregate is a low unit-value, high bulk weight commodity. Thus, it must be obtained from nearby sources to minimize economic and environmental costs associated with transportation. If these nearby sources do not exist, then transportation costs can quickly exceed the value of the aggregate. In addition, transporting aggregate from distant sources results not only in increased construction costs and fuel consumption, but an increase in greenhouse gas emissions, air pollution, traffic congestion, and road maintenance.

CGS notes that from 1981 to 2010, California consumed an average of about 180 million tons of construction aggregate (all grades) per year. Assuming an average of 25-ton truckload equates to over 7.2 million truck trips per year. For example, an average 25 mile haul (50 mile round trip) amounts to more than 360 million truck miles traveled, almost 47 million gallons of diesel fuel used, and more than 520,000 tons of carbon dioxide emissions produced annually. Doubling of the haul distance to 50 miles (100 mile round trip) equates to 721 million truck miles traveled, almost 94 million gallons of diesel fuel used, and over 1 million tons of carbon dioxide emissions produced.

In California, land-use planners and decision makers are faced with balancing a wide variety of needs. Increasingly, as existing permitted aggregate supplies are depleted, local land-use decisions regarding aggregate resources can have regional impacts that go beyond local jurisdictional boundaries. Primary factors include universal need, increasing demand, the economic and environmental costs of transportation, and multiple land-use pressures. These factors make information about the availability and demand for aggregate, valuable to land-use planners and decision makers charged with planning for a sustainable future for California's citizens.

Throughout California, aggregate haul distances have been gradually increasing as more local sources of aggregate diminish. Consequently, older Production-Consumption (P-C) regions, most of which were established in the late 1970s, have undergone considerable changes since their boundaries were drawn. This is especially evident in Los Angeles, Orange, and Ventura counties where aggregate shortages have led to the merging of six P-C regions shown on the original (2002) map into three regions for the updated maps. This increase in aggregate haul distances not only increases the cost of aggregate to the consumer, but also increases environmental and societal impacts such as increased fuel consumption, carbon dioxide emissions, air pollution, traffic congestion and road maintenance.

The resultant conceptual Aggregate Transport and Sustainability Maps being developed by CGS and the SMGB aim to address these factors and needs. These conceptual maps will illustrate some of the possible types of information and graphical presentation that might be used in a series (7-10) of regional aggregate resource sustainability maps covering the state. Each such map would incorporate multiple smaller Production-Consumption (P-C) Regions based on previous mineral land classification studies.

Combining multiple P-C Regions into "Super Regions" should allow better estimates of future regional aggregate demand and a better analysis of production and consumption patterns within the "Super Region". The maps show, in a simplified manner, the distance from current aggregate sources (or potential source areas) to points of consumption and can be used to illustrate the relationship between distance and aggregate costs (both economic and environmental). In addition to the added dollar cost of aggregate to the consumer, transportation of aggregate over longer distances results in increased fuel consumption, air pollution, greenhouse gas emissions, traffic congestion, and road maintenance. Also shown will be the relationship between the projected 50-year aggregate demand, reserves (permitted resources), and resources for each P-C Region (within the larger super region) to emphasize the region's future aggregate needs, current supplies, and potential future sources; and the estimated annual CO₂ emissions from aggregate transport in each P-C Region related to haul distance.

The passage in 2006 of AB 32 (Nunez) required the California State Air Resources Board to adopt regulations to require reporting and verification of statewide greenhouse gas emissions. To monitor and enforce compliance with this program would require the state board to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas

emissions levels in 1990 to be achieved by 2020, among other requirements. The reduction of emissions of greenhouse gases is anticipated to have far-reaching effects beyond the local jurisdictions. The passage in 2008 of SB 375 (Steinberg and Ducheny) created regional targets for greenhouse gas emissions reductions tied to land use in California and requires that regional planning agencies create plans to meet those targets. Ensuring local sources of construction aggregate to minimize haul distances may be one component of meeting those reduction targets while also reducing the cost of local projects, traffic congestion and other undesirable environmental impacts. The proposed maps and reports would assist regional planning agencies and decision makers in planning for sustainable future supplies of aggregate resources within the framework of required greenhouse gas reductions.

Presenting relevant information on an appropriate regional basis will highlight the potential impacts (economic, environmental, and societal) that land use decisions related to aggregate mining in one jurisdiction may have on neighboring jurisdictions and the larger region, and provide a tool to allow local jurisdictions to understand the regional and statewide nature of aggregate supply.

Mining Ordinances

SMARA requires each lead agency (City, County, or City and County) to have a surface mining and reclamation mining ordinance that is in accordance with statute. To ensure ordinances are in compliance with SMARA and the SMGB's regulations, the SMGB has authority to review and certify that these local ordinances meet SMARA requirements. Based on a review of the State's mineral resource management program (SMGB Information Report 2007-03), it was concluded that the Mining Ordinance review and certification program was working well, with an effective compliance rate of 100 percent.

SMARA requires that lead agencies periodically revise their respective mining ordinances to keep them consistent with legislative and regulatory changes. The SMGB is required to re-certify these ordinances before they become effective. From January 2000 through June 2014, the SMGB reviewed and re-certified updated SMARA ordinances for 13 cities and 10 counties as summarized in Table 6. At its January 9, 2014, regular business meeting, the SMGB certified via Resolution 2014-03 the County of Santa Clara's Surface Mining and Reclamation Ordinance Section Nos. 2.10.040 and 4.10.370, as being in accordance with SMARA (PRC Section 2710 et seq.).

**Table 6
SMGB Certified Surface Mining and Reclamation Ordinances**

SMARA Lead Agency	City Or County	SMGB Certification Date	SMGB Resolution Number	Ordinance Number
Colusa	County	9/11/2003	Resolution 2003-04	Ordinance No. 659
Contra Costa	County	7/13/2000	Resolution 2000-08	Ordinance No. 2000-18
Glenn	County	5/12/2005	Resolution 2005-05	Ordinance Nos. 1083 and 1171
Hayward	City	11/15/2004	Resolution 2004-09	Ordinance No. 04-12
Lake	County	7/13/2000	Resolution 2000-07	Ordinance No. 2533
Los Angeles	City	7/13/2000	Resolution 2000-06	Ordinance No. 173106
Madera	County	12/14/2006	Resolution 2006-10	Ordinance No. 525G
Mammoth Lakes	City	5/10/2001	Resolution 2001-05	Ordinance No. 01-02
Modoc	County	1/14/2000	Resolution 99-48	Ordinance No. 236-85
Oakland	City	6/19/2003	Resolution 2003-02	Ordinance No. 12496
Oxnard	City	10/11/2001	Resolution 2001-06	Ordinance No. 2579
Pacifica	City	5/12/2006	Resolution 2006-03	Ordinance Nos. 670-C.S. and 711-C.S.
Poway	City	11/15/2004	Resolution 2004-11	Ordinance No. 609
Rancho Cordova	City	7/23/2004	Resolution 2004-06	Ordinance No. 22-2004
Riverside	County	12/13/2012	Resolution 2012-05	Ordinance No. 555.19
San Bernardino	City	12/14/2000	Resolution 2000-14	Ordinance No. MC-1084
San Diego	City	7/13/2000	Resolution 2000-05	Ordinance No. 18802
San Jacinto	City	12/9/2004	Resolution 2004-12	Ordinance No. 04-08
Santa Clara	County	1/9/2014	Resolution 2014-03	Ordinance Section Nos. 2.10.040 and 4.10.370
Tracy	City	11/9/2000	Resolution 2000-12	Articles 37 and 38 of the City Code
Truckee	City	1/11/2001	Resolution 2001-01	Ordinance No. 2000-04
Yolo	County	12/13/2001	Resolution 2001-08	Ordinance No. 1276

Mineral Resource Management Policies (MRMP)

SMARA lead agencies are required to incorporate Mineral Resource Management Policies (MRMP) into their General Plans upon revision of their plans. Thirty-six lead agencies have mineral classified or mineral designated lands within their jurisdictions. Although MRMP's are required to be sent to the SMGB for review prior to their incorporation into local General Plans, most lead agencies seem not to have done so. Also, because MRMP information may be placed in more than one section or element in a General Plan, it can be difficult to find the MRMP if it is not clearly identified. A summary of MRMPs recognized by the SMGB from July 2000 to June 2012 is presented in Table 7.

The purpose and intent of the MRMP are to ensure the continued availability of important mineral resources, while regulating surface mining operations as required by SMARA, and the

SMGB's regulations. As noted above, based on a review of the State's mineral resource management program (SMGB Information Report 2007-03), it was concluded that the MRMP review and recognition program is not working well and the compliance rate may be as low as 4 percent to 19 percent. No MRMP were reviewed and commented on during the 2013-2014 reporting period.

Table 7 Summary of SMGB Recognized MRMP July 2000 - June 2014				
Lead Agency	MRMP Submittal Date	Recognition Date	SMGB Resolution Number	MRMP Document
City				
Claremont	8/2/2003	12/14/2006	2006-10	General Plan, Mineral Resources
Goleta	5/31/2006	9/14/2006	2006-07	
Irwindale	5/2008	12/1/2008	2008-08	2020 General Plan, Section 5, Resource Management Element
Santa Clarita	7/19/2006	Not recognized		
Truckee	5/16/2006	9/14/2006	2006-08	
County				
El Dorado	1/24/1995; 4/9/2003	Not recognized		County General Plan, Volume I – Goals, Objectives and Policies, December 1993; 1996 general Plan Alternatives – Conservation and Open Space Element, 1996.
Marin	8/11/2004	10/14/2004		2.6 Natural Systems Element
Mendocino	8/17/2009	11/12/2009		Chapter 4: Resources Management Element, Mineral Resources Policies (pages 4-44 and 4-45 of the Updated General Plan).
Merced	11/8/2001	2/14/2002		
Nevada	2/26/2003	5/23/2003		Nevada County General Plan Final Draft, September 1995, Chapter 17: Mineral Management
Sacramento	5/2008	9/11/2008	2008-05	General Plan Conservation Element, Section II, Mineral Resources, and Section IV, Soil Resources
Tuolumne	7/2010			County of Tuolumne General Plan Amendment GPA09-004 Mineral Resources Section; commented in SMGB correspondence dated July 1, 2010.

Classification Petitions

For a mineral deposit to be considered significant, and thus eligible for MRZ-2 classification, the deposit must meet criteria established by the SMGB for material quality, marketability, and economic value. The category of MRZ-2 is defined as areas where adequate information indicates that significant mineral resources are present, or where it is judged that a high likelihood for their presence exists. Land included in MRZ-2 is of prime importance because it contains known economic mineral deposits. Significance of the deposit is determined by evaluating the quality of the deposit, its suitability as a marketable commodity, and by calculating the volume, tonnage and value of available aggregate resources contained within the property.

Those petitions accepted since July 2000, are summarized in Table 8. No new petitions were considered during the 2013-2014 reporting period.

Classification

Classification is the method by which the State Geologist, in accordance with a time schedule and based upon guidelines adopted by the SMGB, geologically evaluates the State's lands and categorizes those lands as: (1) having little or no mineral deposits; (2) areas containing significant mineral deposits; and, (3) areas containing mineral deposits, the significance of which requires further evaluation. These determinations by the State Geologist are made based solely on geologic factors, and without regard to existing land use or land ownership. Mineral Classification information is transmitted to the SMGB by the State Geologist, and then is provided to locally affected jurisdictions (cities and counties) by the SMGB.

In some regions, large portions of the areas classified as having significant mineral deposits are already committed to other various urban uses, which prohibit access to the underlying resources. As an additional aid to local planning agencies, classification reports prepared for metropolitan areas also highlight non-urbanized portions of the classified mineral lands as Aggregate Resource Areas (ARA). These non-urbanized ARA's contain mineral deposits that remain potentially available for future use, and facilitate estimating the volume of aggregate material that is practically available in the region. ARA's may be considered for Designation by the SMGB.

Table 8
Mineral Lands Classification Petitions
Received from July 2000 through June 2014

Geographical Area	Date	Petition Request
Alameda County	9/22/2005	Acceptance of a Petition for designation of three parcels of land totaling 212 acres being classified as MRZ-2 (areas containing significant measured or inferred aggregate resources) in the city of Pleasanton, Alameda County, for Rhodes and Jamieson LLC.
San Diego County	9/22/2005	Acceptance of a Petition for re-classification of six irregularly shaped parcels totaling 210.9 acres as MRZ-2a for construction aggregates in the County of San Diego for National Quarries
San Diego County	11/10/2005	Acceptance of a Petition for Mineral Land Classification for the Proposed Otay Hills Quarry site, Superior Ready Mix Concrete, L.P.'s Otay Hills Property, San Diego, California.
Riverside County	12/11/2008	Acceptance of a Petition for Re-Classification of Mineral Resource Zone (MRZ) Lands from MRZ-3a to MRZ-2a, Day Street Project, Riverside County.
Sacramento County	4/9/2009	Acceptance of a Petition for Re-Classification of Mineral Resource Zone (MRZ) Lands from MRZ-3 to MRZ-2, White Rock Road Properties, Mangini Property, Sacramento County.
Riverside County	9/11/2009	Acceptance of California Geological Survey's Report 212/Revised Mineral Land Classification, First Industrial Realty Trust Day Street Project, Riverside County, for Portland Cement Concrete-Grade Aggregate
Sacramento County	3/11/2010	Acceptance of a Petition for Classification of Mineral Lands, Wilson Ranch-Walltown Quarry Project, Sacramento County, California.
Butte County	12/9/2010	Acceptance of California Geological Survey's Special Report 218 on Mineral Lands Classification of the Power House Aggregate Project Site, Butte County, California, for Construction Aggregate
Stanislaus County	9/08/2011	Acceptance of California Geological Survey Special Report 223 for Mineral Land Classification for the Proposed Riddle Surface Mine Property, Stanislaus County, California.

During 2013-2014, the SMGB accepted CGS Special Report 205 Titled “*Update of Mineral Land Classification: Aggregate Materials in the North San Francisco Bay Production – Consumption Region, Sonoma, Napa, Marin, and Southwestern Solano Counties, California.*” Twenty-one classification reports were completed between July 2000 and June 2014 (Table 9).

**Table 9
Summary of Classification Reports
Accepted by the SMGB since 2000**

Geographical Area	CGS Report No.	Title	Classified Acres	Date Accepted by SMGB
El Dorado County	OFR 2000-03	Mineral Land Classification of El Dorado County, 2000.	1,144,320	Uncertain
Butte County	OFR 2000-04	Mineral Land Classification of the KRC Holdings, Inc. M&T Chico Ranch Site, Butte County, California, for Construction Aggregate Resources, 2000.	627	06/15/2000
Tehama County	OFR 2000-18	Mineral Land Classification of Concrete-Grade Aggregate Resources in Tehama County, California, 2000.	1,891,000	Uncertain
Sonoma County	SR 175	Mineral Land Classification of Aggregate Materials in Sonoma County, California, 2005.	1,025,000	03/10/2005
Lassen County	SR 177	Mineral Land Classification of the Long Valley Pozzolan Deposits, Lassen County, California, 2003.	5,514.9	Uncertain
Monterey County	SR 180	Mineral Land Classification of Granite Construction Inc.'s Handley Ranch Site, Monterey County, California, 2005.	224	06/19/2003
San Diego County	SR 191	Mineral Land Classification of National Quarries' Twin Oaks Valley Road Site, San Marcos, San Diego County, California – for Construction Aggregate Resources, 2006.	160	09/14/2006
Riverside County	SR 198	Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the Palm Springs Production-Consumption Region, Riverside County, California, 2007.	404,000	12/13/2007
Riverside County	SR 200	Mineral Land Classification of the Granite Construction Company Liberty Quarry Site, Temecula, Riverside County, California – for Portland Cement Concrete-Grade Aggregate, 2007.	290	06/14/2007
Los Angeles and San Bernardino Counties	SR 202	Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the Claremont-Upland Production-Consumption Region, Los Angeles and San Bernardino Counties, California, 2007.	149,200	12/13/2007

**Table 9 (Continued)
Summary of Classification Reports
Accepted by the SMGB since 2000**

Geographical Area	CGS Report No.	Title	Classified Acres	Date Accepted by SMGB
North San Francisco Bay	SR 205	Update of Mineral Land Classification: Aggregate Materials in the North San Francisco Bay Production – Consumption Region, Sonoma, Napa, Marin, and Southwestern Solano Counties, California	uncertain	11/14/13
San Bernardino and Riverside Counties	SR 206	Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the San Bernardino Production-Consumption Region, San Bernardino and Riverside Counties, California, 2008.	693,900	12/11/2008
Los Angeles County	SR 209	Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the San Gabriel Valley Production-Consumption Region	281	09/09/2010
Kern County	SR 210	Update of Mineral Land Classification: Aggregate Materials in the Bakersfield Production-Consumption Region, Kern County, California, 2009.	1,150,456	10/08/2009
Riverside County	SR 212	Mineral Land Classification of the First Industrial Realty Trust Day Street Site, Riverside County, California – for Portland Concrete-Grade Aggregate, 2009.	500*	04/09/2009
Riverside County	SR 212 (Revised)	Revised Mineral Land Classification of the First Industrial Realty Trust Day Street Site, Riverside County, California – for Portland Concrete-Grade Aggregate, 2009.	80*	09/11/2009
Sacramento County	SR 213	Mineral Land Classification of the White Rock Road Properties, Mangini Property, Sacramento County – for Construction Aggregate, 2009.	586	04/09/2009
Sacramento County	SR 214	Mineral Land Classification of the Wilson Ranch – Walltown Quarry Project, Sacramento County, California – for Construction Aggregate, 2010	414	03/11/2010
San Luis Obispo County-Santa Barbara County	SR 215	Update of Mineral Land Classification: Concrete Aggregate in the San Luis Obispo-Santa Barbara Production-Consumption Region, California	2,991	12/08/2011
Butte County	SR 218	Mineral Lands Classification of the Power House Aggregate Project Site, Butte County, California, for Construction Aggregate.	460	12/09/2010

*According to CGS SR 212 (Revised), the total for these two areas is 597 acres.

Designation

Designation is the process by which the SMGB, based on analyses by the State Geologist and the CGS, information gathered from local communities, the mining industry, and other government agencies such as the Governor's Office of Planning and Research, determines that a particular mineral classified deposit is of regional (multi-community) or statewide economic significance. In contrast to Classification, which inventories mineral deposits without regard to existing land use, the purpose of Designation is to identify those areas that are of prime importance in meeting the future needs of the study region and that remain available from a land use perspective.

Designation is the State's effort to conserve mineral resources in regions of expected rapid urbanization or other land uses that might prevent surface mining activities, and therefore result in a loss of the mineral resource to the community. To avoid dictating to local communities where future aggregate mines should be located, mineral designated areas generally contain resources (un-permitted deposits) that are far in excess of the region's 50-year demand. This attempts to provide maximum flexibility to local governments in making land use decisions, while still conserving an adequate amount of construction aggregate for the future.

Prior to 1991, the SMGB designated 15 areas within the State, encompassing about 259,585 acres, as having regionally significant economic mineral resources. Designation ceased when the costs of complying with the requirements of the California Environmental Quality Act (CEQA) became prohibitive, and agency budgets were being reduced because of the "California economic recession" of the early 1990's. Since that time, no additional areas received mineral Designation status from the SMGB until November 2011 with the publication of SMGB Designation Report No. 11 titled "*Designation of Regionally Significant Construction Aggregate Resources in the Bakersfield Production-Consumption Region*" dated November 2011.

At its March 13, 2014, regular business meeting, the SMGB accepted the recommendations of the State Geologist for Designation of Mineral Lands for Portland Cement Concrete-Grade Aggregate in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin, and Southwestern Solano Counties, California.

Several regulatory actions were taken in 2013-2014 pertaining to designation of mineral lands. Regulatory Language for Designation, and Termination of Designation of Mineral Lands within the San Luis Obispo-Santa Barbara PC Region was considered on July 11, 2013, and approved on September 12, 2013. Proposed Regulatory Language for Designation, and Termination of Designation, of Mineral Lands within the Stockton - Lodi Production-Consumption Region was approved on November 14, 2013. Regulatory Language for Designation, and Termination of Designation, of Mineral Resources Areas of Statewide or Regional Significance for the Palm Springs Production-Consumption Region, County of Riverside, California, and for the San Bernardino Production-Consumption Region, San Bernardino and Riverside Counties, California, was re-adopted also on November 14, 2013.

The SMGB also approved on November 14, 2013, Designation Report No. 12 titled "*Designation of Regionally Significant Aggregate Resources in the San Gabriel Valley Production-Consumption Region.*"

Regional versus Statewide Significance

At its September 12, 2013 regular business meeting, the SMGB approved the regulatory language for proposed designation and termination of mineral lands within the San Luis Obispo – Santa Barbara P-C Region. At such meeting, the SMGB also requested this matter be continued to allow sufficient time to address whether certain aggregate deposits associated with Sector C should be considered of regional or, based on comments received, be considered of statewide significance.

At its November 14, 2013, regular business meeting, the SMGB discussed for the purpose of designation the difference between mineral lands being of regional versus statewide significance. Determining, for purposes of mineral designation of any area, whether the deposit(s) involved are of "statewide" (PRC Section 2727) or simply "regional" (PRC Section 2726) significance, reflects both on the type of deposit and its economic impact. It has been argued that, if mining a deposit is precluded by incompatible development, then it will create a negative environmental impact of statewide significance. It is true that, if the deposit cannot be mined, replacement material will have to be transported to the area. This will necessitate additional air quality, noise, traffic, and other environmental impacts (i.e., emissions). In California, where serious and costly efforts are underway to improve air quality, the incremental increase in air pollution from the shipping of replacement minerals arguably could affect statewide air quality goals.

However, it can be seen that, in every case where replacement minerals must be transported to an area where similar deposits cannot be mined, there will be inevitable increases in air pollution from that effort. If that justifies a finding that a deposit possesses "statewide significance", then all areas of mineral deposits suitable for designation would be of "statewide significance".

More important, it is not at all evident that the issue of "significance" in the designation process aims at environmental consequences. More certainly, designation aims to protect mineral resources, where found in economically suitable quantity and quality, by guiding land use authorities to consider planning to avoid locating incompatible uses in the vicinity of those resources. Respecting this truth leads to a more rational approach to the question of statewide versus regional significance of any deposit being designated. Where the material is economically important primarily to the region in which it is located, the significance will usually be regional only. This is particularly true where the mineral deposit is located commonly around the State. Construction aggregate is an example of such a resource. Typically, it is mined and used in the region where it occurs. Other regions would have deposits located in relatively close proximity to where they would be mined for their use, since transportation cost would dictate where the aggregate can be found at the least cost.

In a few other cases, the mineral deposit may be unique to the entire state. Then, while the economic importance of the mining activity itself remains primarily local, the economic value of the materials mined will affect all of California. Examples might be rare earth elements, precious metals and boron minerals, where the minerals are significant economically statewide and their existence is not replicated sufficiently elsewhere.

STATE MINING AND GEOLOGY BOARD'S AUTHORITY UNDER SMARA

Under SMARA, the SMGB has authority to act on the following items:

- Review and certify lead agency surface mining ordinances;
- Review certain orders of the DOC Director before they become effective;
- Assume local lead agency authority for administering and enforcing SMARA under specified circumstances;
- Adjudicate appeals from individuals and mine operators for specific lead agency actions;
- Adjudicate appeals of Administrative Penalties issued by the Director;
- Exempt from the requirements of SMARA specific surface mining operations; and
- Make regulations implementing the statutes.

SMARA Lead Agencies

California is the only State in the conterminous United States where surface mine reclamation is not regulated primarily at the State level. Most states also maintain permitting authority when it comes to mining regulation; whereas, in California permitting authority is decided at the local level. SMARA, pursuant to PRC Section 2728, defines a lead agency as a city, county, San Francisco Bay Conservation and Development Commission (BCDC), or the SMGB which has the principal responsibility for approving a surface mining operation or reclamation plan. Under SMARA, there are currently 113 SMARA lead agencies: 51 counties, 62 cities. The SMGB also serves in the capacity of administering SMARA as a lead agency.

Specific duties of lead agencies which are charged with the primary administration and enforcement of SMARA are to:

- Review and approve reclamation plans that meet the minimum requirements established by SMARA and the SMGB's reclamation performance standards (regulations) for surface mines;
- Approve financial assurances, subject to review annually, that are sufficient to pay for the costs of full reclamation of the lands disturbed by surface mining operations according to the requirements of the approved reclamation plan;
- Approve local permits for mining operations;
- Conduct an annual inspection of each surface mine to confirm that the operation is in compliance with the requirements of SMARA, and to remedy the situation if the operation is not in compliance;

- Issue Administrative Penalties to operators who do not come into compliance;
- Close operations that do not attain compliance;
- Maintain a surface mining ordinance that is in accordance with SMARA;
- Incorporate Mineral Resource Management Policies (MRMP) into their General Plans if there are mineral “classified” or mineral “designated” lands within the lead agency’s jurisdiction.

Some SMARA lead agencies are diligent in their reviews and approvals of reclamation plans and financial assurances in accordance with SMARA and the SMGB’s regulations; whereas others, for a variety of reasons, are less able to perform adequate reviews of reclamation plans and rely extensively on OMR’s technical review comments. Lead agencies must review financial assurances annually and require adjustments to the financial assurance amounts to cover any changes to the costs of reclamation. This financial assurance review should be accomplished during the mandatory annual inspection process. Following the field inspection, the lead agency shall require a recalculation of the required financial assurance amount to adjust for changes in the amount of newly disturbed land and anticipated disturbed lands over the next year, reclaimed land, and economic inflation.

Since 2002, the SMGB has exercised its assumption of lead agency authority for three counties, several cities without certified mining ordinances, and all marine dredging operations within the jurisdiction of the Bay Conservation and Development Commission (BCDC). In September 2006 the SMGB performed a review of overall SMARA lead agency performance using the DOC SMARA database (SMGB Information Report 2007-01). This evaluation assessed the lead agency’s performance of periodic mine inspections, adjustment of annual financial assurances and enforcement of the preparation of Interim Management Plans (IMP) should a surface mine site be characterized as idle for a period exceeding one year. Based on this review, the overall performance of SMARA lead agencies throughout California varies significantly. For the most part, overall performance was deemed poor, reflecting a number of factors, including primarily financial constraints, and limited or absent technical expertise. As a result, in 2007, the Department of Conservation, Office of Mine Reclamation (OMR) established the Lead Agency Review Team (LART).

During the 2013-2014 reporting period, No new LART reports were completed and subsequently submitted to the SMGB.

Enforcement Actions

Order to Comply Appeals

Pursuant to PRC Section 2774.1(b), when the Director of the DOC issues an Order to Comply to a surface mine operator to bring its operations into compliance with the State mining law, SMARA provides that the Order does not become effective until it has been heard by the SMGB in public session. This constitutes an automatic appeal to the SMGB. No Order to Comply appeals were received by the SMGB during the 2013-2014 annual reporting period.

Administrative Penalties Appeals

Pursuant to PRC Section 2774.1(c), following issuance of an Order to Comply by the Director, which is subsequently upheld by the SMGB, the Director may consider issuance of an

Administrative Penalty to a surface mine operator. No administrative penalties appeals related to Orders to Comply issued by the Director were received by the SMGB during the 2013-2014 annual reporting period.

Pursuant to PRC Section 2774.1(c), the Director may also issue an Administrative Penalty to a mine operator who fails to submit a report to the Director or lead agency as required by PRC Section 2207. Three administrative penalties as issued by the Director for failure to submit a 2012 Mining Operation Annual Report and reporting fee were appealed to the SMGB.

**Table 10
Summary of Administrative Penalties Appeals from 2000-2014**

Administrative Penalty Public Hearing	SMGB Public Hearing Date
2000	Archer Agricultural Gypsum, CA Mine ID #91-16-0004 Pires Farms, CA Mine ID #91-16-7004
2001	Weber Creek Quarry, CA Mine ID # 91-09-0002 Diamond Quarry, CA Mine ID #91-09-0003
2002	Snows Road Quarry, CA Mine ID #91-09-0012 Eureka Slate Quarry, CA Mine ID #91-09-0007 Diamond Quarry, CA Mine ID #91-09-0003
2003	Snows Road Quarry, CA Mine ID #91-09-0012
2004	Snows Road Quarry, CA Mine ID #91-09-0012 Wheatland Clay Pit, CA Mine ID #91-58-0004 Blue Point Mine, CA Mine ID #91-58-0021 Cassill Placer Mine, CA Mine ID #91-09-0011 Eureka Slate Mine, CA Mine ID #91-09-0007 Garden Valley Aggregates, CA Mine ID #91-09-0013 Point Richmond, CA Mine ID #91-07-0006
2005	Red Ink Maid Mine, CA Mine ID #91-31-0020 Pacifica Quarry, CA Mine ID #91-07-0007
2006	Red Ink Maid Mine, CA Mine ID #91-31-0020 Pacifica Quarry, CA Mine ID #91-07-0007 Dantoni Pit, CA Mine ID #91-58-0011 Richmond (Chevron) Quarry, CA Mine ID #91-07-0006 Sperbeck Quarry, CA Mine ID #91-58-0004
2007	Sperbeck Quarry, CA Mine ID #91-58-0004 Red Ink Maid Mine, CA Mine ID #91-31-0020 Arvin Soil Borrow Pit, CA Mine ID #91-15-0099 Dolomite Quarry, CA Mine ID #91-35-0013 Arroyo Del Osos Beach, CA Mine ID #91-40-0043 Dantoni Pit, CA Mine ID #91-58-0011
2008	River Ranch Aggregates, CA Mine ID #91-32-0001
2011	Big Cut Mine, CA Mine ID #91-09-00XX South Arkansas Creek, CA Mine ID #91-03-0029 Sand Canyon Pit, CA Mine ID #91-15-0095 Pozzolan Hill Pit, CA Mine ID #91-18-0047 McKenzie Mine, CA Mine ID #91-23-0033 CBS Aggregates, CA Mine ID #91-32-0033 Shamrock S&G, CA Mine ID #91-33-0042 K-1 Pit, CA Mine ID #91-36-0074 Lor O, CA Mine ID #91-47-0053 Blue Point Mine, CA Mine ID #91-58-0023 Blue Point Clark Mine, CA Mine ID #91-58-0015

SMARA Exemptions

It is recognized that not all surface mining operations are an efficient “fit” under SMARA, and that many projects of limited size, duration, economic and environmental impact would be prevented, delayed, or rendered uneconomic if the requirements of SMARA were fully applied.

The SMGB may exempt from the requirements of SMARA surface mining operations that are of short duration and cause limited surface disturbance (PRC Section 2714(f)). During the 2010-2011 reporting period, two exemption requests were considered by the SMGB. Between July 1999 and June 2014, the SMGB heard thirty-three (33) such exemption requests, with four being heard during the 2013-2014 period. A summary of these exemption requests is provided in Table 11.

The Executive Officer can deny a one-time exemption request if, upon review, the request does not comply with the criteria set forth in PRC Section 2714(f). However, this matter can also be placed before the SMGB should 1) a request be made by one SMGB member; 2) the Executive Officer cannot come to a clear consensus; or 3) if controversy arises surrounding the request.

In cases when a request comes before the SMGB, the SMGB can grant a one-time exemption on a case-by-case basis. Before exemptions from the provisions of SMARA are granted, the SMGB, pursuant to SMGB Resolution No. 93-6, considers the following four criteria: compliance with the California Environmental Quality Act (CEQA), whether the proposed activity is permitted or otherwise authorized by a lead agency, whether the end use or proposed end use of property on which the activity is proposed to occur is defined, and whether there may be adverse impacts from the proposed operation on commercial activities.

The SMGB must contemplate four specific criteria in considering granting a one-time exemption:

Criteria No. 1: Pursuant to PRC Section 2712(a), has an environmental review been completed on the proposed activity either separately or as part of a larger project?

Criteria No. 2: Pursuant to PRC Sections 2715 and 2770(a), is the proposed activity permitted or otherwise authorized by a local lead agency?

Criteria No. 3: Pursuant to PRC Sections 2711(b) and 2712, is the end use or proposed end use of property on which the proposed activity is to occur defined?

Criteria No. 4: Pursuant to PRC Sections 2714(b), have the potential impacts on commercial interests resulting from the proposed activity been considered?

**Table 11
Summary of SMARA Exemption Requests
From July 2000 to June 2014**

Date	City or County	Exemption Request
11/19/2000	Fresno County	Strahm Engineering, Gegunde Stock Pond,
8/16/2001	Yuba County	Jon Messick
8/16/2001	Lassen County	Fitch Sand & Gravel,
12/13/2001	City of Red Bluff	Ladd & Associates, Adobe Road-Interchange
7/11/2002	Yuba County	Baldwin Contracting Company
11/14/2002	Yuba County	Alice Sohrakoff,
4/10/2003	Kern County	Cactus Mine
5/23/2003	Yuba County	Baldwin Contracting,
3/12/2004	Kern County	B&B Materials, Inc.
6/10/2004	Santa Barbara County	Jeff & Shawn Montgomery, Montgomery Family Trust, Lambert Road, Carpinteria,
7/23/2004	Kern County	Smeed Family Trust, Tehachapi
03/13/2008	Mendocino	Willits Bypass,
	San Diego County	Hester Granite Pit
04/09/2009	Yuba County	Three Rivers Levee Improvement Authority
11/12/2009	Sacramento County	Natomas Urban Development Borrow Site, Sacramento Area Flood Control Agency
03/11/2010	Kern County	California Vision, Inc.
04/15/2010	Sacramento County	M & T Ranch
04/15/2010	Tehama County	Ford Construction
05/13/2010	Imperial County	The California Energy Commission
06/10/2010	Tulare County	Tea Pot Dome Water District
12/09/2010	Ventura County	California State University Channel Islands (CSUCI)
02/10/2011	Ventura County	Ojai Oil Company Project
09/08/2011	City of San Diego	Regional Beach Sand Project

Table 11 (Continued)
Summary of SMARA Exemption Requests
From July 2000 to June 2014

Date	City or County	Exemption Request
01/12/2012	County of Sutter	Goose Club Farms North Project
03/08/2012	County of Plumas	Spanish Creek in Meadow Valley Restoration Project
03/08/2012	County of Stanislaus	West Stanislaus Irrigation District (WSID) Main Canal Renovation Project
05/10/2012	County of Colusa	Proposed Sand Creek Project
06/14/2012	City of Santa Paula, County of Ventura	Proposed East Area I Property
04/11/2012	County of San Diego	Proposed San Cayatano Orchard Project
11/14/2013	County of Mendocino	Mendocino Forest Products (MFP) Site - Highway 101 (Operator, Desilva Gates), County of Mendocino
11/14/2013	County of Kern	Cooper Pit #1(CA Mine ID 91-15-0036), (Operator, GF Industries), Robert Thiess (Agent), County of Kern
01/09/2014	County of Mendocino	Proposed Barn Construction Project
01/09/2014	County of Imperial	Proposed English and McDonald Roads Marsh Restoration Project (Imperial Irrigation District)

Proposed Mendocino Forest Products (MFP) Site - Highway 101 (Operator, Desilva Gates), County of Mendocino: At its November 14, 2013, regular business meeting, the SMGB considered granting a one- time exemption from SMARA for the Proposed Willits Bypass Project located in Mendocino County. The original planned borrow site was known as “Oil Well Hill” and situated approximately 3 miles north of the subject site. Initially, the northern limits of the construction project extended past the proposed borrow site to an area referred to as Oil Well Hill. The borrow site being situated within the project limits would have been exempt from SMARA pursuant to the construction exemption under PRC Section 2714(b). However, due to budgetary concerns, the project was revised and shortened during the design process such that the Oil Well Hill borrow site is now situated north of the subject site.

The Willits Bypass project was underway and entailed a bypass of US 101 around the City of Willits. Once completed, the four-lane interchange at the end of the project will transition to two-lanes constructed on the ultimate northbound lanes immediately north of the southern interchange. The northern interchange will consist of two lanes. Phase one of the project will entail the use of about one million cubic meters of borrow material. Since Caltrans owns property adjacent to US 101, referred to as the Oil Well Hill borrow site, about three miles north of the City of Willits, this area was initially proposed as an optional borrow site. In 2008, the exemption from SMARA was granted by the SMGB for use of the Oil Well Hill borrow site. However, this request which was granted was never implemented.

On July 17, 2013, the County approved a grading permit. About 50,000 cubic yards were excavated and exported from the 50-acre site prior to August 18, 2013, when the grading permit was revoked. An additional 800,000 cubic yards remains in need. On October 14, 2013, a request for a one-time exemption from SMARA was submitted on behalf of Mendocino Forest Products for the removal of approximately 800,000 cubic yards of material from an approximately 22-acre area to be used by Caltrans for the Willits Bypass project, located in the County of Mendocino. The Mendocino Forest Products site is zoned industrial, and was used as a saw mill until about 2000. There are no recreational uses on the site, and the site is entirely out of view from public roads and neighbors. The request for a one-time exemption from SMARA was supported by Caltrans as noted in their correspondence dated October 14, 2013.

The SMGB conditionally granted the exemption pending the applicant attain all necessary permits and meet permit conditions set forth by the County of Mendocino, and any other agencies that have jurisdiction over any aspects of this project.

Proposed Cooper Pit #1(CA Mine ID 91-15-0036), (Operator, GF Industries), Robert Thiess (Agent), County of Kern: At its November 14, 2013, regular business meeting, the SMGB considered granting a one- time exemption from SMARA for the Proposed Cooper Pit #1. On behalf of GF Industries for a one-time exemption form SMARA for the Shell Pink Shale Pit Site, located in the County of Kern (County). The purpose of the proposed project is for GF Industries, who operates the Cooper Pit #1 (CA Mine ID #91-15-0036), to intermittently extract material from the Shell Pink Shale Pit (CA Mine ID #91-15-0069). In review of the SMARA database, the Shell Pink Shale Mine referenced is referred to as Calresources – PML Mine; no other information is provided on the database reflecting that such activity may have been deemed exempt from SMARA pursuant to PRC Section 2714(k). It is anticipated that the proposed shift in production from the Cooper Pit #1 site to the Shell Pink Shale Mine would entail less than 500,000 tons of material over a period of three to four years

The SMGB denied the exemption request.

Proposed Barn Construction Project, (Jon Green), County of Mendocino: At its January 9, 2014, regular business meeting, the SMGB considered granting a one- time exemption from SMARA for an agricultural-exempt barn construction project, located in the County of Mendocino (County). The purpose of the proposed project was to create an enclosed pasture and cattle corral by leveling about 21.8 acres of agricultural land, generating about 902,000 cubic yards of material. Such material would be made available for sale and subsequently exported offsite. The proposed project was subject to the County's building and zoning regulation (County Code Section 22.16.040.C Construction Exemption). A Grading Permit BU 2013-0341, was acquired albeit for a much reduced scope of activity allowed by the County. The County determined that the project as originally proposed was not applicable since the project was not deemed by the County as an "*integral and necessary*" element in the construction of structures and land improvements. Thus, the zoning clearance granted under the grading permit and associated grading was to be rescinded by the operator, and a use permit and associated documents as required under SMARA would be pursued. Prior to pursuing this alternative, an exemption from SMARA was requested.

The SMGB denied the exemption request.

Proposed English and McDonald Roads Marsh Restoration Project (Imperial Irrigation District), County of Imperial: At its January 9, 2014, regular business meeting, the SMGB considered granting a one- time exemption from SMARA from the Imperial Irrigation District (IID) for the English and McDonald Roads Marsh Restoration Project, located in the County of Imperial

(County). The purpose of the proposed project is for IID to incorporate a borrow site into its marsh restoration project; whereas, the borrow pits will eventually be incorporated into the aquatic wildlife habitat area in 2014. The borrow area is approximately 20 acres and the floor of the excavation is about 6 feet below existing ground elevation (at deepest point). The sides of the borrow cells have been sloped to provide a more stable bank and to allow for planting of aquatic vegetation in the areas.

The proposed project stems from heavy precipitation in 2012 which caused extensive flood damage to IID and County facilities. Many repairs required immediate attention. The proposed project is part of the second phase of a Managed Marsh complex, which includes the borrow pits, on three 150 acre parcels situated southwest of the intersection of Highway 111 and MacDonald Road. The complex encompasses approximately 970 acres of aquatic habitat designed to provide for the conservation of wildlife species normally located within wetland areas in the County and within the IID irrigation infrastructure.

The SMGB conditionally granted the exemption request to the IID, pending attaining all necessary permit conditions set forth by the County of Imperial, and any other agencies that have jurisdiction over any aspects of this project.

Financial Assurance Appeals

On September 10, 2012, Petitioner RiverPark filed with the SMGB an Intent to Appeal stating that the City of Oxnard failed to approve and timely act upon an adjusted financial assurance for the RiverPark Mine. RiverPark petitioned the SMGB to take jurisdiction of the appeal pursuant to the Surface Mining and Reclamation Act (SMARA), notably, Public Resources Code (PRC) Section 2770(e)(3). The current approved financial assurance amount was \$16,648,526. Although a significant amount of reclamation related work has been completed, no adjustment of the financial assurance amount had been made to date. As of April 23, 2011, the estimated amount of reclamation costs remaining was calculated to be on the order to \$2,843,723. The City's consultant forwarded a revised financial assurance cost estimate of \$5,016,175. This estimate reflected slope protection via use of rip rap or similar alternatives from elevation 36 to 60 feet, regrading of slope faces that exceed 2:1 (horizontal to vertical), and drainage devices along the top of slopes to prevent surface runoff. At its July 11, 2013, regular business meeting, the SMGB, based on a request from the operator and City, continued this matter for an additional 90 days. Subsequently, the Petitioner requested the matter be withdrawn since both parties agreed on a financial assurance cost estimate of \$5,016,175 as prepared by the Pioneer Law Group on behalf of the City of Oxnard, and dated March 28, 2013. The SMGB granted the withdrawal of the appeal.

Designation Appeals

One designation appeal was continued during the 2013-2014 period. At its March 14, 2013, regular business meeting, the SMGB held a public hearing on an Appeal to the SMGB regarding approval by the County of Fresno of the Carmelita Mine and Reclamation Project (Colony Land Company, LP, Operator), County of Fresno, pursuant to Public Resources Code Section 2775. Petitioner Friends of the Kings River (Friends, Petitioner) filed on October 30, 2012, with the SMGB an Intent to Appeal a decision by the County of Fresno (County) to approve a reclamation plan and Conditional Use Permit for the Carmelita Mine and Reclamation Project (Project) on land designated by the SMGB to contain regionally significant mineral resources on the grounds that the permit and reclamation plan for the Project were not in compliance with SMARA and the County's Zoning Ordinance 858. Friends petitioned the SMGB to take jurisdiction for the appeal pursuant to SMARA, and specifically, PRC Section 2775(a). Pursuant

to PRC Section 2775(c), the SMGB shall not exercise its independent judgment on the evidence but shall only determine whether the decision of the County is supported by substantial evidence in the light of the whole record. If the SMGB determines the decision of the County was not supported by substantial evidence in the light of the whole record it shall remand the appeal to the County and the County shall schedule a public hearing to reconsider its action.

Under the provisions of SMARA, the SMGB has authority to designate in regulation specific geographic areas of the State of California as having statewide or regional mineral significance (ref. PRC Section 2790). SMARA Section 2775(a) provides that the SMGB may hear an appeal of an applicant whose request for a permit to conduct a surface mining operation in an Area of Regional Significance (as defined PRC Section 2726) has been denied by a lead agency. The SMGB has, pursuant to PRC Section 2775(b), established procedures in 14 CCR Section 3625 et seq. for determining if the grounds upon which a petition to appeal are made raise significant issues that are within the jurisdiction of the SMGB. PRC Section 2775(c) provides an administrative process for appeals the SMGB decides not to decline. Specifically, PRC Section 2775 et seq. states:

“(a) An applicant whose request for a permit to conduct surface mining operations in an area of statewide or regional significance has been denied by a lead agency, or any person who is aggrieved by the granting of a permit to conduct surface mining operations in an area of statewide or regional significance, may, within 15 days of exhausting his rights to appeal in accordance with the procedures of the lead agency, appeal to the board.

(b) The board may, by regulation, establish procedures for declining to hear appeals that it determines raise no substantial issues.

"Appeals that the board does not decline to hear shall be scheduled and heard at a public hearing held within the jurisdiction of the lead agency which processed the original application within 30 days of the filing of the appeal, or such longer period as may be mutually agreed upon by the board and the person filing the appeal. In any such action, the board shall not exercise its independent judgment on the evidence but shall only determine whether the decision of the lead agency is supported by substantial evidence in the light of the whole record. If the board determines the decision of the lead agency is not supported by substantial evidence in the light of the whole record it shall remand the appeal to the lead agency and the lead agency shall schedule a public hearing to reconsider its action."

The administrative process for a designation appeal under PRC Section 2775 et seq. is provided under CCR Section 3626 which states:

“Any person filing an appeal to the Board pursuant to PRC 2775 shall, within 15 days of exhausting his or her rights to appeal in accordance with the procedures of the lead agency, file an intent to appeal by submitting the following information. Failure to submit all the required, completed documents to the Board within the 15 day filing period will result in an incomplete filing of intent and an automatic rejection of the appeal....”

CCR Section 3627 provides three criteria upon which the Chairman shall make his decision to accept or deny a hearing on the appeal:

“(a) Whether the appeal raises any issues which legally can be addressed by the Board within the limits of the Public Resources Code and the rules of the Board; and,

(b) Whether the appeal specifically relates to the approval or denial of a permit to conduct surface mining operations in an area designated by the Board as being of statewide or regional significance.

(c) Whether the appeal is that of a lead agency’s reconsideration of an appeal previously remanded by the board to that lead agency, and the appellant’s challenge raises no new substantial issues with respect to the action taken by the lead agency to approve or deny the permit to conduct surface mining operations.”

The proposed project site is within the jurisdictional boundaries of the County and is situated south of State Route 180, east of the Kings River, approximately 15 miles east of the City of Fresno, six miles east of the City of Sanger, in an unincorporated area of the County. Colony Land Company LP (Applicant) submitted an application to the County for a Conditional Use Permit and Reclamation Plan dated May 2012 to develop and reclaim an aggregate mine and related processing plant, concrete and asphalt plants, and a recycling plant on 886 acres of a 1,500 acre site, which is further comprised of 14 parcels. The project is proposed to be operated by Carmelita Resources. Most of the site is currently in fruit plant production. The project is anticipated to have a maximum production rate of 1.25 million tons of aggregate per year, with an operating life of 100 years.

The proposed project area is also located within Sector K of the Fresno Production-Consumption Region (CCR Section 3550.13), an area of statewide or regional significance. The area where the project is proposed has been classified by the California Geological Survey (CGS; formerly California Division of Mines and Geology) as a Mineral Resources Zone (MRZ) since 1986, and incorporated as MRZ in the Fresno County General Plan in 1987. The area where the proposed project site is located, Sector K, was designated by the SMGB as being of regional significance in 1988. The proposed project area is zoned agricultural; the site would be converted to non-agricultural use.

The reclamation plan calls for backfilling a portion of the 886 acres to be mined, reclaiming up to 240 acres for agricultural purposes. Depending on the amount of available fill, as much as 646 acres of the site will be left as water basins. Such water basins would be maintained completely devoid of vegetation or habitat value in order to deter wildlife. Note that the Environmental Impact Report states, “a maximum of 583 acres may be permanently removed from agricultural production. . . .”; which is in conflict with the reclamation plan. Notably, being in close proximity to the Reedley Municipal Airport, the project proponent has determined that the water basins will need to be maintained void of vegetation and habitat value in perpetuity to reduce potential risk of aircraft striking birds.

At its March 14, 2013 regular business meeting, the SMGB granted the appeal, denied the County’s approval of the reclamation plan on procedural grounds, and remanded the reclamation plan back to the County for approval consideration upon completion of the reclamation plan.

Second Intent to Appeal: On August 16, 2013, Petitioner Friends filed with the SMGB a second Intent to Appeal a decision by the County to approve an amended reclamation plan and Conditional Use Permit for the Project pursuant to SMARA, and specifically, PRC Section 2775(a). Pursuant to PRC Section 2775(c), the SMGB shall not exercise its independent

judgment on the evidence but shall only determine whether the decision of the County is supported by substantial evidence in the light of the whole record. If the SMGB determines the decision of the County was not supported by substantial evidence in the light of the whole record, it shall remand the appeal to the County and the County shall schedule a public hearing to reconsider its action.

At its November 14, 2013 regular business meeting, the SMGB held a public hearing in the matter of a designation appeal under PRC Section 2775 and determined that the decision of the County was supported by substantial evidence in the light of the whole record, and upheld the decision of the County to approve a permit and reclamation plan for the project.

At its January 9, 2014, regular business meeting, the SMGB adopted its findings as outlined below. In adopting such findings, the SMGB analyzed and considered all of the following documents and testimony:

1. All correspondence and documents received since the SMGB's original determination in March 2013 and receipt of the second Intent to Appeal.
2. Intent to Appeal and associated exhibits.
3. The Administrative Record.
4. Oral testimony presented during the November 14, 2013, public hearing of the SMGB.

The administrative record included all written documents and oral testimony received and all statements made during the public hearings, as well as transcripts from the SMGB's public hearing previously held on November 14, 2013.

Findings: Based on the evidentiary materials, the SMGB adopted the following findings:

Slope Stability

- Finding No. 1: The Appellant alleged that the Reclamation Plan violated CCR Section 3704(d)(f) because there was still not enough data and analysis in the record to support the conclusions regarding slope stability. The County decision to approve the project in consideration of CCR Section 3704(d)(f) was based largely on review of the report prepared by Golder Associates dated March 8, 2013, titled "*Slope Stability Analysis, Carmelita Mine and Reclamation Project*", which comprised Appendix D of the April 2013 Reclamation Plan. The County's decision was based on substantial evidence.
- Finding No. 2: The Appellant alleged that the Reclamation Plan violated CCR Section 3502(b)(3) because the engineered grading and drainage plan and the calculated water balance for the Project failed to provide adequate information regarding slope stability and probable water content of the post-mining pits. The County's decision to approve the project in consideration of CCR Section 3502(b)(3) was largely based on information and documentation provided in the April 2013 Reclamation Plan (pp. 17 – 20), Slope Stability Analysis, Carmelita Mine and Reclamation Project (Appendix D of the April 2013 Reclamation Plan), Engineered Grading and Drainage Plan (Appendix E of the April 2013 Reclamation Plan), and Postmining Water Balance (Appendix F of the April 2013 Reclamation Plan). The County's decision was based on substantial evidence.

Water Issues

- Finding No. 3: The Appellant alleged that the Reclamation Plan violated CCR Section 3706(b) because it did not adequately address impacts to groundwater and aquifer storage. The County's decision to approve the project in consideration of CCR Section 3706(b) was largely based on information and documentation provided in the April 2013 Reclamation Plan (pp. 17 – 20 and 25-26), and Postmining Water Balance (Appendix F of the April 2013 Reclamation Plan). The County's decision was based on substantial evidence.
- Finding No. 4: The Appellant alleged that the Reclamation Plan for the Project violates CCR Sections 3707 and 3708 because approximately 600 acres of Prime and Important agricultural lands will not be reclaimed to produce any crops, and may or may not perform the dubious "function" identified as "water basins." The County's decision to approve the project in consideration of CCR Sections 3707 and 3708 was largely based on information and documentation provided in the April 2013 Reclamation Plan (pp. 17 – 20), and Postmining Water Balance (Appendix F of the April 2013 Reclamation Plan). The County's decision was based on substantial evidence.

Useable Condition and Beneficial End Use

- Finding No. 5: The Appellant alleged that the Project violated PRC Sections 2733 and 2712(a), (b) and (c) because most of the Project area would not be reclaimed to a usable condition, and there was evidence to show that the Project and proposed reclamation would harm the watershed and also create public health and safety hazards. The County's decision to approve the project in consideration of PRC Sections 2733 and 2712(a), (b) and (c) was largely based on information and documentation provided in the April 2013 Reclamation Plan (pp. 17 - 38). The County's decision was based on substantial evidence.
- Finding No. 6: The Appellant alleged that the Project violates PRC Section 2711(b) because the Project area will not result in the "*subsequent beneficial use* of the mined and reclaimed land." The County's decision to approve the project in consideration of PRC Section 2711(b) was largely based on information and documentation provided in the April 2013 Reclamation Plan (pp. 17 - 38). Notably, the dominant beneficial use of water and in the surrounding area will be agriculture as noted in the April 2013 Reclamation Plan (page 25). The County's decision was based on substantial evidence.
- Finding No. 7: The proposed mine site, because of its proximity to a local airport, presented unique constraints on the ultimate beneficial use of the water basins that were proposed by the project reclamation plan. Ordinarily, a pond or similar water feature, following reclamation, could be developed as a more natural feature, essentially becoming useful wildlife habitat. In the Carmelita Mine situation, it was necessary that the project proponent reduce the attractiveness of the water basins to bird life specifically, to prevent dangerous interaction between waterfowl and the aircraft using the nearby airport. Given this limitation, the project proponent's proposed treatment of the water basins, including reduction of aquatic vegetation, which would have limited value to waterfowl but not to other wildlife, was a qualifying beneficial end use for the project.
- Finding No. 8: The Appellant alleged that the Project and Plan violate PRC Section 2711(b) because the Plan fails to clearly identify how reclamation would be completed

and the Project area transition to any subsequent beneficial use and its operation and maintenance. The County's decision to approve the project in consideration of PRC Section 2711(b) was largely based on information and documentation provided in the April 2013 Reclamation Plan (pp. 17 - 38). The County's decision was based on substantial evidence.

Reclamation Plan Appeals

Pursuant to PRC Section 2770(e), a person who, based on the evidence of the record, can substantiate that a lead agency has either (1) failed to act according to due process or has relied on considerations not related to the specific applicable requirements of Sections 2772, 2773, and 2773.1, and the lead agency surface mining ordinance adopted pursuant to subdivision (a) of Section 2774, in reaching a decision to deny approval of a reclamation plan or financial assurances for reclamation, (2) failed to act within a reasonable time of receipt of a completed application, or (3) failed to review and approve reclamation plans or financial assurances as required by subdivisions (c) and (d), may appeal that action or inaction to the board. No reclamation plan appeals were received during the 2013-2014 annual reporting period.

SMARA Lead Agency Review

The SMGB received comments and complaints about SMARA lead agencies through three venues: public complaints (i.e., citizen, operator, environmental groups, etc.), referrals from OMR Lead Agency Review Team (LART), or follow-up from a 15-Day Notice issued by OMR to a SMARA lead agency.

In 2007, the SMGB published Information Report IR 2006-07 titled "*Report on SMARA Lead Agency Performance Regarding Mine Reclamation.*" This evaluation assessed the lead agency's performance of periodic mine inspections, adjustment of annual financial assurances and enforcement of the preparation of Interim Management Plans should a surface mine site be characterized as idle for a period exceeding one year. Based on this review, the overall performance of SMARA lead agencies was found to significantly vary throughout the state. For the most part, overall performance was found to be poor, reflecting a number of factors including primarily financial constraints, and limited or absence of technical expertise. In 2007, the Department of Conservation through OMR established the LART.

A summary of lead agency issues heard by the SMGB, including review of LART reports, is presented in Table 12. During the 2013-2014 annual reporting period, the SMGB reviewed the SMARA programs for the County of Yolo. 45-Day Notices to Correct Deficiencies were issued to the Counties of San Mateo, Marin, Mendocino, Monterey and San Mateo. In all these cases the lead agencies resolved the deficiencies to the SMGB's satisfaction.

Table 12
Summary of SMARA Lead Agencies Addressed by the SMGB as of June 2014

LART Report	Description	Date of LART Report	SMGB Action	Resolution
Cities	Bakersfield	11/21/2012	LART report presented on 12/13/2012; 45-Day Notice to Correct Deficiencies Issued 12/20/2012	Resolved to SMGB's satisfaction
	Chula Vista	2/15/2012	No action taken	
	Fremont	3/12/2013	LART report presented on 6/13/2013	Resolved to SMGB's satisfaction
	Lake Elsinore	No report prepared	45-Day Notice to Correct Deficiencies issued 12/16/2010	Resolved to SMGB's satisfaction
	Oceanside	2/15/2012	No action taken	
	Pacifica	10/3/2012	LART report presented on 10/11/2012; 45-Day Notice to Correct Deficiencies Issued 10/16/2012	Resolved to SMGB's satisfaction
	Taft	10/3/2012	LART report presented on 10/11/2012; 45-Day Notice to Correct Deficiencies Issued 10/16/2012	Resolved to SMGB's satisfaction
	Tracy	3/13/2013	No action taken	
	Truckee	2/17/2011	No action taken	
	Alameda	2/22/2011	No action taken	
Counties	Alpine	9/8/2010	LART Report presented on 12/9/2010	Assumed via MOU in 2011
	Colusa	4/15/2012	LART report presented; 45-Day Notice to Correct Deficiencies issued 05/16/2012	Resolved to SMGB's satisfaction
	Del Norte	11/30/2012	LART report presented on 12/13/2012; 45-Day Notice to Correct Deficiencies issued 12/20/2012	Resolved to SMGB's satisfaction
	El Dorado County	Not applicable	45-Day Notice to Correct Deficiencies issued	Assumed by SMGB in 2001
	Lake	12/5/2011	No action taken	
	Madera	5/17/2012	LART report presented on 9/13/2012; 45-Day Notice to Correct Deficiencies Issued 10/16/2012	Resolved to SMGB's satisfaction

Table 12 (continued)
Summary of SMARA Lead Agencies Addressed by the SMGB as of June 2014

LART Report	Description	Date of LART Report	SMGB Action	Resolution
	Marin	3/13/2013	LART report presented; 45-Day Notice to Correct Deficiencies issued 06/18/2013	Pending Resolution
	Mariposa	5/29/2012	45-Day Notice to Correct Deficiencies Issued 06/21/2012	Resolved to SMGB's satisfaction
	Mendocino	7/19/2012	LART report presented on 9/13/2012; 45-Day Notice to Correct Deficiencies issued 10/30/2012	Pending Resolution
	Merced	9/20/2011	No action taken	
	Mono	2/28/2011	45-Day Notice to Correct Deficiencies Issued 10/16/2012	Resolved to SMGB's satisfaction
	Monterey	2/22/2013	LART report presented on 6/13/2013; 45-Day Notice to Correct Deficiencies issued 10/16/2013	Pending Resolution
	Napa	10/7/2009	No action taken	
	Nevada	2/15/2012	No action taken	
	San Diego	2/17/2012	No action taken	
	San Mateo	10/3/2012	LART report presented on 10/11/2012; 45-Day Notice to Correct Deficiencies issued 10/16/2012	Pending Resolution
	Santa Cruz	4/1/2010	No action taken	
	Santa Clara	Not applicable	45-Day Notice to Correct Deficiencies issued	Resolved to SMGB's satisfaction
	Sierra	Not applicable	45-Day Notice to Correct Deficiencies issued	Resolved to SMGB's satisfaction
	Siskiyou	Not applicable	45-Day Notice to Correct Deficiencies issued	Resolved to SMGB's satisfaction
	Tuolumne	8/2009	No action taken	
	Yolo	9/5/2012	LART report presented on 10/11/2012	Pending Resolution
	Yuba	Not applicable	45-Day Notice to Correct Deficiencies issued 10/01/2001	Assumed by SMGB in 2002

SMGB AS A SMARA LEAD AGENCY

There are four circumstances when the SMGB is empowered to assume local SMARA lead agency authority:

1. When the lead agency's mining ordinance has been determined to be deficient by the SMGB, the SMGB assumes authority to review and approve new reclamation plans and plan amendments until a revised ordinance is certified by the SMGB. There were two lead agencies in this category as of June 30, 2014.
2. When a local jurisdiction has no mining ordinance, yet has a surface mining operation(s), or a proposed surface mining operation(s) within its jurisdiction. There were six lead agencies in this category as of June 30, 2014.
3. When the SMGB accepts an appeal petition from an aggrieved person alleging a lead agency's inaction or its denial of a reclamation plan or financial assurance, the SMGB may uphold or override that denial. There were no reclamation plan or financial assurance appeals for this annual reporting period.
4. When the SMGB determines that a lead agency is unable to uphold one or more of its responsibilities under SMARA. There were three lead agencies in this category as of June 30, 2014; Alpine County, El Dorado County and Yuba County.

In March 2000 the SMGB assumed from El Dorado County its SMARA authority to annually inspect surface mines. The SMGB determined that annual mine inspections performed by the County were not adequate to determine the true operating and compliance status of the surface mines within the County's jurisdiction. In 2001 and 2002 the SMGB assumed full SMARA lead agency authority from the County of El Dorado and County of Yuba, respectively. On June 7, 2011, the SMGB assumed SMARA lead agency authority from the County of Alpine via a Memorandum of Understanding (MOU).

As of June 2014, the SMGB serves as lead agency under SMARA for 46 individual mining operations located in California. Of these 46 surface mining operations, 28 are located within three counties (County of Alpine, County of El Dorado and County of Yuba), 10 are located within cities that do not have certified surface mining ordinances, and 8 are dredging operations located within the San Francisco Bay and bay delta areas (Table 13).

The SMGB may assume a local jurisdiction's authority to administer SMARA under certain circumstances. Specifically, PRC Section 2774.4 states:

“(a) If the board finds that a lead agency either has (1) approved reclamation plans or financial assurances which are not consistent with this chapter, (2) failed to inspect or cause the inspection of surface mining operations as required by this chapter, (3) failed to seek forfeiture of financial assurances and to carry out reclamation of surface mining operations as required by this chapter, (4) failed to take appropriate enforcement actions as required by this chapter, (5) intentionally misrepresented the results of inspections required under this chapter, or (6) failed to submit information to the department as required by this chapter, the board shall exercise any of the powers of that lead agency under this chapter, except for permitting authority.”

Several figures showing surface mining sites located within the jurisdiction of the SMGB as a SMARA lead agency are presented in Figures 5 through 8.



Figure 5. Former aggregate extraction pond within the Yuba Goldfields near the community of Hallwood in Yuba County showing reclaimed shoreline. (Photo credit: Will Arcand)

PRC Section 2774.5 requires the SMGB to assume full authority for reviewing and approving reclamation plans in any jurisdiction in which the lead agency does not have a certified surface mining ordinance. As of June 2014, the SMGB serves as SMARA lead agency for eight cities that have surface mining operations within their jurisdiction, but do not have surface mining ordinances certified by the SMGB.

Additionally, the SMGB acts as the SMARA lead agency for all surface mining operations under the jurisdiction of the San Francisco Bay Conservation and Development Commission (BCDC). The San Francisco BCDC jurisdiction includes open water, marshes, mud flats and shorelines immediately adjacent to San Francisco Bay and its surrounding Bays and tributary water bodies. As of June 2014 there were eight marine dredging operations that have approved reclamation plans in place, for which the SMGB oversees SMARA compliance (Figure 9).

Lastly, as of June of 2014 the SMGB has identified 94 surface mining operations within California that are either owned or operated by a SMARA lead agency. The SMGB has determined that it is inappropriate for local lead agency staff, or consultants that have been employed by such lead agencies during the 12 months prior to the inspection date, to conduct annual surface mine inspections at these sites due to a potential conflict of interest under CCR Section 3504.5(c). Specifically, CCR Section 3504.5(c) states:

“A surface mine inspection shall not be performed by any person who holds a financial interest in or has been employed by the surface mining operation in any

capacity, including as a consultant or as a contractor, during the year preceding the inspection.”

As such, these surface mining operations, referred to as Financial Conflict Sites, should be inspected by SMGB staff. As of June 2014 SMGB staff has commenced conducting inspections on 3 of the 94 sites identified.



Figure 6. Merrill Borrow Pit located in Alpine County. (Photo credit: Will Arcand)



Figure 7. Atkinson Pit No. 1 located in the City of Compton. This former open pit clay mine is being reclaimed via backfilling to the adjacent street level for future retail and/or industrial land use. (Photo credit: Will Arcand)



Figure 8. View of the open pit of the former Big Gun Quarry within the City of Rocklin. This historic granite quarry is currently undergoing reclamation. (Photo credit: Will Arcand)



Figure 9. Satellite image of San Francisco Bay and surrounding areas showing locations of San Francisco BCDC marine dredging operations (in red) under the jurisdiction of the SMGB. (Modified after Google Maps, 2009)

The status of all surface mining operations currently under the jurisdiction of the SMGB as a SMARA lead agency, as of June 30, 2014, is summarized in Table 13.

**Table 13
SMGB SMARA LEAD AGENCY SURFACE MINES**

CA ID No.	Mine Name	Status	Primary Commodity	Local Lead Agency
91-02-0001	Merrill Borrow Pit	Active	Sand and Gravel	County of Alpine
91-02-0002	Gansberg Sand	Active	Sand and Gravel	County of Alpine
91-02-0004	Diamond Valley Borrow Site	Mining Completed - Reclamation In Progress	Sand and Gravel	County of Alpine
91-02-0005	Fredricksburg Gravel Pit	Idle	Sand and Gravel	County of Alpine
91-07-0006	Richmond (Chevron) Quarry	Mining Completed - Reclamation In Progress	Franciscan Rock, Recyclable Concrete and Asphaltic Material	City of Richmond
91-09-0001	Bear Creek Quarry	Active	Serpentinite Rock	County of El Dorado
91-09-0002	Weber Creek Quarry	Idle	Serpentinite Rock	County of El Dorado
91-09-0003	Diamond Quarry	Active	Limestone	County of El Dorado
91-09-0004	Chili Bar Slate Mine	Active	Slate	County of El Dorado
91-09-0005	Cool Cave Quarry	Active	Limestone	County of El Dorado
91-09-0006	Timm Mine	Idle	Specimen Gold	County of El Dorado
91-09-0009	Somerset Sand Pit	Active	Granitic Sand	County of El Dorado
91-09-0010	Lawyer Pit	Active	Granitic Sand	County of El Dorado
91-09-0012	Snows Road Quarry	Active	Alluvial Sand and Gravel, Placer Gold	County of El Dorado
91-09-0015	Marin Quarry	Idle	Granodiorite	County of El Dorado
91-09-00XX	Big Cut Mine	Active, Unpermitted Illegal Mining Operation	Sand, Gravel, Placer Gold	County of El Dorado
91-19-0004	Atkinson Pit I	Mining Completed - Reclamation In Progress	Clay	City of Compton
91-27-0006	Lapis	Active	Beach Sand	City of Marina
91-31-0013	Big Gun Quarry	Mining Completed - Reclamation In Progress	Granite	City of Rocklin
91-33-0002	Avalon Mine	Active	Granitic Rock, Sand and Gravel	City of Jurupa Valley
91-33-0029	Philadelphia Recycling Mine	Active	Fill Dirt	City of Jurupa Valley
91-33-0062	Pyrite Quarry	Active	Granitic Rock, Sand and Gravel	City of Jurupa Valley
91-33-0003	Super Creek Quarry (Painted Hills)	Active	Decorative Stone	City of Desert Hot Springs

**Table 13 (Continued)
SMGB SMARA LEAD AGENCY SURFACE MINES**

CA ID No.	Mine Name	Status	Primary Commodity	Local Lead Agency
91-33-0031	Garnet Pit	Active	Alluvial Sand	City of Palm Springs
91-38-0001	Alcatraz, Presidio, Point Knox	Active	Marine Sand	San Francisco BCDC
91-38-0002	Point Knox South	Active	Marine Sand	San Francisco BCDC
91-38-0003	Point Knox Shoal	Active	Marine Sand	San Francisco BCDC
91-38-0004	Alcatraz South Shoal	Active	Marine Sand	San Francisco BCDC
91-38-0005	Hanson Suisun Bay	Active	Marine Sand	San Francisco BCDC
91-38-0006	Hanson Suisun Bay Middleground Shoal	Active	Marine Sand	San Francisco BCDC
91-38-0007	Jerico Suisun Bay Middle Ground Shoal	Active	Marine Sand	San Francisco BCDC
91-38-0011	Morris Tug & Barge Marine Oyster Shell Mining	Active	Marine Oyster Shells	San Francisco BCDC
91-56-0034	Santa Paula Materials	Active	Alluvial Sand and Gravel	City of Santa Paula
91-58-0001	Western Aggregates	Active	Alluvial Sand and Gravel	County of Yuba
91-58-0002	Knife River Hallwood	Active	Alluvial Sand and Gravel	County of Yuba
91-58-0003	Cal Sierra Development	Active	Gold	County of Yuba
91-58-0004	Sperbeck Quarry	Active	Metabasalt	County of Yuba
91-58-0006	Teichert Hallwood	Active - Reclamation In Progress	Alluvial Sand and Gravel	County of Yuba
91-58-0007	Wheatland Clay	Idle - Reclamation Complete	Clay	County of Yuba
91-58-0011	Dantoni Pit	Active	Alluvial Sand and Gravel	County of Yuba
91-58-0013	Parks Bar Quarry	Active	Metabasalt	County of Yuba
91-58-0019	Teichert Marysville (Yuba-Hoffman)	Idle	Alluvial Sand and Gravel	County of Yuba
91-58-0021	Blue Point Mine	Reclamation Complete - Post Reclamation Monitoring	Alluvial Sand and Gravel	County of Yuba
91-58-0022	Silica Resources	Active	Alluvial Sand and Gravel	County of Yuba
91-58-0023	Silica Resources #2 (Formerly Garcia Sand & Gravel)	Active	Alluvial Sand and Gravel	County of Yuba
91-58-0025	Simpson Lane	Idle	Alluvial Sand	County of Yuba

As illustrated in Table 13, the primary mineral commodities, and therefore the local and regional geologic settings of the surface mining operations under the SMGB's jurisdiction as a SMARA Lead Agency vary widely. Within Alpine County, which cloaks a portion of the spine of the Sierra Nevada Mountains, three of the four mine sites are located at the toe of the eastern flank of the Sierra Nevada Mountain Range. These sites are situated on alluvial fan and glacial moraine deposits that are

dominated by sands, gravels and cobbles of mixed lithology derived from the eastern range front. One additional site within Alpine County is located at high elevation on a volcanic flow deposit comprised of andesites and rhyolites of Tertiary age. Despite the relatively long haul distance, rocks from this particular quarry are commonly used for stream and habitat restoration projects within the Lake Tahoe basin as they are both durable and certified as noxious weed-free by the USFS.

Surface mines within El Dorado County exhibit the most variability in terms of local geology and mined products for counties under the SMGBs lead agency jurisdiction. Western and Central El Dorado County occupy a portion of the western slope of the Sierra Nevada Mountains, and outcrops range from Paleozoic metasedimentary rocks, to Mesozoic granitics to Tertiary sands and gravels. Serpentinite, slate and lode gold is mined from sites located along the Mother Lode belt, in addition to younger auriferous sands, gravels and placer gold deposits. Two mines extract high quality, Jurassic limestone used primarily for durable building products, while several others mine granitic rock used mainly for treating road surfaces.

Well sorted marine sand is mined from the bottom of San Francisco Bay and the Sacramento/San Joaquin Bay/Delta estuary by suction dredges operating on State Lands Commission lease areas (Figure 9). This high quality sand is utilized primarily for aggregate building products.

The Yuba Goldfields encompasses approximately 10,000 acres along about 15 miles of the Yuba River between Marysville and Parks Bar in western Yuba County. This unique area is dominated by tailings that were created when dredging of gold from the river channel choked by hydraulic waste, and dredging of the adjacent floodplain deposits, began in 1902 near the town of Hammonton. By 1910, fifteen bucket-line dredges were operating in the lower Yuba River, and the area has been dredged and re-dredged intermittently to progressively greater depths until the present time. In 1988, the CGS classified the area Mineral Resource Zone MRZ-2 for construction aggregate and determined that almost 23 square miles of the goldfields, containing more than 2.25 billion tons of PCC-grade aggregate, were available. The area was never designated as a “regionally significant” mineral resource because the SMGB had put the designation process on hold in order to dedicate maximum funds to accelerate mineral land classification. Nonetheless, it is undoubtedly one of the most significant aggregate deposits in the entire state. The CGS in their report *Aggregate Availability in California – Map Sheet 52 (Updated 2006)* notes that the Yuba City – Marysville Production-Consumption Region is the only region statewide that can meet its 50-year demand for aggregate. Seven surface mining operations under the SMGB’s jurisdiction operate within the historic Yuba Goldfields and produce primarily sand and processed gravels as products for the construction industry. One surface mining operation runs a refurbished bucket-line dredge and mines heavy minerals, including primarily placer gold, from the Yuba Goldfields.

Two surface mining operations within Yuba County currently mine metabasalt from hard rock quarries in ophiolite deposits at the base of the Sierra Nevada foothills, and one site just west of the Goldfields has been utilized solely for very well sorted, fine grained channel deposit specialty sand. Mining and reclamation is nearly complete on two sites within Yuba County, one of which is located near the community of Smartsville where auriferous gravels were formerly mined with hydraulic water monitors, and another near the town of Wheatland, where shallow silty clay deposits have been mined for use in the manufacture of pipes, bricks and related building materials.

Variability in geologic setting is even greater for the eight cities hosting surface mining operations under the SMGB’s SMARA jurisdiction. Within the City of Richmond, a hard rock quarry that formerly mined Franciscan sandstones and shales of Cretaceous to Jurassic age is now solely utilized as a recycling plant for concrete and asphalt construction debris. Within the City of Compton a former clay pit and brick plant is nearly backfilled and reclaimed for use as industrial/retail property. Modern marine beach sand deposits are mined from the back beach of a portion of shoreline along Monterey Bay utilizing a

small suction dredge. These marine sands are washed, sorted and processed for use as specialty products such as sand filter media and well packing sand. Tertiary granitic building stone was formerly mined from a now nearly reclaimed quarry in Rocklin at the western edge of the Western Slope of the Sierra Nevada Mountains. Within the City of Jurupa Valley in the Inland Empire of Southern California, two surface mining operations produce rock, sand and gravel products mined from Cretaceous granitic deposits. The third operation within the City of Jurupa Valley is situated on Quaternary alluvial deposits of silts, sands and gravels, although extraction no longer occurs at this site as pit backfilling and recycling of imported construction debris is ongoing. Metamorphic decorative stone landscaping products are mined from a hillside quarry situated adjacent to the San Andreas Fault within the City of Desert Hot Springs, while just across the fault to the southeast, Quaternary alluvial sand products are mined from an open pit located within the City of Palm Springs. Finally, within the City of Santa Paula, Quaternary alluvial sand, gravel and cobble products derived from cleaning out local flood control channels, along with imported construction debris, are processed and utilized as aggregate building products.

During the 2013-2014 reporting period, SMGB SMARA Lead Agency staff conducted 46 annual inspections of surface mining operations, completed 46 annual inspection reports, and presented 46 annual inspection reports to the SMGB at their regularly scheduled meetings. In addition, SMGB SMARA Lead Agency staff reviewed 23 revised financial assurance cost estimates that were provided by mine operators directly under SMGB SMARA Lead Agency jurisdiction. An additional 15 financial assurance cost estimates that were not updated by mine operators during the reporting period were reviewed by SMGB staff as part of the annual inspection process. The 8 BCDC marine dredging operations do not require annual financial assurance cost estimate updates.

Enforcement Actions: The Big Cut Mine is an unpermitted and illegal surface mining operation located south of Placerville in El Dorado County. The Big Cut Mine property encompasses approximately 150 acres, and is located off Big Cut Road, approximately 1.5 miles south of the town of Placerville, and about 2 miles northwest of the community of Diamond Springs. Both gold and aggregate have been mined from the Big Cut Mine site and vicinity. The Big Cut Mine is situated on a south-facing slope, and is characterized by two distinct east-west oriented benches. Surface mining operations are primarily located on and immediately adjacent the lower of these two benches at an elevation of approximately 1,950 feet above mean sea level (msl). During the time period from April 2010 through September 2013 significant surface disturbance was noted resulting from mining activity throughout the property, affecting an estimated total of 60 acres (Table 14).

**Table 14
Chronology of Pertinent Events and Actions
Big Cut Mine Illegal Mining Operation**

Date	Events or Actions
6/14/2007	SMGB approves Interim Financial Assurance Cost Estimate amount of \$166,931.50 for reclamation of areas previously disturbed by unpermitted surface mining activities. Interim Financial Assurance received by SMGB on 1/31/2008.
9/11/2008	Surface Mining Standards Committee of the SMGB moves to recommend approval of the proposed Reclamation Plan for the Big Cut Mine pending completion of environmental review pursuant to the requirements of the California Environmental Quality Act (CEQA).
3/2/2009	Administrative Draft Initial Study and Proposed Mitigated Negative Declaration: Big Cut Mine Reclamation Plan, dated February 2009, received by SMGB. SMGB staff stays review of this document pending the outcome of a vested rights determination requested by the owners/operators, as such determination affects the required scope of CEQA analysis.
4/1/2010	SMGB staff inspects Big Cut Mine site and determines approximately 4 acres disturbed by surface mining operations.
4/15/2010	SMGB determines that mine owners/operators had not demonstrated by a preponderance of evidence that Big Cut Mine has vested rights.
6/10/2010	SMGB adopts Resolution No. 2010-05 denying the claim of vested rights for surface mining operations at the Big Cut Mine.
9/3/2010	SMGB issues Notice of Violation (NOV) to Big Cut Mine owners/operators for operating a surface mine without an approved Reclamation Plan, Financial Assurance, and County Permit to Mine. NOV subsequently received by owner/operator on 9/7/2010.
11/10/2010	SMGB moves to issue Order to Comply (OTC) to owners/operators to immediately cease illegal surface mining activities and commence corrective actions to bring activities at Big Cut Mine site into compliance with SMARA. SMGB also moved to set Public Hearing date for OTC of 2/10/2011.
12/10/2010	SMGB issues OTC. OTC subsequently received by owners/operators on 12/16/2010.
1/19/2011	SMGB receives additional Interim Financial Assurance Cost Estimate in partial response to 12/10/2010 OTC. However, additional estimate is only in the amount of \$20,683.00, and only applies to areas <i>outside of</i> the previously proposed Reclamation Plan boundaries.
	Owners/operators deny SMGB staff's request for permission to inspect Big Cut Mine site to verify the validity of the Interim Financial Assurance Cost Estimate with current site conditions.
1/21/2011	SMGB and El Dorado County staff access neighboring property to the north of Big Cut Mine site, and observe active surface mining activities at the Big Cut Mine site.
1/28/2011	SMGB staff accompanies El Dorado County personnel to inspect Big Cut Mine site under civil warrant. Property owner is cited by County for violating two County ordinances (mining without a Special Use Permit and grading without a permit). Extensive illegal surface mining activities are confirmed to be occurring on site, with an additional 11 acres estimated disturbed since the inspection on 4/1/2010.
2/10/2011	SMGB upholds its 12/10/2010, OTC.
3/10/2011	SMGB issues Order Imposing Administrative Penalty in the amount of \$100,000.00 to Big Cut Mine owners/operators for failure to comply with 9/3/2010 NOV and 12/10/2010 OTC, e.g. failure to obtain required permits, failure to provide a remediation plan to correct effects of illegal mining and for failure to provide an adequate financial assurance cost estimate. Owner/operator (Hardesty) receives the order on 3/16/2011.
4/11/2011	SMGB receives "Petition/Notice of Defense" from counsel for the owners/operators requesting review of SMGB's 3/10/2011 Order Imposing Administrative Penalty.
4/27/2011	SMGB staff informed by California Department of Fish and Wildlife (CDFW) staff that surface mining operations at the Big Cut Mine site had resulted in off-site discharge of sediment to local watercourses.

**Table 14 (continued)
Chronology of Pertinent Events and Actions
Big Cut Mine Illegal Mining Operation**

Date	Events or Actions
4/28/2011	SMGB notifies counsel for the owners/operators that the 3/10/2011 Order Imposing Administrative Penalty cannot be petitioned to the SMGB, and that the owners/operators' recourse, in lieu of paying the accrued penalties and reclaiming the lands disturbed, is with the courts.
4/29/2011	Ongoing and expanded surface mining operations confirmed to be occurring at the Big Cut Mine site based on observations made by SMGB staff during a site inspection conducted with CDFW staff. SMGB staff estimates additional 2 to 5 acres are disturbed since the inspection on 1/28/2011.
5/5/2011	SMGB issues NOV to Big Cut Mine owners/operators for ongoing and expanded operation of an illegal surface mine and illegal discharges into watercourses.
6/9/2011	5/5/2011 NOV re-issued via hand delivery to Dan Tankersley, an agent/representative of the owners/operators, at SMGB regular business meeting.
9/8/2011	SMGB issues OTC to Commence Corrective Actions issued to Big Cut Mine owners/operators. OTC returned unclaimed.
12/8/2011	SMGB upholds 9/8/2011 OTC.
1/12/2012	SMGB issues Order Imposing Administrative Penalty in the amount of \$750,000.00 to Big Cut Mine owners/operators for failure to comply with the 5/5/2011 and 6/9/2011 NOV and 9/8/2011 OTC, e.g. failure to obtain required permits, failure to provide a remediation plan to correct effects of illegal mining and for failure to provide an adequate financial assurance cost estimate. Counsel for owners/operators receives order on 1/20/2012.
8/9/2012	SMGB staff sends formal request to owners/operators for permission for SMGB staff to conduct an annual compliance inspection on 8/28/2012 of the Big Cut Mine site. SMGB receives no response to this letter.
11/26/2012	SMGB counsel obtains civil warrant to inspect Big Cut Mine site from El Dorado County Superior Court.
11/28/2012	SMGB staff conducts site inspection under civil warrant and estimates and additional 33 to 36 acres are disturbed since 4/29/2011.
June 13, 2013	SMGB rescinds January 12, 2012 Order and issues an Administrative Penalty in the amount of \$11,025,000.00 to the owners/operators of the Big Cut Mine, for failure to obtain a permit to mine and to correct ongoing violations pursuant to the SMARA.
September 26, 2013	SMGB staff conducts site inspection under civil warrant and estimates and additional 7 acres are disturbed since 11/28/2012.
April 24, 2014	SMGB staff conducts site inspection under civil warrant and notes no additional acres disturbed since 9/26/2013.

On April 27, 2011, SMGB staff was informed by CDFW staff that activities at the Big Cut Mine property had resulted in off-site discharge of sediment to Weber Creek. During the site inspection with CDFW staff on April 29, 2011, SMGB staff confirmed that ongoing and expanded surface mining operations were occurring, and that such activities had resulted in off-site discharge of sediment to local watercourses.

Subsequently, on May 5, 2011, the Executive Officer issued an NOV to the owners/operators of the Big Cut Mine for the violations observed during the April 29, 2011 site inspection. The NOV was returned unclaimed, and SMGB staff re-issued the NOV via hand delivery to Mr. Dan Tankersley, an agent of the Big Cut Mine, on June 9, 2011. The NOV directed the owners/operators to immediately cease any and all mining activities, and to provide the following items to the SMGB within 30 days:

- A Remediation Plan to correct the effects of illegal mining activities on the Big Cut Mine site. Such plan should address all areas disturbed by illegal surface mining operations on the Big Cut Mine property during the past year, and shall include specific measures for restoring off-site watercourses impacted by recent sediment discharges.
- A Financial Assurance Cost Estimate that substantially complies with SMARA and Title 14, California Code of Regulations, Section 3804. Such Financial Assurance Cost Estimate must be of a sufficient amount to cover all costs associated with reclaiming areas currently disturbed by surface mining activities at the Big Cut Mine site, and shall include costs for restoring off-site watercourses impacted by recent sediment discharges.
- Copies of all permits as deemed required by each respective jurisdiction in order to bring the Big Cut Mine site into compliance with all local, state and federal requirements. If such permits are not available within the above timeframe, then copies of permit applications or other written correspondence establishing that such permits are actively being sought may be acceptable.

The owners/operators of the Big Cut Mine did not meet any of the requirements of the May 5, 2011 and June 9, 2011 NOV. Nor have they addressed, or attempted to address, the requirements of the OTC the SMGB issued on September 8, 2011 and upheld on December 8, 2011. Finally, the SMGB received no payment, in whole or in part, or any other indication from the owners/operators of the Big Cut Mine that they intend to comply with the March 10, 2011 and January 12, 2012 Orders imposing administrative penalties.

As noted above, on November 28, 2012, SMGB staff and counsel conducted a SMARA compliance inspection at the Big Cut Mine property under civil warrant. Based on observations made at that time, SMGB staff estimated that approximately 53 total acres were disturbed by surface mining operations. This total disturbed acreage reflects an increase of approximately 49 acres since SMGB staff visited the site in April of 2010, and an increase of 33 to 36 acres since SMGB visited the site in April of 2011.

Included in the 53 acres of total disturbance observed on November 28, 2012 were approximately 2.6 acres of disturbance outside of the Big Cut Mine property. These areas of encroachment were along and across the southern and southwestern boundary line of the

subject parcel on property owned by the El Dorado Irrigation District. Not included in the 53 acres of total disturbance was the area encompassed by the main site access road connecting to Big Cut Road. It is estimated that an additional 2.5 acres have been disturbed by construction of this road across property owned by the El Dorado Irrigation District.

In addition to the expanded surface area disturbance and off-site encroachment, the November 28, 2012 inspection confirmed that since April of 2011 the owners/operators of the Big Cut Mine had expanded the size of the aggregate processing plant, excavated several additional water retention ponds, imported and assembled multiple pieces of heavy mining equipment, increased the volume of stockpiled processed aggregate materials, and installed a truck scale and other mining infrastructure such as water pipelines.

At its June 13, 2013, regular business meeting, the SMGB considered and subsequently issued an administrative penalty to the owners, operators and agents of the Big Cut Mine, for failure to correct violations pursuant to SMARA. In issuing this new Order, the SMGB rescinded the previous January 12, 2012 Order and imposed an administrative penalty in the amount of \$11,025,000.00 to Joseph and Yvette Hardesty, Rick Churches, and Dan Tankersley, the owners/operators of the Big Cut Mine, located in the County of El Dorado, for failure to obtain a permit to mine and to correct ongoing violations pursuant to SMARA.

On September 26, 2013, SMGB staff and El Dorado County staff conducted a SMARA compliance inspection under civil warrant and noted an additional 7 acres disturbed due to land clearing and grading primarily in the northwestern portion of the Big Cut Mine property. Following this inspection SMGB staff estimates a total of 60 acres have been disturbed since April of 2010 at the Big Cut Mine property due to surface mining operations.

Finally, on April 24, 2014, SMGB and El Dorado County District Attorney staff conduct an additional SMARA compliance inspection under civil warrant and observed no increase in disturbed acreage.



Figure 10. Big Cut Mine located in El Dorado County as of April 24, 2014.

ROLES OF THE OFFICE OF MINE RECLAMATION (OMR)

In 1991, the Department of Conservation (Department) created the Office of Mine Reclamation (OMR) to administer the provisions of SMARA for the Department. OMR is divided into four units: the Reclamation Unit, the Reporting and Compliance Unit, the Lead Agency Review Team (LART), and the Abandoned Mine Lands Unit (AMLU). The core operations of OMR are to:

- Provide expert technical review and comment on reclamation plans and plan amendments submitted by a lead agency prior to the lead agency's approval of the plan;
- Review and comment on financial assurance estimates for reclamation plans and plan amendments;
- Assist and advise surface mine operators regarding SMARA compliance issues;
- Assist lead agencies by providing training and advice on administering and enforcing SMARA;
- Review and process annual reports and fees supporting the SMARA program;
- Recommend to the Director enforcement actions against surface mine operators who do not comply with SMARA; and
- Remediate the safety and environmental pollution hazards from historic and abandoned mines found throughout the state.

OMR's Reclamation Unit engineering geologists and botanists review reclamation plans and plan amendments submitted by lead agencies. The plans are reviewed for both compliance with the requirements of SMARA and the associated regulations as well as technical feasibility. This unit also assists individual mine operators and lead agencies with reclamation questions, and conducts on-site inspections of new surface mine sites and of existing sites when reclamation plan amendments are proposed. OMR conducts training workshops throughout the State for lead agency personnel and industry regarding the content of SMARA and the SMGB's reclamation regulations. Each year, OMR conducts several of these workshops.

The Reporting Unit is responsible for the review, processing and analysis of annual mine operation report data from mining operators, and collection of mining fees. The Unit also audits lead agencies for performance of their individual SMARA programs.

OMR's Compliance Unit is responsible for the enforcement of SMARA statutes and regulations for both lead agencies and mine operations, and completes mine inspections for the Lead Agency Review audits.

Annual Mine Reporting

PRC Section 2207 [AB 3551 (Sher, Chapter 1097, Statutes of 1990), AB 3903 (Sher, Chapter 1101, Statutes of 1990); AB 1506 (Sher, Chapter 845, Statutes of 1991); SB 649 (Kuehl, Chapter 794, Statutes of 2003); SB 1110 (Kuehl, Chapter 383, Statutes of 2005)] provides requirements for filing annual reports and reporting fees by each mine. These annual reports are filed on forms approved by the SMGB, and furnished as a courtesy by OMR. Annual reporting fees and a method for collecting those annual fees from each active surface mining operation are also imposed by the SMGB. By July 1, 1991, surface mine operators were

required to file an annual report and pay reporting fees to the Department for operations conducted during calendar year 1990.

Annual mining operation reports are required from all mines subject to SMARA from the time they are permitted until they are certified reclaimed, even if they have not begun operation or have ceased operation with no intent to resume and are performing reclamation activities. As a courtesy, OMR mails annual report notices to each reporting mining operation during May of each year, in addition to posting the notice and forms on the Department's webpage. Reports must be postmarked on or before July 1 of that year. Annual reporting forms were last revised and implemented by the SMGB in 2012.

When surface mine operators do not provide reports and fees, as required by SMARA and PRC Section 2207, the Reporting and Compliance Unit notifies the operator and the responsible lead agency of the operator's lack of compliance. A request is made of the local jurisdiction to take corrective action. If the operator fails to comply, and the lead agency takes no further action, the Reporting and Compliance Unit recommends enforcement action to the Director.

The number of mines reporting per year since 1990 is shown in Table 15. Because annual reports are filed with OMR by July 1 for the previous calendar year, the total number of reporting mines is not available for calendar year 2013 at the time this report was prepared. The figures reported below for the 2012 reports are as of the date of publication, and do not reflect all mines that will eventually report and pay fees for the year. Also, note that the numbers of mines reporting each year has changed from previous reports to reflect final tallies; previous reports reflected preliminary tallies. The general trend in mines reporting is consistent with earlier reports.

OMR's Reporting Section of the Reporting and Compliance Unit is responsible for the review and processing of annual reports and mining fees. In 2013, this unit processed 1,273 annual reports filed for calendar year 2012. Mine reporting fees of \$3,471,789 have been collected to date for the 2013-14 fiscal year. The Governor's Budget authorizes mine fees in the amount of \$4,380,503 for collection to run the Department and SMGB's SMARA programs.

SMARA Compliance Actions Fiscal Year 2013-14

Administrative actions taken by OMR's Compliance Unit during the 2013-2014 Fiscal Year, including issuance of 15-day Notices to SMARA lead agencies, and Notices of Violation (NOVs), Orders to Comply (OTCs) and/or Administrative Penalties to specific operators pursuant to PRC 2774.1, are summarized in Table 16.

Table 15
Summary of Number of Reporting Mines from
1990 through 2013

Reporting Year	Number of Mines
1990	1,255
1991	1,367
1992	1,477
1993	1,467
1994	1,473
1995	1,474
1996	1,483
1997	1,499
1998	1,501
1999	1,485
2000	1,447
2001	1,427
2002	1,416
2003	1,390
2004	1,369
2005	1,375
2006	1,359
2007	1,362
2008	1,327
2009	1,291
2010	1,267
2011	1,334
2012	1,273

Table 16
Summary of Compliance Actions Initiated by OMR since 2013

Mine Name	Type of Violations	Date 15-Day Notice Issued	Date NOV Issued	Date OTC Issued	Hearing Date/ Outcome	Date Admin Penalties Letter Sent
Bentonite	Failure to File Annual Report					02/14/2014
Bihlman Pit	Failure to File Annual Report					12/19/2013
Cole Cash	Abandoned mine	04/18/2014				
DKD DG Pit	Failure to File Annual Report					11/25/2013
El Monte Pit	Failure to File Annual Report					02/07/2014
Guillemin	Illegal mine.	09/18/2013	Lead Agency, BLM, CVRWQCB, and DFW pursuing enforcement			
Jacksonhill Ranch Quarry	Failure to File Annual Report					01/23/2014
PV Clay	Failure to File Annual Report					01/30/2014
Randsburg Placer	Failure to File Annual Report					01/23/2014
Red Ink Maid	Failure to File Annual Report					11/25/2013
Reeves Sand and Gravel	Failure to File Annual Report					12/19/2013
Shamrock Sand and Rock	Failure to File Annual Report					01/30/2014
Smith Pit Phase 2	Failure to File Annual Report					02/14/2014
Stoney Creek	Failure to File Annual Report					03/14/2014
Yosemite Slate Quarry	Failure to File Annual Report					12/06/2013

CALIFORNIA ABANDONED MINE LANDS PROGRAM

Commencing in fiscal year 1997-1998, the Abandoned Mine Lands Unit (AMLU) was created within the DOC's Office of Mine Reclamation in order to address the safety hazards, environmental pollution, and public liability risk from historic abandoned mines located on public land in California, in particular those that existed before the 1975 enactment of SMARA. AMLU also documents and remediates the hazards associated with mines abandoned after 1975 that meet abandonment criteria under SMARA. Many of the historic mines that ceased operations before state reclamation requirements were enacted in 1975, and before enactment of state or federal environmental protection regulations, present safety hazards to people and animals and may issue contaminants that pollute streams, lakes, and air. The AMLU inventories mine features to gather information about these potential hazards, the potential cultural significance of the site, and the potential wildlife habitat at each site. This information is necessary for public land-management agencies to then prioritize sites for remediation, conduct assessments to comply with the California Environmental Quality Act and National Environmental Policy Act (NEPA), and finally fund and implement mine hazard remediation projects.

In 2000, the AMLU published *California's Abandoned Mines: A Report on the Magnitude and Scope of the Issue in the State*. The report estimates that 47,000 abandoned mine sites in the state consist of an estimated 165,000 individual mine features (Figure 11). A feature is a single human-made object or disturbance associated with mining, such as a shaft or adit (vertical or horizontal opening), tailings, machinery and facilities. A mine site can be comprised of one or more features. Of these 47,000 abandoned mines, about 67 percent are located on federal land (primarily on Bureau of Land Management, National Park Service, and U.S. Forest Service property), 31 percent are on private lands, and about two percent are on State or local lands. The AMLU estimates that about 62,000 of the features include hazardous openings that could present a threat to human life. The AMLU maintains the state's abandoned mine inventory database, which currently contains records for 4,143 legacy mine sites and their associated 54,943 features. (For more information, see the AMLU website at www.consrv.ca.gov/OMR/abandoned_mine_lands.)

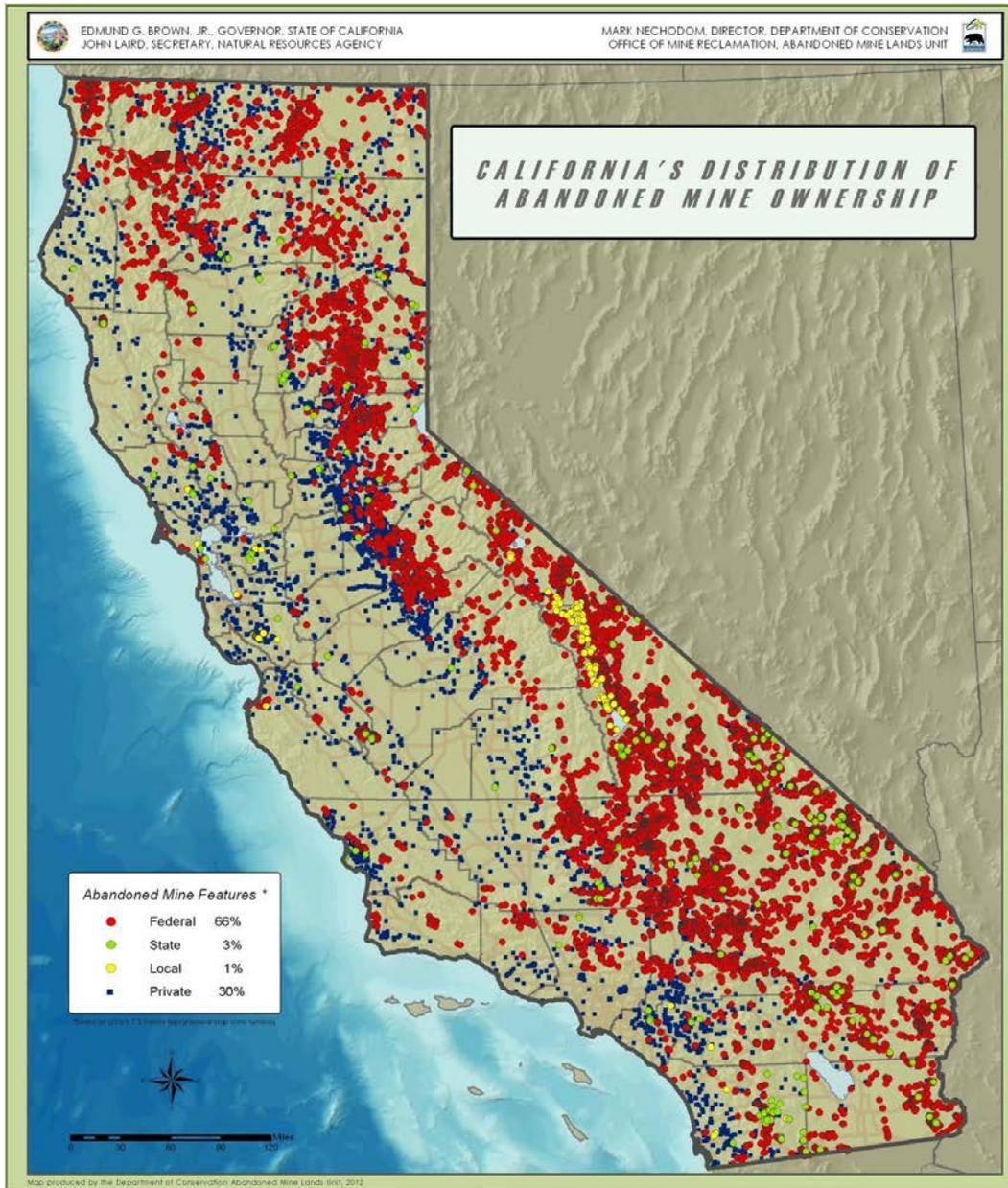


Figure 11. Location of abandoned mine features in California. Source: AMLU 2012.

Since its inception, the AMLU has increased the number of inventories and on-the-ground remediation through key partnerships with other state, federal, and local agencies (Figure 12). These partnerships leverage additional funding, in particular federal, so that the state can meet its priorities to protect public health and the environment. Since 2000, the Unit has completed 1,215 closures of mine features where physical safety hazards exist on state, federal, and county owned land. The closures target high priority mine sites identified through the inventories (typically high hazard, high public visitation areas), and consist of wire fencing; backfills; polyurethane foam (PUF) closures; bat compatible gates, cupolas, and culvert gates; fitting with concrete plugs and steel caps; and, demolition of unstable structures and trash. All work is conducted in accordance with California Environmental Quality (CEQA) or National Environmental Policy Acts (NEPA). Work is typically performed by companies under contract to the Unit. In addition, the AMLU has been involved with remediation of several site with chemical contamination over the years, partnering with both state and federal agencies. The AMLU has

focused on projects where the OMR can provide a unique contribution such as in contracting, project management, revegetation, and site contaminant sampling. Since other state and federal agencies have established authorities under environmental cleanup and protection statutes to address contaminant remediation, AMLU does not take the lead on such projects, but rather positions OMR to provide assistance where our services are a good fit in meeting the overall objectives of the agency responsible for the project.

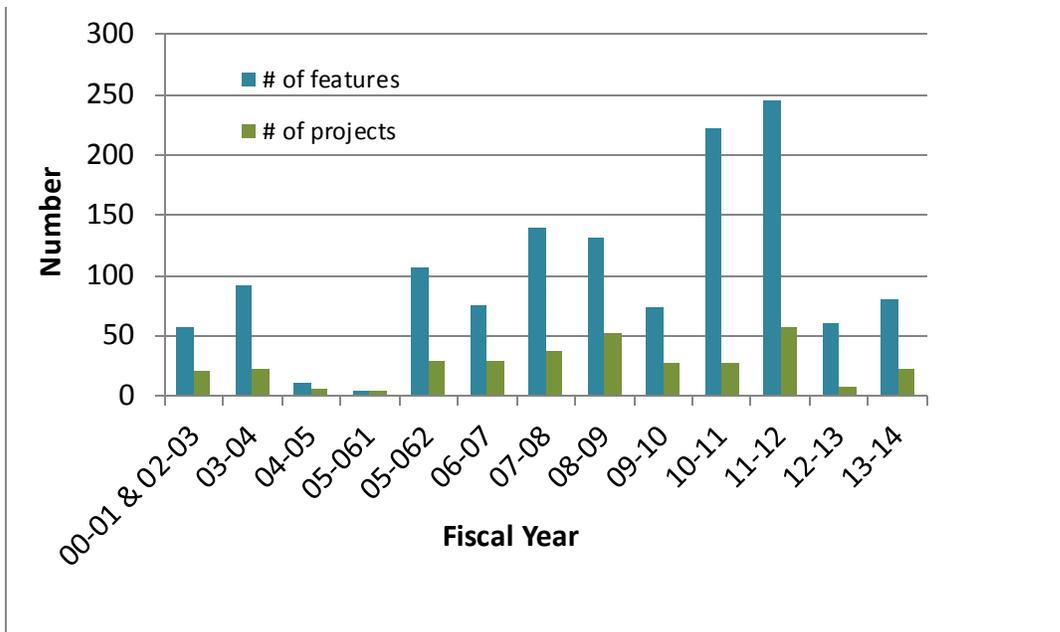


Figure 12. Number of abandoned mine closure projects and number of features in the projects Fiscal Years 2000-01 to 2013-14. Fewer closures occurred after 2011-12 while AMLU was under contract to complete National Park Service inventory.

In rapidly urbanizing regions of the state as well as in heavily used recreational areas, these old mines may pose a very significant threat to the health and safety of the human population. The low level of knowledge about the location and effects of abandoned mines on the well-being of local communities is becoming more evident in the face of new disclosure requirements for land-use planning and development. In order to address this enormous task in a logical fashion, the AMLU works with other federal and state agencies and local organizations to compile and consolidate knowledge about abandoned mine sites, and prioritize inventory and remediation activities based on areas having the highest potential threat to public health and safety, and to the environment. The AMLU uses a combination of sophisticated survey technologies (geographical information systems, global positioning systems, etc.), literature research, and field work. The Department's California Geological Survey Library provides a wealth of historical information. Local knowledge is also a valuable resource for historic abandoned mine information. AMLU also offers a toll-free telephone number (1-877-OLD-MINE) for Californians to easily contribute to the inventory.

For years, both local jurisdictions and state agencies have had permitting or regulatory authority over abandoned mines if those mines adversely affect water quality (Regional Water Quality Control Board) or if they contained hazardous wastes that could escape into the surrounding environment (Department of Toxic Substances Control). While DOC does not own or manage lands, it has taken a lead role in coordinating information regarding the character and type of abandoned mines in California, providing funding, staff, and technical expertise to inventory and remediate unsafe or polluting mines. For example, AMLU continues to provide critical technical

guidance and project planning assistance to several State land-owning agencies to prioritize and coordinate abandoned mine remediation efforts on State-owned lands with the goal of protecting people from mine hazards and reducing the risk of substantial financial liability to the agencies.

AMLU is part of a state and national network of what are known as “abandoned mine lands” programs. The AMLU leads the California Abandoned Mine Lands Agency Group (CAMLAG), a state-level interagency coordination forum that includes federal, state, and local agencies, and non-profit organization representatives. Several state and federal programs participating in CAMLAG exist to identify and remediate the hazards from legacy mines in California. Funding to remediate mine sites is limited and therefore requires choosing amongst sites according to risk and endangerment. CAMLAG, under AMLU’s leadership, is actively developing analytical and data management tools that will allow programs to prioritize where to apply fund sources to 1) inventory and screen sites, 2) conduct risk assessments, and 3) remediate sites. CAMLAG has a charter defining its purpose and role in addressing legacy mines in the state, which states that CAMLAG:

1. Takes a leadership role in identifying, prioritizing, and planning ways to address high priority areas identified by the group. This includes identifying opportunities to collaborate and/or forming partnerships in order to eliminate problems caused by abandoned mines.
2. Supports a more efficient and effective implementation of programs and tools used to address California’s abandoned mine land problems.
3. Develop criteria for selecting and addressing abandoned mine sites for remediation.

Because the majority of abandoned mines in California are located on federal land, the AMLU partners with federal land management agencies to inventory and close AML sites on their lands. In Fall 2013 AMLU completed its largest project yet, an inventory and remediation of abandoned mines on National Park Service (NPS) and Bureau of Land Management (BLM) lands in California. With funding from the American Recovery and Reinvestment Act (ARRA) of 2009, the NPS provided a contract in 2009 for a \$2.1 million, 3-year inventory of abandoned mines on NPS lands (Figures 13 and 14), and in 2010 the BLM provided a \$1.5 million contract for inventory and remediation of physical hazards in popular Off-highway Vehicle Recreation Areas. The approval in 2010 of BLM ARRA funding was based on the efficiency and cost effectiveness of using the AMLU’s existing contracts for mine closure services. In fact, the BLM’s contract called for closure of 150 hazardous mine features. Despite a short time frame to complete NEPA studies and tight wildlife restrictions on construction dates, the AMLU completed far more closures than originally budgeted, closing 323 features and inventorying an additional 387 features by the contract’s close in Fall 2012. Mine feature closures took place on lands managed by the Ridgecrest, Mother Lode, Barstow, El Centro, and Palm Springs Field Offices and included some of the most dangerous mine openings, heavily visited sites, and best bat habitat that the AMLU has inventoried.



Figure 13. AMLU staff inventorying legacy mine shafts in designated wilderness, north side of Confidence Wash, Death Valley NP. 2012. Photo: AMLU.



Figure 14. AMLU staff inventorying a head frame with ore bin and intact sheave wheel at the legacy Saratoga mine site in southern Death Valley. 2012. Photo: AMLU.

The AMLU has also successfully used outreach to promote its remediation activities and its "Stay Out - Stay Alive!" message, which is part of a national public awareness campaign to

warn children and adults about the dangers of exploring and playing near abandoned mines. AMLU staff organize and run a booth as part of State Scientist Day, an annual event held at the State Capitol. The booth allows school children could hear about the hazards of abandoned mines as well as learn the significance of modern mining.

The AMLU assisted the Bureau of Land Management (BLM) is closing a particularly hazardous mine overseen by the Barstow Field Office in 2013. A member of the public reported to AMLU that they nearly drove their car into a large vertical shaft at the Monarch Rand Mine because the access road leads over a hill which conceals the shaft from view. The AMLU paid a contractor to close the shaft with a large cupola that also stabilized the collar. Several other openings were closed at this site and an adjacent one, including a horizontal opening that previously contained an illegal methamphetamine lab (Figure 15).



Figure 15. AMLU staff inspecting a large cupola installed over a vertical shaft adjacent to the access road at the Monarch Rand Mine, on BLM Land in San Bernardino County. Contractor and funding supplied by AMLU. 2013. Photo: AMLU.

The AMLU also helped the BLM Needles Field Office close several openings at the Mountaineer Mine near the Colorado River. These horizontal and vertical openings connected to each other and were regularly entered by the public; they also provide habitat for maternity colonies of five different species of bats, making this some of the most important bat habitat AMLU has ever protected. AMLU paid a contractor to install a very large cupola and bat gates at this site in late 2012 (Figure 16).



Figure 16. Very large cupola over a vertical shaft, along with bat gate and air grate installed at the Mountaineer Mine on BLM land in Riverside County using AMLU funds and contractor. 2012. Photo: Frontier Environmental Solutions.

Since 2006, the AMLU's primary funding sources to remediate hazards at abandoned mines come from federal funding and a statutorily authorized fee collected on gold and silver mined in California (\$5 per ounce for gold and \$0.10 per ounce for silver (Kuehl, Chapter 794, Statutes of 2003); PRC Section 2207(d)(4)(B)). Through the end of 2013, the AMLU, in partnership with more than two dozen local, State and federal partners, completed over 1,215 remediation activities directed toward legacy mine features using a combination of federal and state funds, including funds received from annual allocations of gold and silver fees. The AMLU maintains data related to the remediation of these features including the location, type and cost of each closure hazardous abandoned mine features. Over the last five fiscal years, the state has provided the Unit \$7 million dollars, the BLM over \$3 million, the NPS over \$2 million, and the USFS over \$340,000, which the Unit has used for inventory and remediation activities. All told, the funding partnerships have acted synergistically to attract federal contracts, build state capacity, and increase the number of remediation activities being performed across all public-land ownerships for the benefit of the public and the state.

OTHER SMGB CONSIDERATIONS AND ACTIONS

On occasion, the SMGB requests from staff comprehensive or focused analysis on topics of interest to the SMGB, prior to considering policy decisions and the need for regulations or legislative action. These reports commonly take the form of an Information Report. These reports do not set forth policy, but rather present information that the SMGB reviews in considering policy. A summary of such reports is presented in Table 17.

Table 17 Summary of Published Information Reports			
Information Report No.	Description	Date	Authors
SMGB IR 2007-01	Report on SMARA Lead Agency Performance Regarding Mine Reclamation	6/2007	Stephen M. Testa and David J. Beeby
SMGB IR 2007-02	Report on Backfilling of Open-Pit Metallic Mines in California	1/2007	Stephen M. Testa and James S. Pompy
SMGB IR 2007-03	A Review of the State's Mineral Resources Management Program and its Components – Status and Effectiveness of Review Efforts	11/2007	Stephen M. Testa and David J. Beeby
SMGB IR 2007-04	A Comparison of Regulatory Surface Mining Programs in the Western United States	9/2007	David J. Beeby
SMGB IR 2007-05	A Report on the Mineral Land Classification and Designation Program under the California Surface Mining and Reclamation Act of 1975	7/2008	Stephen M. Testa and David J. Beeby
SMGB IR 2009-06	A Survey of Lead Agencies Affected by the Alquist-Priolo Earthquake Fault Zoning Act	6/2009	Stephen M. Testa, William Bryant and Jerry Treiman
SMGB IR 2010-07	A Review of Issues Pertaining to Idle Mines under the Surface Mining and Reclamation Act of 1975	1/2011	Stephen M. Testa
SMGB IR 2012-08	Report on Survey of Lead Agencies Affected by the Surface Mining and Reclamation Act	3/2012	Stephen M. Testa
SMGB IR 2012-09	A Survey of California Surface Mining Operations: Satisfaction with Annual Mining Operation Reporting Fees	6/2012	Stephen M. Testa
SMGB IR 2013-10	Roles of the Engineering Geologist under the Surface Mining and Reclamation Act (SMARA)	6/2013	Will J. Arcand and Stephen M. Testa

OBSERVATIONS AND RECOMMENDATIONS

The SMGB reports to the legislature and on an annual basis offers observations and recommendations for consideration in regards to the Alquist-Priolo Earthquake Fault Zoning Act (A-P EFZ Act), Seismic Hazards Mapping Act (SHMA) and Surface Mining and Reclamation Act (SMARA). The SMGB's observations and recommendations are as follows:

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT (A-P EFZ Act)

Pursuant to PRC Section 2621.5, the purpose of the A-P EFZ Act, in part, is “to provide policies and criteria to assist cities, counties, and state agencies in the exercise of their responsibility to prohibit the location of developments and structures for human occupancy across the trace of active faults.” The A-P EFZ Act became effective on March 7, 1973. Since that time it has been amended 11 times by the Legislature. The SMGB finds that implementing the requirements of this Act continues to protect the health and safety of the public from losses that would be incurred by the construction of structures for human habitation across the surface traces of known active faults. A technical Advisory Committee was established to address certain aspects of the Act. Its work has essentially been completed and a report is in preparation.

Observation No. 1: The SMGB previously recommended that a steady funding source be developed to support this Act. The SMGB is pleased to note the Strong-Motion Instrumentation and Seismic Hazards Mapping Fund (SMISHM) now reflects a 30% increase in permitting fees on new construction that CGS's collects, with a commitment of approximately \$1.4 million the first year, and \$1.3 million in succeeding years, to cover A-P EFZ program costs. If the new construction market increases, then the fee revenue increase is expected to cover the A-P EFZ costs and also cover the budget for the Seismic Hazards Mapping program. If the construction market decreases, then the 30% fee increase likely will only cover the A-P EFZ expenditures, and other SMISHM programs will incur funding cuts.

Observation No. 2 – Structural Mitigation: CCR Section 3603(a) states “No structure for human occupancy, identified as a project under Section 2621.6 of the Act, shall be permitted to be placed across the trace of an active fault.” The SMGB Information Report 2009-06 titled “A Survey of Lead Agencies Affected by the Alquist-Priolo Earthquake Fault Zoning Act” presented the results of a ten-question questionnaire which was forwarded to all 140 lead agencies. One of the questions inquired as to whether a lead agency allows for structural mitigation for some faults, and if so, what are they?

Sixty-eight percent (68%) of responding Counties require structural setbacks from active faults, with 44% of responding Cities requiring some form of structural setback. Most lead agencies require a setback, typically 50-feet, although certain lead agencies, such as Humboldt County and the City of Chino Hills have required greater setbacks. Several lead agencies, such as the Counties of Marin, Mendocino, Monrovia and Riverside, and the Cities of Loma Linda and San Jacinto, rely on recommendations from their consultant, engineer or geotechnical engineer, or County Geologist. Others such as San Bernardino County will consider lesser setbacks for well-defined pre-Holocene age faults.

Twenty-eight percent (28%) of responding Counties and Cities allow structural mitigation for active faults. Certain lead agencies allow for limited structural mitigation. Certain lead agencies, such as the Counties of Marin and Mendocino, and the Cities of San Jacinto, Loma Linda, Monrovia, and Pacifica, allow for some structural mitigation based on recommendations from a consultant, engineer or geotechnical engineer, or County Geologist. San Bernardino County encourages structural mitigation for secondary failures such as seismically-induced tensional ground fissures. Alameda County allows for structural mitigation for minor alterations or additions to existing buildings. Affirmative responses from local lead agencies need further clarification. For example, Camarillo encourages structural mitigation, but stated that structural mitigation across faults is not allowed in AP zones, only across minor faults outside of the AP Zones. Although Riverside County provided a positive response, they clarified that structural mitigation within an A-P EFZ is only allowed for pre-Holocene faults. It is possible that most lead agencies do not allow structural mitigation within AP Zones. Therefore, the percentage of local lead agencies that responded yes may change with further discussion.

Observation No. 3 – Mandatory Filing of Geologic Reports: CCR Section 3603(f) states “*One (1) copy of all such geologic reports shall be filed with the State Geologist by the lead agency within thirty (30) days following the reports acceptance. The State Geologist shall place such reports on open file.*” Sixty percent (60%) of Counties and 52% of Cities file copies of the geologic report with CGS within 30 days after the reports are reviewed and approved. However, the SMGB currently has no authority for follow-up or to assure compliance.

Recommendation No. 1: PRC Section 2662(c) states “*The State Geologist shall continually review new geologic and seismic data and shall revise the earthquake fault zones or delineate additional earthquake fault zones when warranted by new information. The State Geologist shall submit all revised maps and additional maps to all affected cities, counties, and state agencies for their review and comment. Concerned jurisdictions and agencies shall submit all comments to the State Mining and Geology Board for review and consideration within 90 days. Within 90 days of that review, the State Geologist shall provide copies of the revised and additional official maps to concerned state agencies and to each city or county having jurisdiction over lands lying within the earthquake fault zone.*” New and revised maps are typically released for review along with a Fault Evaluation Report (FER) which provides information, data and references relied upon, in part, in preparation of the maps. This section could be amended to include a mandatory FER to accompany new and revised maps when released for public comment.

SEISMIC HAZARDS MAPPING ACT (SMHA)

Pursuant to PRC Section 2692(a), the purpose of the SHMA “*to provide for a statewide seismic hazard mapping and technical advisory program to assist cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure and other seismic hazards caused by earthquakes.*” The SHMA became effective on April 1, 1991. The SMGB finds that the implementation of this Act enhances public health and safety and serves to protect the public

from losses incurred by the effects of strong ground shaking, liquefaction or other ground failure, landslides, and other seismic hazards caused by earthquakes.

Recommendation No. 1: PRC Section 2695(a) states “The maps shall be compiled in accordance with a time schedule developed by the director and based upon the provisions of Section 2695 and the level of funding available to implement this chapter. (b) The State Geologist shall, upon completion, submit seismic hazard maps compiled pursuant to subdivision (a) to the board and all affected cities, counties, and state agencies for review and comment. Concerned jurisdictions and agencies shall submit all comments to the board for review and consideration within 90 days. Within 90 days of board review, the State Geologist shall revise the maps, as appropriate, and shall provide copies of the official maps to each state agency, city, or county, including the county recorder, having jurisdiction over lands containing an area of seismic hazard. The county recorder shall record all information transmitted as part of the public record.” New and revised maps are typically released for review along with a Seismic Hazard Zone Report (SHZR) which provides information, data and references relied upon, in part, in preparation of the maps. This section could be amended to include a mandatory Seismic Hazard Zone Report to accompany new and revised maps when released for public comment.

SURFACE MINING AND RECLAMATION ACT

The Surface Mining and Reclamation Act (SMARA) has been amended 30 times since its enactment in 1975. The statute is unique in two respects:

- (1) Mining is regulated locally by cities and counties as allowed with an adopted SMARA ordinance approved by SMGB, which are referred to as lead agencies, and
- (2) A process is provided for the conservation of mineral resources and reclamation of mined lands to minimize adverse effects on the environment and to protect public health and safety.

Based on observations of the current statewide implementation of this law, it is apparent that the opportunity for further improvement is needed. The SMGB has found that the overall SMARA program can be streamlined while meeting the intent of the law. Current duplicative efforts by the State and local lead agencies can be minimized or eliminated, and various unintended and adverse consequences of the current statutory and regulatory language can be alleviated.

The SMGB has continued its comprehensive review of SMARA and its effectiveness, and offers the following observations and recommendations for improvement.

Recommendation No. 1 - Calculation of Annual Mine Fees: The SMGB is currently considering the overall equity of the current reporting fee schedule. PRC Section 2207(d)(2)(A) requires fees to be calculated on an equitable basis reflecting the size and type of the operation, the total assessed value of the mining operation, the acreage disturbed by mining activities, and the acreage subject to the approved reclamation plan. PRC Section 2207(d) states the annual fee imposed shall not be less than \$100 or more than \$4,000 for each surface mining operation. Statute also requires that these amounts be adjusted annually for cost of living, as measured by the California Consumer Price Index. PRC Section 2207(d)(3) states that the total revenue generated by the reporting

fees may not exceed, and may be less than, the amount of three million five hundred thousand dollars (\$3,500,000), as adjusted for the cost of living. Changing the basis on which Annual Mine Fees are calculated would require a regulatory change. In considering a change to the SMGB's regulations, raising the single surface mining operation cap, without changing the way or basis in which the fees are calculated, has been considered. Although some short-time relief could be gained, over time this approach simply delays the inevitable when fees again would become inequitable. Increasing the cap for total revenues generated, which requires a legislative change, also has merit in addition to changing the entire premise on how annual fees are calculated.

The SMGB recommends that Legislative language be considered that increases the total revenues generated by the annual mine fees, and/or how such fees are calculated, for the purpose of providing equitable fees for small, medium and large surface mining operations, and an adequately funded and effective SMARA program.

Recommendation No. 2 - SMARA Lead Agency Determination of Reclamation Plan Adequacy: Under SMARA, PRC Section 2774(c) requires that a lead agency submit to the Director of the Department of Conservation (DOC) for use in reviewing the reclamation plan or plan amendments 1) information from any related document prepared, adopted, or certified pursuant to Division 13 (commencing with Section 21000), and any other pertinent information, and 2) a certification that the reclamation plan is in compliance with the applicable requirements of Article 1 of the SMGB's regulations, commencing with California Code of Regulations (CCR) Section 3500. Specifically, the issue is that staff of the local agency cannot make a conclusory determination that a reclamation plan is complete and in compliance with SMARA. Only the decision-makers can make such a conclusory determination.

The SMGB recommends that Legislative language be considered that interprets this requirement to mean that the Planning Director of an agency makes a preliminary determination subject to later consideration by the decision-makers in a public hearing. This issue is deemed non-controversial.

Recommendation No. 3 - Mineral Resource Management Policies: Under current SMARA statutes, a city or county, upon receipt of a mineral land Classification report prepared by the State Geologist or mineral land designation report prepared by the SMGB, must prepare Mineral Resource Management Policies (MRMP) and incorporate them into its General Plan. The MRMP must be submitted to the SMGB for review and comment prior to adoption by the city or county [ref. PRC Section 2762].

Although the SMGB has developed regulations describing the content and requirements of the MRMP in accordance with a statutory mandate, the SMGB has no authority to enforce inclusion of the Act's requirements into the MRMP adopted by a city or county. Cities and counties are not required to accept and incorporate the SMGB's review comments. Therefore, a MRMP may be locally adopted that does not meet the Act's minimum requirements.

The SMGB recommends that prior to a city's or county's adopted MRMP becoming effective, it must be recognized by the SMGB as being in accordance

with the Act and the SMGB's regulations. This is similar to the current requirement that the lead agency's SMARA (mining) ordinance must be certified by the SMGB as being in accordance with SMARA prior to the ordinance taking effect.

Recommendation No. 4 - Role of SMGB in Local Land Use Decisions on Mineral Lands Designated by the SMGB: Under current SMARA statutes, it is required that, prior to permitting a use that would threaten the potential to extract minerals in an area designated by the SMGB as having mineral resources of regional or statewide significance, the city or county shall prepare a statement specifying its reasons for permitting the proposed use. The city or county must consider its MRMP, must balance the designated mineral values against alternative land uses, and consider the importance of these minerals to their market region as a whole and not just their importance to the city's or county's area of jurisdiction (PRC Section 2763).

The adoption of a "statement of reasons" requires that local land use agencies consider the mineral resource consequences of a land use decision but does nothing to prevent or discourage the permitting of land uses that extinguish access to designated important mineral resources. This process, in fact, puts a city or county in the position of choosing whether to make a decision in its own interest or in the interest of other surrounding jurisdictions in the region. The elected officials who prepare the statement of reasons and who make the land use decision owe no allegiance to other jurisdictions. Thus, there is no effective mechanism in SMARA to encourage or facilitate the local permitting of mining facilities on State-designated mineral lands. This is one of the reasons why the supply of permitted mineral reserves (such as aggregates) is in critical short supply in California.

Designation by the SMGB of a mineral resource as having regional or statewide significance is based on extensive geological analysis and demand evaluations by the CGS and the SMGB. SMARA statutes should be amended to facilitate the permitting of mining facilities on designated lands. This could be accomplished, for example, through the adoption of State-mandated uniform "findings of approval" for a local agency to use when considering a requested use permit application for a mining facility on State-designated lands. These findings could be designed specifically for the issues associated with mining facilities and avoid "neighborhood compatibility" requirements that fuel litigation. As the State has done for affordable housing (GC 65589.5), the discretion of local agencies to deny a mining project on designated lands could be limited to instances where a direct impact on public health and safety can be substantiated.

Recommendation No. 5 - Aggregate Availability, Sustainability and Transportation Mapping Program: In California, land-use planners and decision makers are faced with balancing a wide variety of needs. Increasingly, as existing permitted aggregate supplies are depleted, local land-use decisions regarding aggregate resources can have regional impacts that go beyond local jurisdictional boundaries. Primary factors include universal need, increasing demand, the economic and environmental costs of transportation, and multiple land-use pressures. These factors make information about the availability and demand for aggregates, valuable to land-use planners and decision makers charged with planning for a sustainable future for California's citizens.

The resultant conceptual Aggregate Transport and Sustainability Maps being developed by CGS and the SMGB aim to address these factors and needs. These conceptual maps will illustrate some possible types of information and graphical presentations that might be used in a series (7-10) of regional aggregate resource sustainability maps covering the state. Each such map would incorporate multiple smaller Production-Consumption (P-C) Regions based on previous mineral land classification studies.

Combining multiple P-C Regions into “Super Regions” should allow better estimates of future regional aggregate demand and a better analysis of production and consumption patterns within the “Super Region”. The maps show, in a simplified manor, the distance from current aggregate sources (or potential source areas) to points of consumption and can be used to illustrate the relationship between distance and aggregate costs (both economic and environmental). In addition to the added dollar cost of aggregate to the consumer, transportation of aggregate over longer distances results in increased fuel consumption, air pollution, greenhouse gas emissions, traffic congestion, and road maintenance. Also shown will be the relationship between the projected 50-year aggregate demand, reserves (permitted resources), and resources for each P-C Region (within the larger super region) to emphasize the region’s future aggregate needs, current supplies, and potential future sources; and the estimated annual CO₂ emissions from aggregate transport in each P-C Region related to haul distance. Presenting relevant information on an appropriate regional basis will highlight the potential impacts (economic, environmental, and societal) that land use decisions related to aggregate mining in one jurisdiction may have on neighboring jurisdictions and the larger region, and provide a tool to allow local jurisdictions to understand the regional and statewide nature of aggregate supply.

The SMGB recommends that a funding source be developed to assure this statewide mapping program be further developed and subsequently completed.

Observation No. 1 - Preclude Lead Agencies from Limiting Mine-Related Transport on a State Highway: An environmental impact associated with proposed mining facilities is the truck traffic required to transport the mined material to its market. Limitations on truck traffic (e.g. average daily or peak hour trips) are commonly imposed as a CEQA mitigation measure or as a condition of approval necessary to make use permit findings. Such a limitation can be the result of local citizen opposition and not related to any public health or safety concern. Local agencies imposing limitations on the use of State highways is particularly problematic for mining facilities. As the State highway system is intended to facilitate the transport of goods as part of the State economy, conditions of a local permit that limit the use of a State highway for an otherwise lawful commercial purpose appears inappropriate. SMARA statutes could be amended to preclude a local agency from limiting mine-related transport truck traffic on a State Highway unless a specific public health and safety hazard is substantiated or validated by the California Highway Patrol.

Other CGS Programs

The SMGB represents the State's interest in the development of geological information necessary to the understanding and utilization of the State's terrain, and seismological and geological information pertaining to earthquake and other geological hazards (PRC Section 672). The CGS conducts the scientific investigations of mineral resources, seismology, and geologic hazards. As part of this work, CGS reviews the geological aspects of Timber Harvest Plans for the Department of Forestry and Fire Protection under the Forest and Watershed Geology Program, operates the largest strong motion earthquake monitoring program network in the United States under the Earthquake Engineering Program, and performs school site and hospital site geological hazard reviews for the Division of the State Architect and the Office of Statewide Health Planning and Development, respectively, under the Seismic Hazards Assessment Program.

Recommendation No. 1 – Forest and Watershed Geology Program:

CGS's Forest and Watershed Geology Program provides expertise in geologic-related watershed processes with a focus on landslides and erosion. The majority of this work is conducted for other state departments and local agencies where CGS serves as a geologic resource. Staff review Timber Harvest Plans throughout the State and provide input to the lead agency, Department of Forestry and Fire Protection, regarding potential for slope instability and soil erosion as a result of proposed timber management operations. The review of Timber Harvest Plans is partially funded through an interagency agreement with the Department of Forestry.

CGS staff also provides geologic products and services to a number of State departments and local agencies. The CGS effort is funded by these agencies through interagency agreements. Some of the projects that staff is currently working on include:

- Assessment of geologic hazards on alluvial fans and input to a planning manual as part of the Department of Water Resources' initiative to reduce hazards from flooding on alluvial fans in southern California;
- Developing statewide standards and best practices to reduce potential soil erosion as a result of Off Highway Vehicle use for the Off Highway Motor Vehicle Division of the Department of Parks and Recreation; and
- Conducting pilot studies and developing statewide standards for reducing road and trail erosion on State park land for California State Parks.

The SMGB recommends that a steady funding source be devised to assure the continuation of the multiple projects under the Forest and Watershed Program.

Recommendation No. 2 – Earthquake Engineering Program: The projects that are funded under the Strong Motion Instrumentation Program (SMIP) from building permit fees are significantly impacted by the reductions in permits issued for new construction throughout the

State. This adversely impacts the baseline activities of the program, including the reduction in instrumentation of buildings and ground sites. Other projects in the Earthquake Engineering program are moving forward. The maintenance and data recovery from previously installed ground stations continues. Work supported by Caltrans continues, and the instrumentation of several structures is being completed or is underway, such as the Bay Bridge and Devils Slide tunnel. Additionally, the BART tube under San Francisco Bay is receiving instrumentation. Instrumentation work focused on hospitals continues with the support of Office of Statewide Health Planning and Development (OSHPD), and two hospitals have been instrumented in the last year.

Recommendation No. 3 – Post-Fire Emergency Geologic Evaluation Services: CGS provides post-fire emergency geologic mapping services in wild-land burned areas to assist in mitigation planning, and in the assessment of areas prone to hazardous debris flows and landslides. Budget cuts to CGS have caused this service to be terminated.

The SMGB recommends that a steady funding source be developed to assure the continuance of this vital service.

APPENDIX A

Public Resources Code Sections 660-678

**PUBLIC RESOURCES CODE
SECTIONS 660-678**

660. There is in the department a State Mining and Geology Board consisting of nine members appointed by the Governor, subject to confirmation by the Senate.

661. As used in this article, "board" means the State Mining and Geology Board and "division" means the California Geological Survey of the department.

662. (a) One member of the board shall be a professional geologist with background and experience in mining geology; one member shall be a mining engineer with background and experience in mining minerals in California; one member shall have background and experience in groundwater hydrology, water quality, and rock chemistry; one member shall be a representative of local government with background and experience in urban planning; one member shall have background and experience in the field of environmental protection or the study of ecosystems; one member shall be a professional geologist, registered geophysicist, registered civil engineer, or registered structural engineer with background and experience in seismology; one member shall be a landscape architect with background and experience in soil conservation or revegetation of disturbed soils; one member shall have background and experience in mineral resource conservation, development, and utilization; and one member shall not be required to have specialized experience.

(b) All members of the board shall represent the general public interest, but not more than one-third of the members at any one time may be currently employed by, or receive more than 25 percent of their annual income, not to exceed \$25,000 a year per member, from an entity that owns or operates a mine in California. The representative of local government shall not be considered an employee of an entity that owns or operates a mine if the lead agency employing the representative owns or operates a mine. For purposes of this section, retirement or other benefits paid by a mining entity to an individual who is no longer employed by that entity are not considered to be compensation, if those benefits were earned prior to the date the individual terminated his or her employment with the entity.

(c) If a member of the board determines that he or she has a conflict of interest on a particular matter before the board pursuant to subdivision (b) or Section 663, he or she shall provide the clerk of the board with a brief written explanation of the basis for the conflict of interest, which shall become a part of the public record of the board. The written explanation shall be delivered prior to the time the matter to which it pertains is voted on by the board.

This disclosure requirement is in addition to any other conflict-of-interest disclosure requirement imposed by law.

663. (a) No member of the board shall participate in any action of the board or attempt to influence any decision of the board that involves himself or herself, or any person with whom he or she is connected, as a director, officer, paid consultant, or full-time or part-time employee, or in which he or she has a financial interest within the meaning of Section 87103 of the Government Code.

(b) No board member shall participate in any proceeding before any state or local agency as a consultant or in any other capacity on behalf of any person who engages in surface mining operations.

(c) Upon request of any person, or on his or her own initiative, the Attorney General may file a complaint in the superior court for the county in which the board has its principal office alleging that a board member has knowingly violated this section, alleging the facts upon which the

allegation is based, and asking that the member be removed from office. Further proceedings shall be in accordance as nearly as practicable with rules governing civil actions. If after trial the court finds that the board member has knowingly violated this section it shall order the member removed from office.

663.1. (a) For the purposes of this section, "ex parte communication" means any oral or written communication between a member of the board and an interested person about a matter within the board's jurisdiction that does not occur in a public hearing, workshop, or other official proceeding, or on the official record of the proceeding on the matter.

(b) For purposes of this section, "a matter within the board's jurisdiction" means any action on a reclamation plan or financial assurance appealed pursuant to subdivision (e) of Section 2770, any review of an order setting administrative penalties pursuant to Section 2774.2, or any review of an appeal pursuant to Section 2775.

(c) A board member or any person, other than a staff member of the board, department, or any other state agency, who is acting in his or her official capacity and who intends to influence the decision of the board on a matter within the board's jurisdiction, shall not conduct an ex parte communication, unless the board member or the person who engages in the communication with the board member discloses that communication in one of the following ways:

(1) The board member or the person fully discloses the communication and makes public the ex parte communication by providing a full report of the communication to the executive officer or, if the communication occurs within seven days of the next board hearing, to the board on the record of the proceeding of that hearing.

(2) When two or more board members receive substantially the same written communication or receive the same oral communication from the same party on the same matter, one of the board members fully discloses the communication on behalf of the other board member or members who received the communication and requests in writing that it be placed in the board's official record of the proceeding.

(d) (1) The board shall adopt standard disclosure forms for reporting ex parte communications which shall include, but not be limited to, all of the following information:

(A) The date, time, and location of the communication.

(B) The identity of the person or persons initiating and the person or persons receiving the communication.

(C) A complete description of the content of the communication, including the complete text of any written material that was part of the communication.

(2) The executive officer shall place in the public record any report of an ex parte communication.

(e) Communications shall cease to be ex parte communications when fully disclosed and placed in the board's official record.

(f) In addition to any other applicable penalty, a board member who knowingly violates this section is subject to a civil fine, not to exceed seven thousand five hundred dollars (\$7,500). Notwithstanding any law to the contrary, the court may award attorneys' fees and costs to the prevailing party.

(g) Notwithstanding Section 11425.10 of the Government Code, the ex parte communications provisions of the Administrative Procedure Act (Article 7 (commencing with Section 11430.10) of Chapter 4.5 of Part 1 of Division 3 of Title 2 of the Government Code) do not apply to proceedings of the board under this code.

663.2. (a) No board member shall make, participate in making, or in any other way attempt to use his or her official position to influence a board decision about which the member has knowingly had an ex parte communication that has not been reported pursuant to Section

663.1.

(b) In addition to any other applicable penalty, including a civil fine imposed pursuant to subdivision (f) of Section 663.1, a board member who knowingly violates this section shall be subject to a civil fine, not to exceed seven thousand five hundred dollars (\$7,500). Notwithstanding any law to the contrary, the court may award attorneys' fees and costs to the prevailing party.

664. Each member of the board shall hold office for four years. Vacancies shall be immediately filled by the Governor.

667. Each member of the board shall receive one hundred dollars (\$100) for each day during which the member is engaged in the performance of official duties. The compensation of each member, except the compensation of the chairman, shall not, however, exceed in any one fiscal year the sum of four thousand dollars (\$4,000). The chairman of the board may receive compensation of not to exceed five thousand dollars (\$5,000) in any one fiscal year for the performance of official duties. In addition to such compensation, each member shall be reimbursed for necessary traveling and other expenses incurred in the performance of official duties.

668. The board shall maintain its headquarters in Sacramento and shall hold meetings at such times and at such places as shall be determined by it. Five members of the board shall constitute a quorum for the purpose of transacting any business of the board. A majority affirmative vote of the total authorized membership of the board shall be necessary to adopt, amend, or repeal state policy for the reclamation of mined lands adopted pursuant to Article 4 (commencing with Section 2755) of Chapter 9 of Division 2. All meetings of the board shall be open to the public.

669. The Governor shall designate the chairman of the board from among the members of the board. The person designated as the chairman shall hold such office at the pleasure of the Governor. The board shall annually elect a vice chairman from among its members.

670. The board may appoint an executive officer who shall be exempt from civil service pursuant to subdivision (e) of Section 4 of Article XXIV of the California Constitution. The board may also employ such clerical assistance as may be necessary for the proper discharge of its duties. Neither the board nor its employees shall have or be given any powers in relation to the administration of the division.

671. The director shall have no power to amend or repeal any order, ruling, or directive of the board.

672. The board shall represent the state's interest in the development, utilization, and conservation of the mineral resources of the state and the reclamation of mined lands, as provided by law, and federal matters pertaining to mining, and shall determine, establish, and maintain an adequate surface mining and reclamation policy. The board shall also represent the state's interest in the development of geological information necessary to the understanding and utilization of the state's terrain, and seismological and geological information pertaining to earthquake and other geological hazards. General policies for the division shall be determined by the board.

673. The board shall also serve as a policy and appeals board for the purposes of Chapter 7.5 (commencing with Section 2621) of Division 2.

675. The board may provide for a statewide program of research regarding the technical phases of reclaiming mined lands which may be delegated to it by law and may accept funds from the United States or from any person to aid in carrying out the provisions of this section. The board may conduct such a program independently or by contract or in cooperation with any person, public or private organization, federal agency, or state agency, including any political subdivision of the state.

676. The board shall provide for a public information program on matters involving the state's terrain, mineral resources, mining, the reclamation of mined lands, and the seismological and geological aspects of earthquakes and other geological hazards.

677. The board shall nominate, and the director shall appoint, the State Geologist, who shall either be registered in compliance with the Geologist and Geophysicist Act at least one year from the date of appointment, or the Board of Geologists and Geophysicists may, upon the review of academic and professional experience, grant registration. The State Geologist shall possess general knowledge of mineral resources, structural geology, seismology, engineering geology, and related disciplines in science and engineering, and the reclamation of mined lands and waters. The State Geologist shall advise the director regarding technical, scientific, and engineering issues, including the scientific quality of the division's products and activities.

678. The director may authorize the State Geologist to exercise his power to appoint employees of the division in accordance with the State Civil Service Act. The director may authorize the State Geologist, or any employee of the division, to exercise any power granted to, or perform any duty imposed upon, the director by the State Civil Service Act.