



State Mining and Geology Board

Annual Report

2009-2010



Department of Conservation
Natural Resources Agency

December 2010



Arnold Schwarzenegger
Governor
State of California

Lester Snow
Secretary
Natural Resources Agency

Derek Chernow
Acting Director
Department of Conservation

Cover Photo: Active surface mining as shown in an aerial image of a portion of the Yuba Goldfields, Yuba County.

ANNUAL REPORT
of the
STATE MINING AND GEOLOGY BOARD

2009-2010

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STEPHEN M. TESTA
Executive Officer



State Mining and Geology Board
801 K Street, Suite 2015
Sacramento, California 95814

ANNUAL REPORT of the STATE MINING AND GEOLOGY BOARD 2009-2010

OVERVIEW

The 2009-2010 Edition of the *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 2009-2010 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.

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. During the 2009-2010 reporting period, no new or updated A-P EFZ maps were received for hearings to be scheduled by the SMGB to receive comment. In 2007, the SMGB established a Technical Advisory Committee (TAC) to review the A-P EFZ Act and the SMGB's regulations in light of the current state of engineering and geological science. The work of the TAC is near completion with a report in preparation.

On April 4, 2010, a magnitude 7.2 earthquake struck northern Baja California 40 miles south southeast of Calexico. Following this major event, in May 2010 CGS made a presentation to the SMGB summarizing their observations from what was called the El Mayor - Cucapah earthquake. Results were presented from mapping of surface fault rupture/triggered slip on several faults in the Yuha Desert region of southernmost California, including traces of the Laguna Salada, Elsinore, San Jacinto, San Andreas, and Imperial faults. Several newly mapped faults also displaced the ground surface, including the newly named Yuha Fault. A Fault Evaluation Report of the Yuha Desert area is nearly complete and the A-P EFZ Program anticipates issuing 4 to 5 new A-P EFZ maps in this region in the 3rd quarter of fiscal year 2010-2011. By the end of fiscal year 2009-2010 CGS A-P EFZ staff was increased to 3 person years (PY) and evaluation of faults in both Northern and Southern California currently is underway. CGS anticipates issuing new and revised A-P EFZ maps in the 3rd quarter of fiscal year 2010-2011.

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. During the 2009-2010 reporting period, no new or updated SHMA maps were received for hearings to be scheduled by the SMGB to receive comment.

SMARA has been amended 28 times since its enactment in 1975, and SMARA related activities again occupied the majority of the SMGB's time and resources during the 2009-2010 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 109 SMARA lead agencies in California. At the end of this reporting period (June 30, 2010) the SMGB has exercised full SMARA authority for 10 jurisdictions that possessed no SMARA mining ordinances. In addition, the SMGB served as a lead agency under SMARA for two counties, six cities, and for 12 marine dredging operations within the jurisdiction of the San Francisco Bay Conservation and Development Commission (BCDC). The SMGB also considered assumption of SMARA lead agency authority for the City of Lake Elsinore and County of Sierra.

The SMGB is also responsible pursuant to SMARA for reviewing and accepting mineral resource lands classification reports prepared by CGS, and for designation of such lands of regional significance. Two classification petitions were reviewed and accepted by the SMGB during this reporting period. The SMGB accepted CGS Special Report 210 titled "*Update of Mineral Land Classification, Aggregate Materials in the Bakersfield P-C Region, Kern County, California.*" This report updated information on portland cement concrete (PCC) aggregate in the original classification study of the Bakersfield Production -Consumption Region published in 1988 by CGS as Special Report 147 titled "*Mineral Land Classification: Aggregate Materials in the Bakersfield Production-Consumption Region, Riverside County, California.*" The reevaluation and update in Special Report 210 identified 20,193 acres of land containing an estimated 4.4 billion tons of PCC-grade aggregate resources. The SMGB also reviews and re-certifies updated mining ordinances and recognizes Mineral Resources Management Plans (MRMP). No new MRMPs were recognized by the SMGB during this reporting period.

During the reporting period, one Order to Comply was appealed to the SMGB. In this case, the SMGB upheld the grounds for the Order to Comply issued by the Director of the DOC. No administrative penalties were issued by OMR to individual surface mine operators; thus, no administrative appeals were heard by the SMGB. Six requests for either a construction or one-time exemption from SMARA were considered by the SMGB, with five exemptions being granted and one exemption being denied.

The SMGB restates in its Observations and Recommendations section of this report where it believes the Legislature could address SMARA to increase efficiency and effectiveness in carrying out the stated intentions of the statute and regulations. The SMGB also recommends that consideration be given to providing a steady and reliable funding source that will allow continued mapping activities under the A-P EFZ Act and the SHMA, among other CGS programs.

Stephen M. Testa
Executive Officer

STATE MINING AND GEOLOGY BOARD ANNUAL REPORT FOR 2009 – 2010

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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 non-specialized public seat was vacant as of January 2010.

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 basis.

The SMGB has one currently 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, and currently is in the process of preparing their report and recommendations for the Geohazards Committee.

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.

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:

- 109 "Lead Agencies" (counties and cities), with authority over surface mining operations within their jurisdictions;
- Over 1,400 reporting surface mining operations within the State;
- Department of Conservation's Office of Mine Reclamation;
- Department of Conservation's California Geological Survey.

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

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:

- City, county and State agencies having jurisdictions over zoning ordinances, building codes, and general plan developments;
- Land developers and contractors;
- California Geological Survey;
- 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:

- City, county and State agencies having jurisdictions over zoning ordinances, building codes, and general plan developments;
- Land developers and contractors;
- California Geological Survey;
- 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.”

HISTORY OF THE SMGB

INTRODUCTION

In 2010, the SMGB celebrated its 125th anniversary. The SMGB has evolved over time, with its history divided into three major eras emphasizing the nature of its work: Board of Trustees during the Administrative Era (1885-1913), State Mining Board during the Mineral Resources Development Era (1929-1965), and SMGB during the Mineral Conservation, Reclamation and Geologic Hazards Era (1965- Present). The SMGB was established in 1885 as the Board of Trustees. Its original purpose was to oversee the activities of the State Mineralogist and the Bureau of Mines, now the CGS, which was created by the Legislature five years earlier. The Board of Trustees was abolished in 1913, and reestablished as the State Mining Board in 1929. During these early years, the State Mining Board provided general policy and guidance to the Governor and the Division of Mines (now CGS), and served an advisory role for the Department of Natural Resources (now Department of Conservation) which was established in 1927. The State Mining Board was renamed the State Mining and Geology Board in 1965. Its focus was primarily on development of the State's mineral resources. In the 1960s, the emphasis on mineral resource development would shift to geologic hazards and addressing the environmental impacts of mining. By 1975, the SMGB was granted additional powers and duties, and became involved with the implementation of policy pertaining to geologic hazards and surface mining and reclamation. These responsibilities recognized the impacts that California's complex geology, large amounts of federally managed lands, high mineralization, and potential for geologic hazards, had on the State's economy, land use, and public safety.

ESTABLISHMENT OF THE BOARD OF TRUSTEES (1885 – 1913)

The predecessor of today's CGS was created by the Legislature in 1880 under "*An Act to provide for the establishment and maintenance of a Mining Bureau.*" Its chief officer was designated as the State Mineralogist. Soon after the establishment of the State Mining Bureau in 1885, it was quickly noted that the responsibility of the rapidly growing Bureau was too much for one individual to assume (Hanks, 1885). California's first appointed State Mineralogist, Henry G. Hanks, repeatedly asked the Legislature for the appointment of a Board of Trustees who would be vested with the financial and general management of the Bureau, leaving Hanks free to pursue the work of the Bureau. The State Mining and Geology Board was established in 1885 as the Board of Trustees. Its purpose was to oversee the activities of the State Mineralogist and the State Mining Bureau, which was created five years earlier.

Assembly Bill No. 78 was passed by the Assembly on February 11, 1885, and the Senate on March 5, 1885. The bill was titled:

"An Act supplementary to an Act entitled 'An Act to provide for the establishment and maintenance of a Mining Board'", approved April 16, 1880. The bill read as follows:

The people of the State of California, represented in Senate and Assembly, do enact the following:

SECTION 1. All property of this State pertaining to said Mining Bureau, and the money and financial affairs thereof, shall be vested in and be under the direction and control of a Board of Trustees of said Bureau.

SECTION 2. It shall be the duty of the Governor of the State to appoint five (5) citizens and residents of this State to be such Trustees.

SECTION 3. The appointees herein mentioned, when assembled, shall constitute the Board of Trustees of the State Mining Bureau, three of whom shall constitute a quorum. The Board shall have power by said name, to sue and defend. They shall keep a record of all their proceedings, and they shall elect one of those so appointed to be President of the Board, and shall have the right to appoint a custodian of the Museum and other employees. The State Mineralogist shall be the director of the Museum, and shall have the right to appoint a custodian of the Museum, and other employees, subject to the approval of the Board of Trustees, and it shall be his duty to consult the Board in all matters of importance.

SECTION 4. Said Board shall make rules for its own government, for regulating the custody and disbursement of funds, and the mode of drawing the same from the State Treasury.

SECTION 5. The Board of Trustees shall, annually, report to the Governor of the State the condition of the Bureau, with a statement of the receipts and expenditures in detail, which report shall be published in the annual report of the State Mineralogist, provided for in the Act to which this is supplementary.

SECTION 6. The Trustees are hereby empowered to pay out of any moneys coming into their hands, the amount advanced by Wells, Fargo & Company, shown in the financial statement of the State Mineralogist, and published in his reports.

SECTION 7. The Board of Trustees shall be empowered to receive, on behalf of the State, bequests or gifts, legacies and devises, real estate and other property, and to use the same in accordance with the wishes of the donors; and if no instructions are given, to use their discretion for the best interests of the State Museum.

SECTION 8. The Board of Trustees may, with the assistance of the State Mineralogist, prepare a special collection of ores and minerals of California, to be sent to any World's Fair or Exposition, at which they may deem it desirable to display the mineral wealth of the State.

SECTION 9. All Acts or laws in conflict with this Act are hereby repealed.

SECTION 10. This Act shall take effect immediately.

In accordance with the provisions of the Act, the Governor appointed the following "gentlemen" Trustees:

Chairman: William Irelan, Jr. (Figure 1)
Vice Chairman: S. Heydenfeldt, Jr.
J. Z. Davis
Walter E. Dean
George Hearst (Figure 2)



Figure 1. Board of Trustees Chairman William Irelan, Jr., who from 1886 to 1892 would become the second State Mineralogist.

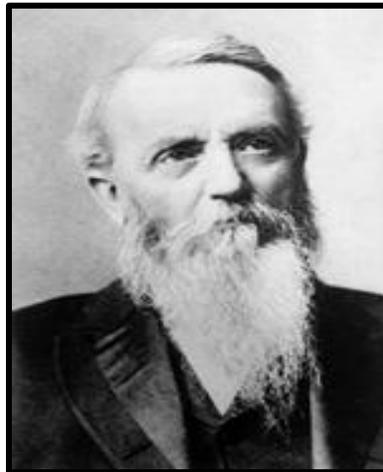


Figure 2. Founding Board of Trustees member George Hearst.

The Board was organized on April 18, 1885. All financial matters from such date would be managed by the Board of Trustees, who would also report yearly to the Governor.

The early reports of the Board of Trustees focused on the condition of the State Mining Bureau, its increase in minerals for the museum, books, etc., and a statement of its receipts and expenditures. The Board would be persistent and relentless in their recommendations and pursuit of increases in the appropriations for the State Mining Bureau.

On May 13, 1886, William Irelan, Jr., was appointed State Mineralogist following the resignation of Henry G. Hanks, Esq. Irelan's replacement on the Board of Trustees was W. S. Keyes, Esq. Walter Dean was absent from California when the report was prepared, and thus was not listed as a Board member. Noteworthy in their 1886 report:

“It is deplored that our Legislature have, for a successive number of years, seemingly ignored the importance of our mineral deposits.

Our Geological Survey failed for want of appropriations in 1873-74, and has been discontinued ever since; the Mining Bureau was not established until 1880, and has never received the financial assistance needed.

The smallest of the Colonies of Great Britain give more attention and encouragement to their mining interests than the State of California.”

After summarizing the monies devoted to building roads and prospecting in New Zealand over the past four years, that being on the order of \$1,185,567, they would go on to state:

“In view of these facts, the Trustees of the State Mining Bureau earnestly appeal to the Legislature, to give the aid so greatly needed, which will contribute materially to the wealth and progress of the State, and to the prosperity of her people.

The sum of one hundred and twenty-five thousand dollars (\$125,000) for the two coming fiscal years, is respectfully suggested, as a moderate appropriation for the support and maintenance of the Mining Bureau”

The Board of Trustees aim during these early years was to make the Mining Bureau “*most practical, uniting scientific as well as educational features.*”

In 1891, the Board of Trustees would publish “Preliminary Mineralogical and Geological Map of the State of California” (Figure 3). The map was prepared and published in four sections as a scale of 1:750,000; 12 miles equals one inch. Beginning with this map, the responsibility for succeeding editions of relatively large-scale geologic maps of California has remained with the State. Only eight geologic units were depicted with special emphasis given to mineral resources, including auriferous gravel, auriferous slate and limestone, and the locations of known mineral deposits are shown. The map was issued by the State Mineralogist, William Ireland, Jr. and executed by Mr. Julius Henkenius with aid from the Field Assistants.

What did California gain from their efforts?

“We deem it safe to affirm that the money voted by the Legislature for the support of our institution has already induced cash investments in this State aggregating over one million of dollars; in a word, more than tenfold the sum total of the whole appropriation.”

The State Mining Bureau Act of 1893 would further clarify the roles of the Board of Trustees and the State Mineralogist.

By 1896, the Board makeup was;

J. Z. Davis
W. S. Keyes (Figure 4a)
Thomas B. Bishop (Figure 4b)
W. S. Lyle
J. E. Doolittle (Figure 4c)



Figure 4. 1896 Board of Trustees members Keyes (a), Bishop (b) and Doolittle (c).

The last report of the makeup of the Board of Trustees was noted in a mine register published by El Dorado County in 1902. The 1902 publication noted the Board of Trustees being comprised of:

W. C. Ralston, President
Thomas B. Bishop, Vice President
Frank G. Drum
F. H. Harvey
Frank Monaghan (Figure 5)
J. F. Armstrong, Field Assistant

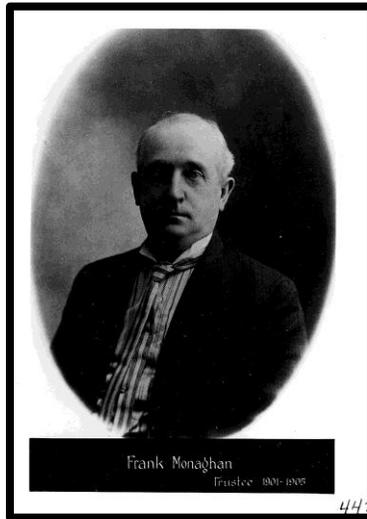


Figure 5. Trustee Member Frank Monaghan

ABOLISHMENT OF THE BOARD OF TRUSTEES (1913)

Although provisions were made in 1884 for a Board of Trustees, to be appointed by the Governor, and to act in an advisory capacity and to supervise expenditures, the Board of Trustees was repealed by amendment of the act in 1913, and all powers of the Board of Trustees were vested in the State Mineralogist.

In 1927, the Department of Natural Resources Act was implemented, which included the name of the State Mining Bureau being changed to the Division of Mines and Mining. The Executive Officer, known as the Director of Natural Resources, was responsible for the management of the new department. The department was divided into at least four divisions including the Division of Mines and Mining (formerly State Mining Bureau), Division of Forestry, Division of Parks and Division of Fish and Game. The Division of Mines and Mining was administered by a chief known as the State Mineralogist.

The department was invested with all the duties, powers, purposes, responsibilities and jurisdiction of the State Mining Bureau, State Mineralogist, and Department of Petroleum and Gas.

ESTABLISHMENT OF THE STATE MINING BOARD (1929 – 1965)

In 1929, the Division of Mines and Mining was changed to the Division of Mines. The State Mining Board was also created in 1929 by amendment of the Department of Natural Resources statute (Sections 373a and 373b of the Political Code, Chapter 128). Legislation in 1929 amended the 1927 statutes and created the five-member State Mining Board, which had the responsibilities to determine "...*general policies for the guidance of the Division of Mines.*" The board would serve as an advisory group to the State Mineralogist and the Director of the Department of Natural Resources. Board members were appointed by the Governor, and held office at the pleasure of the Governor.

According to W. W. Bradley in his Biennial Report of the State Mineralogist for the period

July 1, 1928, to June 30, 1930 (26th Report of the State Mineralogist, pp. 489-494, 1931).

“The first meeting of this new board was held in Sacramento, April 10, 1930, at which time an outline of policy and procedure was adopted. Subsequently, two meetings were held in San Francisco, the budget for the coming biennium for the division and the geological survey being the principal matter considered and approved for recommendation.”

Note: The geological survey referred to above was the Geological and Economic Mineral Survey, a part of the Division organization under the direction of the Chief Geologist.

No records of minutes of these meetings of this first board could be located, nor did subsequent publications of the Division of Mines and Geology refer to subsequent meetings of the board. According to Stewart (1970), the earliest record in the board files maintained by the Division of Mines and Geology pertained to the Mining Board appointed by former Governor Merriam (1934-1939). The Mining Association of California in an undated statement makes reference to the fact that *“For the past several years this important Board, whose duty it is to advise the Governor upon general policies for the guidance of the Division of Mines, was allowed to lapse.”* This statement was followed by the minutes of the first four meetings of that Board.

The 1934 Board appointed by Governor Merriam was composed of:

Errol MacBoyle	President, Idaho-Maryland Company, Grass Valley
Charles G. Johnson	State Treasurer, Sacramento
Robert A. Kenzie	Consulting Engineer, San Francisco
Charles H. Segerstrom	President, Carson Hill Gold Mining Corporation, Sonora
Edward M. Smith	President, Emsco Asbestos Company, Los Angeles

At the first Board meeting, August 14, 1934, MacBoyle was elected Chairman. Smith resigned and was replaced by Robert Linton. Mr. J. C. Kemp van Fe was named Secretary.

The next known record of board meetings was in a letter dated July 17, 1940, which referred to a regular meeting of the board on June 16, 1940, and an excerpt of that meeting. With the previous Board becoming inactive, Governor Olson appointed a new Board composed of:

C. H. O'Rourke
James E. Babcock
Vincent W. Ryan
Leroy Palmer
Frank Clark

From March 1, 1943 to June 30, 1943, the World War II years, the budget was reallocated. A gap exists in the known record until 1944, with no information on activities of any board during this interim. A press notice, dated April 21, 1944, announces a new Board appointed by Governor Warren (1942-1952), which marked the beginning of the “modern” Board. Meetings were identified as *“The first meeting of the State Mining Board appointed by Governor Warren.”* P. R. Bradley was named Chairman on April 26, 1944, a position he would hold for nearly 26 years.

In 1945, the State Mining Board policy statement was published in the Mining and Industrial News (January 1945). The Board under Governor Warren was composed of:

Philip R. Bradley, Jr.	Pacific Mining Company, Jamestown
F. C. Van Deirse	General Manager, Yuba Consolidated Goldfields; President, Gold Producers of California, San Francisco
William C. Browning	Manager, Golden Queen Mining Company, Mojave
William Wallace Mein, Jr.	Calaveras Cement Company, San Andreas
George W. Hallock	President, California Hydraulic Mining Association, Grass Valley

At its meeting of January 19, 1950, the Director of the Department of Natural Resources, General Warren T. Hannison, had a drawing by lot to decide on the expiration dates of each of the five members of the State Mining Board. The results of the drawing were to be submitted to the Governor for his approval. At its March 7, 1950, meeting, the Director notified the Board that the Governor had approved the drawing by lot, and had appointed the members of the Board, subject to Senate confirmation the day of this meeting, effective February 9, 1950, for terms as follows:

F. C. van Deirse	Expiration January 15, 1951
William Wallace Mein, Jr.	Expiration January 15, 1954
George W. Hallock	Expiration January 15, 1951
P. R. Bradley, Jr.	Expiration January 15, 1952
William C. Browning	Expiration January 15, 1952

All but Mein were reappointed for additional four-year terms. Van Deirse resigned in 1953, and his place was filled by J. P. Hall, a publisher from Santa Cruz. In 1954, Mein would be replaced by L. L. Huelsdonk, General Manager of Best Mines, for a term ending January 15, 1958. Hallock was elected Secretary. Hall was formally appointed for a term ending January 15, 1955.

Policy statements introduced by the Board during this period permeated all facets of the Division. Those approved included:

- A. Secure and publish the results of the work of the United States Geological Survey in California.
- B. Enlarge the program of purchase of geologic reports made by qualified graduate students of the universities.
- C. Increase, so far as possible, the amount of work of an engineering nature.
- D. Increase, so far as possible, attention to metallurgical developments and recording of metallurgical processes and history on California.
- E. Cooperate with those Colleges of Mining and Universities in the State where research in mining and metallurgical fields is proceeding, to the extent that, where of sufficient importance, the results of such work may be placed in the Library of the Division.
- F. To the list of publications add two bulletins printed not less often than annually, summarizing (1) advances in the metallurgy of metals and minerals in California, and 2) new State and Federal laws pertaining to mining.
- G. Re-catalogue and re-index the contents of the Library and place the Library in the hands of a trained librarian.

- H. Re-catalogue the publications of the Division and publish same, with a competent subject index.
- I. Improve the appearance of the Monthly Commercial Mineral Notes.
- J. Emphasize the importance of obtaining, through the field offices, comprehensive maps of underground mine workings of mines within the jurisdiction of each field office.
- K. Press the completion of topographic quadrangle maps of the mineral areas of the State of California.
- L. Press a market survey for both metallic and non-metallic minerals in the State of California.
- M. Investigate and publish a bulletin upon compensation rates, compensation fund payments and accumulations and other matters pertaining to industrial accidents insurance for the mining industry in California.
- N. Make determined campaign to publicize the work of the Division.

Other matters in which the Mining Board expressed policy came to the board's attention through the expressed needs of the Division of Mines or from outside sources. Since functions of the Division of Mines as well as its operating procedures are carefully delineated in the Public Resources Code, lack of the board's expression of policy along these lines was deliberate. Regardless, some problem areas where policy was expressed included matters pertaining to personnel, frequency of reporting by the Chief (State Geologist) to the Director of Natural Resources for transmittal to the Governor, the need for a conference expressing the need for the Justice Department to provide investigators and legal advice required for compliance with the Ore Buyers License Act, withdrawals of large areas from the public domain, the confidentiality of publishing production statistics, the need to support mineral research, and the benefit of having the State Mining Board meet in conjunction with minerals symposia conducted by the State Division of Mines.

In a letter dated November 25, 1953, to Chairman Bradley, DeWitt Nelson, Director of the Department of Natural Resources, commented on the fact that Board meetings must be open (Chapter 1588, Statutes of 1953, Section 54590) stating *"In enacting this chapter, the Legislature finds and declares that the public commissions, boards, and councils and other public agencies in this state exist to aid in the conduct of the people's business. It is the intent of the law that their actions be taken openly and that their deliberations be conducted openly."* Nelson would go on to state that *"The Mining Board is a policy making board. Whenever it voted on a policy it must do so in an open, public meeting."*

By the late 1950s, the functions of the Department, Division and State Mining Board would be clarified. With the possible passing of AB 1607 in 1957, in a letter dated June 28, 1957, to State Geologist Jenkins from Director Nelson, new guidelines for the Department, Division, and Board were established.

"The Division of Mines and the State Mining Board have been given new opportunities and responsibilities in the field of policy, program and administration with the passing of Assembly Bill 1607 (assuming that this bill will be signed by the Governor). This bill would later be vetoed by the Governor, but would reappear in the form of AB 1102 of the 1950 Legislature.

"Whether this bill is signed or not I wish to establish some new operating procedures and relationships between the Mining Board, the Division and the

Department. Therefore, effective upon receipt of this communication, the following will be order:

- 1. The Division of Mines shall be administered by and through the Chief of the Division in accordance with state statutes and the policies prescribed by the Mining Board. This administration shall be carried out under the supervision and direction of the Director.*

In order that the functions of all three of these agencies (Board, Division and Department) may be properly executed and in order to clarify any misunderstandings at the various levels, it is important that we each recognize our respective authorities and responsibilities in the work of the Division:

- (a) The Chief of the Division will administer the Division of Mines under the provisions of the statutes and the policies established by the Board.*
 - (b) The Board policies, directions and suggestions shall be directed to the Chief with a copy to the Director in the form of the Board's minutes.*
 - (c) The Chief will carry out these policies, directions, and suggestions to the best of his ability within limitations of budget, programs and statutes.*
 - (d) In order to facilitate the operations of the Mining Board, the Chief shall work with the board chairman in the development of agenda for meetings and shall provide necessary secretarial services for the taking and distribution of minutes.*
- 2. The Mining Board shall establish the necessary policies and program areas for the Division in full consultation and corporation with the Chief and the Director. Each level must share the responsibility of counseling with the Mining Board in the development of policies and program areas within the limits established by law and legislative intent.*
 - 3. The Director shall be responsible for general supervision through the Chief, of the work conducted by the Division of Mines and share in the responsibility of counseling with the Mining Board in the development of policies and program areas.*
 - 4. In developing and executing the provisions of Assembly Bill 1607, which creates a \$500,000 annual appropriation for research in the mineral field, it is important that we reorient our approach to the problem and the part we play in the organization. As such, it is essential that the Division and Board present suggested research programs. I believe it to be further desirable that the Board request the counsel of representatives of mining schools, industry, and other competent sources for the development of such program areas. Invitations for such participation may well be handled by the Chief in consultation with the chairman. When the scope of the program and the various projects are determined and approved by the Board, the details of working out budgets, contracts, supervision, etc., shall be the responsibility of the Chief of the Division. This and other policies and program areas can be*

satisfactorily developed only by complete corporation on the part of all concerned.

If we all put our shoulder to the wheel and work together for the common goals in which we are all interested and concerned, I am confident that this set of guide lines will materially facilitate all programs.”

Policies, directions and suggestions of the State Mining Board were thus directed to the Chief (State Geologist) with copies forwarded to the Director of the Department in the form of the board's minutes. To facilitate operations of the State Mining Board, the Chief worked closely with the Chairman of the board in the development of agendas for meetings, and provided necessary secretarial services for the taking and distribution of minutes.

ESTABLISHMENT OF THE RESOURCES AGENCY OF CALIFORNIA (1961)

Prior to the 1960s, the State Mining Board was dominated by representatives of the State's mineral industry, and the Division of Mines and Geology was “a 100% minerals industry oriented organization” (SMB Minutes, April 9, 1964). Earthquake research was steadily increasing in the late 1960s within the Division. Before the 1960s, in the Division, much like in the United States Geological Survey, the emphasis was placed “in obtaining and providing information of benefit to the State's mineral industry” (SMB Minutes, April 9, 1964).

This was all about to change under the tenure of State Geologist Dr. Ian Campbell (Figure 6). In 1960, Campbell justified to the State Mining Board and initiated a small geologic mapping program in the Palos Verdes area, and several other areas throughout Los Angeles County that were rapidly being urbanized, but threatened by landslides. He also noted that these areas being developed also threatened to pave over vast deposits of sand and gravel, which were among the State's most valuable mineral resources. This mapping however would also aid in the delineation of areas susceptible to landslides, earth shaking due to earthquakes, and other geologic hazards (SMB, Minutes, January 28, 1960).

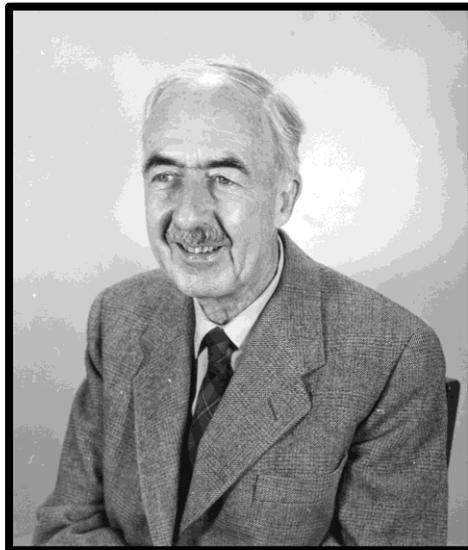


Figure 6. State Geologist Dr. Ian Campbell.

By 1961 the Governor's cabinet, which was made up of the heads of several Departments, was also becoming unwieldy. The solution was the creation of The Resources Agency of California which included the Department of Natural Resources, but not without a name change. The Department of Natural Resources was renamed Department of Conservation. The Division of Mines was renamed the Division of Mines and Geology, and its Chief became the State Geologist. The makeup of the SMB is shown in Figure 7.



Figure 7. The 1964 State Mining Board. From left to right (sitting), Lewis L. Huelsdonk, Thomas H. Rogers, Philip R. Bradley, Edmond F. Brovelli and D. L. Marlett. Standing is State Geologist Dr. Ian Campbell, and Department of Conservation Director DeWitt Nelson.

STATE MINING AND GEOLOGY BOARD (1965 – Present)

In 1965, power among the State legislature shifted from rural counties, many still dependent on mining, to urban counties. Concurrent with this political shift a bill was passed making “*large scale geologic mapping to provide timely delineation of geologic hazards in urban areas*” an integral part of the division’s mission.

In 1965, under existing statutory law, the State Mining Board was renamed the State Mining and Geology Board (SMGB), and in 1975 it was vested with certain powers and duties with respect to mining and geology. During this year, a different composition and organization for the SMGB was enacted with Senate Bill 756 (Nejedy, Chapter 1131, Statutes of 1975). The new SMGB would generally succeed the powers and duties of its predecessor board, but would be vested

with additional powers and duties. Two new members to the board included a structural geologist and an engineer-seismologist. These two new members, Clarence Allen and Karl V. Steinbrugge, along with existing member, Stanford geologist Richard Jahns, would form a cohesive bloc, along with Campbell, in support of the Division's geologic hazards program (SMGB, Minutes, March 12, 1969 and August 8, 1968). The new board would also govern surface mining operations and reclamation.

With the expansion of the SMGB's authority and responsibilities (1976-1985), a number of innovative public policies were developed in the areas of mineral resource conservation, mined land reclamation and geologic hazards. These policies would later be incorporated into regulation and included:

Alquist-Priolo Earthquake Fault Zoning Act

- Adopted regulations in corporation with the Seismic Safety Commission regulations which implemented the Alquist-Priolo Special Studies Zones Act. These regulations outlined local and state responsibilities for the use of geologic information in preventing structures for human occupancy from being constructed in active fault zones.

Seismic Hazards Mapping Act

- Developed guidelines and priorities for the Department of Conservation in implementing its Landslides Hazards Identification Program pursuant to AB 101.
- Developed graduation requirements for public schools that included geology and natural resources in corporation with the Board of Education and its Curriculum Commission.

Surface Mining and Reclamation Act

- Developed mineral lands classification-designation processes and provisions for related petitions and mapping priorities.
- Developed guidelines for the preparation of reclamation plans.
- Formulated a Memorandum of Understanding between California's Resources Agency, the US Forest Service and the Bureau of Land Management, which recognized SMARA's applicability to federal lands in California.
- Completed the first and precedent setting mineral lands classification-designation process for construction aggregates in the San Fernando Valley, Los Angeles County; construction aggregates resources in Southern California, the San Francisco Bay and Sacramento Production-Consumption regions were also classified and designated.
- Expanded the classification-designated process to highly mineralized regions of the State, such as the Sierra Nevada, which were considered by SMARA's definition to be "non-urban" but were none the less experiencing threats from urban pressures.
- Expanded the SMGB's oversight role in requiring certification of local SMARA ordinances, mineral resources management policies for inclusion in a local lead agency's General Plan and a time certain for the submittal of reclamation plans to lead agencies for approval, by operators with vested rights. These policy provisions were adopted legislatively by SB 1300.

To better coordinate the implementation of SMARA with local government, the SMGB's staff was expanded to include a Designation Coordinator and a Reclamation Coordinator. The functions of the two positions were later incorporated into the State Geological Survey's (formerly the Division of Mines and Geology) Office of Mine Reclamation.

In 1990, AB 3551 and AB 3903 assigned several new and important responsibilities to the SMGB, requiring the SMGB to play an increasingly critical role in the implementation of SMARA. In a letter addressed to James A. Anderson, SMGB Chairman, from Byron D. Sher, Chairman of the Natural Resources Committee, dated February 6, 1991, Sher advised the Chairman that how the SMGB handles these new duties will help determine whether the legislative reforms enacted in 1990 would succeed or fail. The board's work was outlined to include:

- Establishment of a schedule of industry fees.
- Development of annual reporting and inspection forms.
- Adopting new reclamation standards.
- Formulation of procedures for assuming lead agency jurisdiction and handling appeals of enforcement actions and financial assurances.

Sher was hopeful that local enforcement of SMARA could be established and that the SMGB members "*...recognized that SMARA now requires more of a shared partnership between state and local government. Because of a past history of poor enforcement by some lead agencies, the law now provides for the state to play a greater role in the operation of SMARA. I believe that the centerpiece of this partnership is development of an effective state monitoring and oversight program under the Department of Conservation, Monitoring and oversight is essential for the state to determine when, and if, enforcement actions should be undertaken by the State Geologist and lead agency authority should be preempted by the Mining and Geology Board.*"

Upon the direction of the Governor at the signing of SB 741 (Rogers, Chapter 1287, Statutes of 1993), the Department of Conservation formed the Office of Mine Reclamation (OMR), which realigned SMARA duties within the Department of Conservation. The Mine-Lands Reclamation Program and the Caltrans Reclamation Program were removed from the then Division of Mines and Geology and also consolidated within OMR. SMARA-related staff previously assigned to the SMGB was reassigned to OMR.

As noted above, today's SMGB is composed of nine members appointed by the Governor, and confirmed by the Senate, for four-year staggered terms. The SMGB operates within the Department of Conservation, and is granted certain autonomous responsibilities and obligations under several statutes.

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).

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 trace of potentially hazardous faults. 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.

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 July 2006, 559 Official maps of Earthquake Fault Zones had been issued by CGS. Of these, 160 have been revised since their initial issue, and four maps have been withdrawn. Thirty-six counties and 104 cities are affected by the existing Earthquake Fault Zones (Table 1). Since July 1, 2000, 14 additional maps have been generated, with one map being revised (Table 2). No new maps were released during the 2009-2010 reporting period. A typical Earthquake Fault Zone Map, for the Corona South Quadrangle Revised Official Map Effective May 1, 2003, is shown in Figure 8.

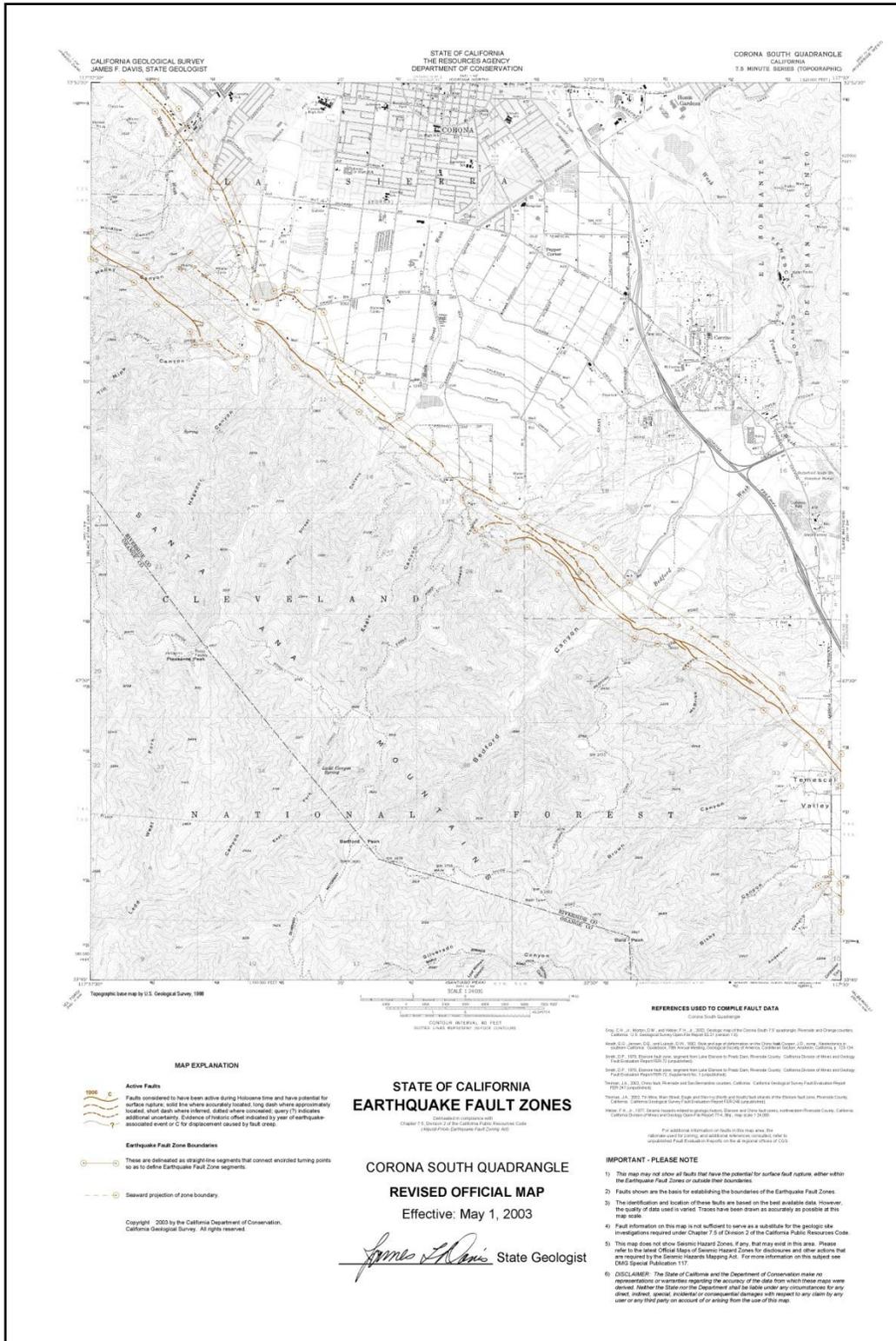


Figure 8. Earthquake Fault Zone Map for the Corona South Quadrangle Revised Official Map Effective May 1, 2003.

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 August 16, 2007**

Cities (104)			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	Pacifica	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

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 Pubic 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	January 16, 2003
Malibu Beach Quadrangle (Los Angeles County)	Los Angeles County	1	February 16, 2007

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 public hearings within the affected lead agencies to receive technical comments about the maps (Table 2). These comments are reviewed by the SMGB's Geohazards Committee, and then forwarded to the State Geologist for consideration for inclusion in the Official Earthquake Fault Zone Maps. The approval of a project by a city or county must be in accordance with the policies and criteria established by the SMGB, and geologic reports prepared by affected lead agencies must be in sufficient detail as to meet the SMGB's policies.

A magnitude 7.2 earthquake struck northern Baja California 40 miles south southeast of Calexico on Sunday, April 4, 2010. The El Mayor - Cucapah earthquake was felt over the southern California region and as far away as Las Vegas, Nevada. The shaking caused some structural damage in Calexico, and more extensive damage in Mexico. The earthquake was caused by a 28 km rupture along a northwest-trending fault extending northward to the international border. Preliminary estimates of 1.2 meters of surface displacement along the fault have been made by field geologists from Centro de Investigación Científica y de Educación Superior de Ensenada, Baja California, with land on the east side of the fault shifting down and toward the south. Teams of geologists from CGS and the USGS were dispatched to help map the ground rupture, which has been traced across the border into California, and to document the occurrences of secondary ground failure caused by soil liquefaction.

CGS made a presentation to the SMGB on May 13, 2010, summarizing their observations and results from mapped surface fault rupture/triggered slip on several faults in the Yuha Desert region of southernmost California, including traces of the Laguna Salada, Elsinore, San Jacinto, San Andreas, and Imperial faults (Figures 9 and 10). Several newly mapped faults also displaced the ground surface, including the newly named Yuha Fault. A Fault Evaluation Report of the Yuha Desert area is nearly complete and the AP Program anticipates issuing 4 to 5 new maps of Alquist-Priolo Earthquake Fault Zones in this region in the 3rd quarter of FY 2010-2011. By the end of FY 2009-2010 AP staff was increased to 3 PY and evaluation of faults in both Northern and Southern California currently is underway. CGS anticipates issuing new and revised AP EFZ maps in the 3rd quarter of FY 2010-2011.



Figure 9a and b. Images showing large dextral normal slip on fault just east of Laguna Salada fault, Baja California (Courtesy of CGS).



Figure 10a. A large sand boil in agricultural fields in the Mexicali Valley, Baja California. Out of 163,000 hectares (ha) actively farmed in the Mexicali Valley, 57,035 ha were affected by the earthquake, and 26,000 ha may never go back into production. Most of this damage was liquefaction-related, caused by sand vented onto fields, surface settlement disrupting flood irrigation procedures and often allowing high salinity or polluted water to flood fields, and lateral spreading damage to irrigation canals and/or drainage ditches (Photo courtesy of Heidi Stenner, 4/16/10).



Figure 10b. Liquefaction lateral spreading damage to Drew Road adjacent to Sunbeam Lake Park, South of the town of Seeley, Imperial County. Liquefaction undermined the road, the grassy field to the right and the lake's earth dam, located just to the right of the photo. Water was observed "geysering" from the large break in the road during the earthquake and muddy water stains can be seen on asphalt (Photo courtesy of the Imperial County Planning and Development Services Department, 4/4/10)



Figure 10c. An example of triggered slip on the Laguna Salada Fault, west branch, in the Yuha Desert, western Imperial County. Fault displacements in this area ranged from 10 to 30 mm right lateral and 0 to 8 mm vertical (Photo by Tim McCrink, 4/12/10)

Legislative Actions

Senate Bill SB 113, an omnibus bill, contained language that would have exempted from A-P EFZ Act requirements state-owned buildings on the National Register of Historic Places. Although SB 113 was signed into law in 2009, Governor Schwarzenegger issued a signing statement requiring further work to correct the affected part of the A-P EFZ Act. Passed in 2010, Assembly Bill AB 2133 restored the pre-SB 113 language in the A-P EFZ Act, but exempted the California Memorial Stadium from A-P EFZ requirements. California Memorial Stadium is located across the active Hayward Fault.

Overall, the A-P EFZ Program has been severely impacted by budgetary constraints for the past several years. As a result, staffing for FY 2009-2010 was less than 1 PY. Most of the year was spent revising the 1994 Fault Activity Map of California. The 2010 version of the 1:750,000-scale Fault Activity Map, and accompanying documentation, was released at the end of April 2010. A-P EFZ staff completed two papers in July 2009: 1) the history of the AP Program and 2) defining the hazard of surface fault rupture. These papers were published in the February 2010 issue of Environmental and Engineering Geoscience. A-P EFZ staff also prepared and presented a paper on Quaternary Faults of the Sierra Nevada at the Association of Environmental and Engineering Geologists Annual Meeting on September 25, 2009.

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, and the disclosure by sellers to prospective buyers of lands located in seismic hazard zones.

Under the SHMA the SMGB developed, in cooperation with the State Geologist, guidelines and priorities for mapping seismic hazard zones, policies and criteria for local and State agencies to implement the SHMA, and guidelines for evaluating seismic hazards and recommending mitigation measures. On March 13, 1997 the SMGB adopted the *Guidelines for Evaluating and Mitigating Seismic Hazards in California*. These *Guidelines* have been published by CGS as Special Publication No. 117 (SP 117). The *Guidelines* reflect the collective intellectual talents from many individuals engaged in a broad spectrum of professions including the geological sciences, engineering, business, insurance, local government planning, academia, State and federal government agencies. A Technical Advisory Committee for the establishment of Grading Standards was established by the Geohazards Committee in 2004. The purpose of this subcommittee was to prepare a special section on grading techniques and standards for incorporation into an updated and revised version of SP 117. The subcommittee work was completed in early 2006. An updated version of SP 117, titled "Special Publication No. 117A", that includes the work of the subcommittee, was completed and published in early 2009.

The SHMA requires site-specific assessment of seismic hazards for most buildings constructed for human occupancy within designated seismic hazard zones in California. The burden of proof is on the developer to demonstrate that the site can be developed safely. Special Publication 117, "*Guidelines for Evaluating and Mitigating Seismic Hazards in California*", was prepared to help establish standards for site investigations within Official Seismic Hazard Zones, and has proven instrumental in raising the standards of geotechnical practice for evaluating seismic hazards since its first publication in 1997. Post-earthquake investigations worldwide and attendant advancements in earthquake science and engineering resulted in the 2008 revision of the *Guidelines*.

The *Guidelines* represent a target for the scope and content of geotechnical site investigations; however, the need for more specific advice on "how to" was requested by the City and County of Los Angeles, which resulted in publication of two important supplementary documents. One addresses procedures for field and laboratory analyses: "*Recommended Procedures for Implementation of DMG Special Publication 117 Guidelines for Analyzing and Mitigating Liquefaction in California*", and a second report of similar title addresses landslide hazards. These documents, published in 1999 and 2002, respectively, were the result of two ad hoc working groups organized through the southern California Chapter of the American Society of Civil Engineers, and published through the Southern California Earthquake Center. While adopted in southern California practice, they have also been used by a few communities in northern California. No equivalent document has been prepared and vetted by the geotechnical profession in northern California, where practice differs somewhat.

These two documents are now out-of-date and need to be brought into sync with the updated SP 117A guidelines, which provides an important opportunity to solicit input from northern California practitioners and to publish under State seal a single set of documents having statewide applicability. CGS has taken the lead in facilitating the development of a technical committee to achieve this goal.

Ten counties and 96 cities are affected by Seismic Hazard Zone Maps (Table 3). Between July 2000 and July 2006, 74 Official Seismic Hazard Zone Maps were released. Additional Preliminary Maps covering new areas were released in 2008. These official and preliminary maps cover parts of Alameda, Los Angeles, Orange, San Bernardino, San Mateo, Santa Clara and Ventura counties. No new maps were released during the 2009-2010 reporting period.

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 (Table 4). The SMGB's Geohazards Committee, or in some cases the whole SMGB, conducts public hearings within the affected local jurisdictions to receive 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. A typical Seismic Hazard Zones Map, for the San Juan Capistrano Quadrangle released on December 21, 2001, is shown in Figure 11.

Table 3 Lead Agencies Affected By the Seismic Hazards Zone Maps			
Cities			Counties
Agoura Hills	Industry	Orange	Alameda
Anaheim	Inglewood	Palos Verdes Estates	Los Angeles
Arcadia	Irvine	Paramount	Orange
Artesia	Irwindale La	Pasadena	Riverside
Azusa	Canada-Flintridge	Pico Rivera	San Francisco
Baldwin Park	La Habra	Placentia	San Bernardino
Bell	La Habra Heights	Pomona	San Mateo
Bell Gardens	La Mirada	Rancho Palos Verdes	Santa Clara
Bellflower	La Palma	Redondo Beach	San Diego
Beverly Hills	La Puente	Rolling Hills	Ventura
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	

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

Cities			Counties
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	October 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	March 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	November 14, 2002
Richmond, Oakland East, Oakland West, Briones Valley, Hunters Point, and San Leandro Quadrangles (Alameda County).	Alameda County.	6	November 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	January 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	January 16, 2003
Hayward, Mountain View, Newark, and Redwood Point Quadrangles (Alameda County), and the Ventura Quadrangle (Ventura County).	Alameda and Ventura Counties.	4	March 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	April 4, 2003
Acton and Pacifico Mountain Quadrangles (Los Angeles County).	Los Angeles County.	2	May 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	July 10, 2003
Milpitas and Niles Quadrangles (Alameda County), and Morgan Hill Quadrangle, (Santa Clara County).	Alameda and Santa Clara Counties.	3	June 10, 2004
Alpine Butte, Del Sur, Lancaster East, Lancaster West, Rosamond Quadrangles (Los Angeles County).	Los Angeles County.	5	September 9, 2004
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	March 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	July 13, 2006
Murrieta Quadrangle (Riverside County)	Riverside County	1	June 12, 2007
Dublin Quadrangle (Alameda County)	Alameda County	1	May 10, 2008
Livermore Quadrangle (Alameda County)	Alameda County	1	May 10, 2008

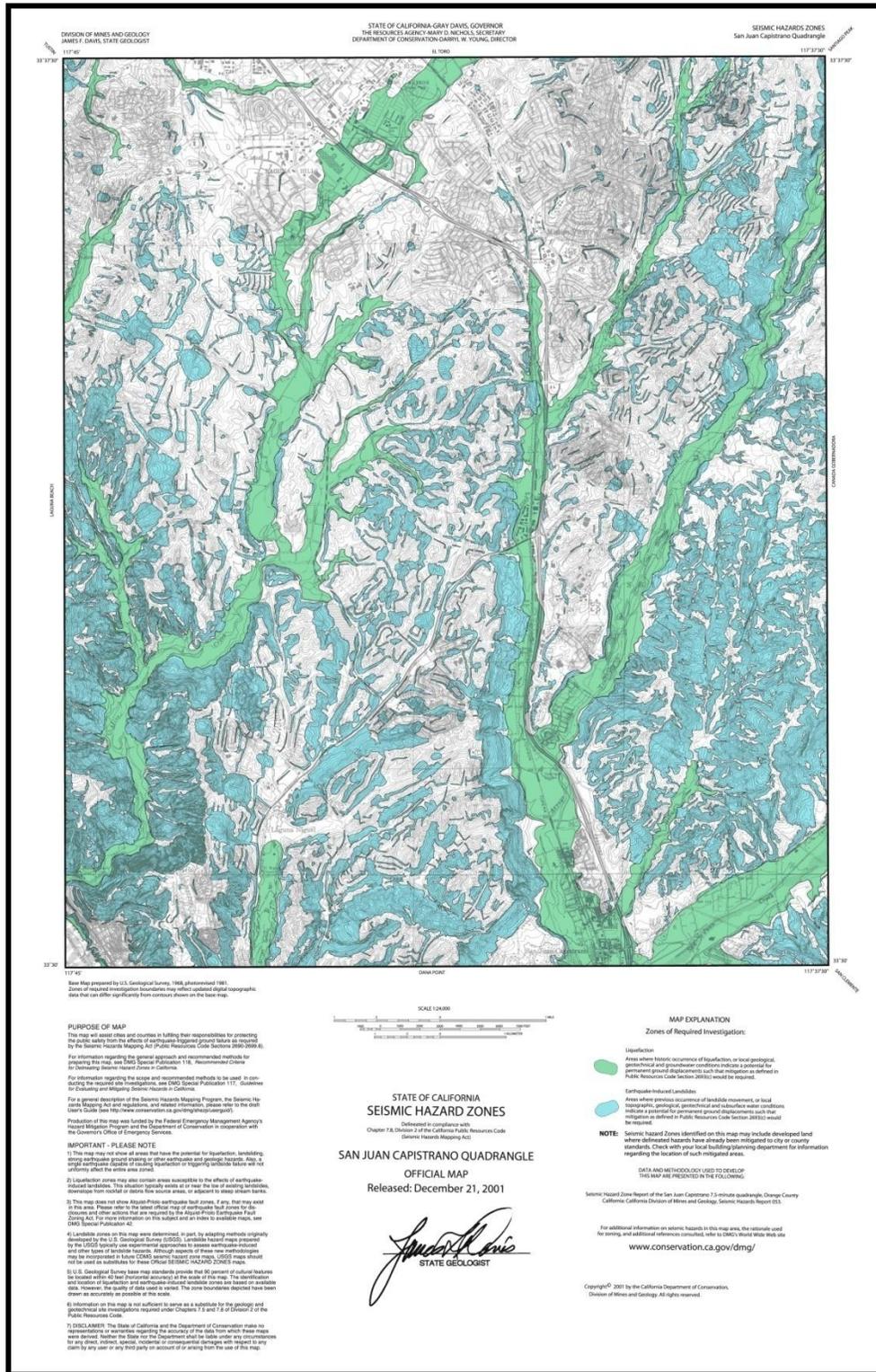


Figure 11. Seismic Hazard Zones Map for the San Juan Capistrano Quadrangle released on December 21, 2001.

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. 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 enforce SMARA and bring about compliance at individual 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 regarding reclamation plans and financial assurances taken by a lead agency. In addition, the SMGB is provided authority to assume a lead agency's SMARA authority when a lead agency's actions are in violation of the statute, or if it 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 (California Code of Regulations (CCR) Section 3700 et seq.), and types of financial assurance instruments that are acceptable to ensure reclamation.

The core services and activities of the SMGB are:

- Establish mining and reclamation standards and policies and provide guidance and direction to lead agencies, mine operators, the California Geological Survey, the Office of Mine Reclamation, 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.
- 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) it provides for the conservation of mineral resources. SMARA has been amended twenty-eight times since its enactment 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 in 1991 with AB 1506 (Sher), when additional performance standards for mine reclamation were required, financial assurances guaranteeing reclamation were made mandatory, surface mines without approved reclamation plans were given deadlines to comply or else close until compliance was achieved, annual inspections of mines by the lead agency were required, annual mining reports and fees from mine operators were established to support the SMARA program within the DOC, and new procedures for lead agency conditional approval of reclamation plans and financial assurances were implemented.

Statutory Changes

No statutory changes to SMARA were enacted during the 2009-2010 reporting period.

Regulatory Changes

No regulatory changes were implemented during the 2009-2010 reporting period.

Guidelines and Policies

No new policies or guidelines were considered during this reporting period.

MINERAL RESOURCES CONSERVATION

California is one of the nation's leading mining States in terms of both value and diversity of minerals produced, and based on preliminary data for 2008 the State ranks fifth after Arizona, Nevada, Florida and Utah in the value of non-fuel production. There were 1,224 reporting mines and quarries in the State for calendar year 2008. Of these, 717 produce non-fuel minerals. Combined production from these mines totaled approximately \$4.0 billion worth of

non-fuel minerals in that same year (Figure 12). Approximately 10,000 people are employed at these mines and their processing plants.

The only metals produced were gold and silver. 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.

California led the nation in the production of sand and gravel, diatomite and natural sodium sulfate, and was the only producer of boron and rare earth minerals. The State ranked second behind Texas for portland cement production. Despite a significant downturn in the production of construction grade sand and gravel in 2008, it continued to be California's leading industrial mineral, with an estimated total value of \$1.10 billion for 108.5 million tons produced. California's second largest mineral commodity was portland cement valued at nearly \$1.09 billion for 10.5 million tons produced. Valued at about \$700 million, boron was California's third highest dollar-value mineral produced in 2008. U.S. Borax and Chemical Corporation, Inc. (a subsidiary of Rio Tinto, Inc.) led the State and nation in the production of borates at their Boron Mine and facility in Kern County. Crushed stone ranked fourth in the State with a value of \$480 million.

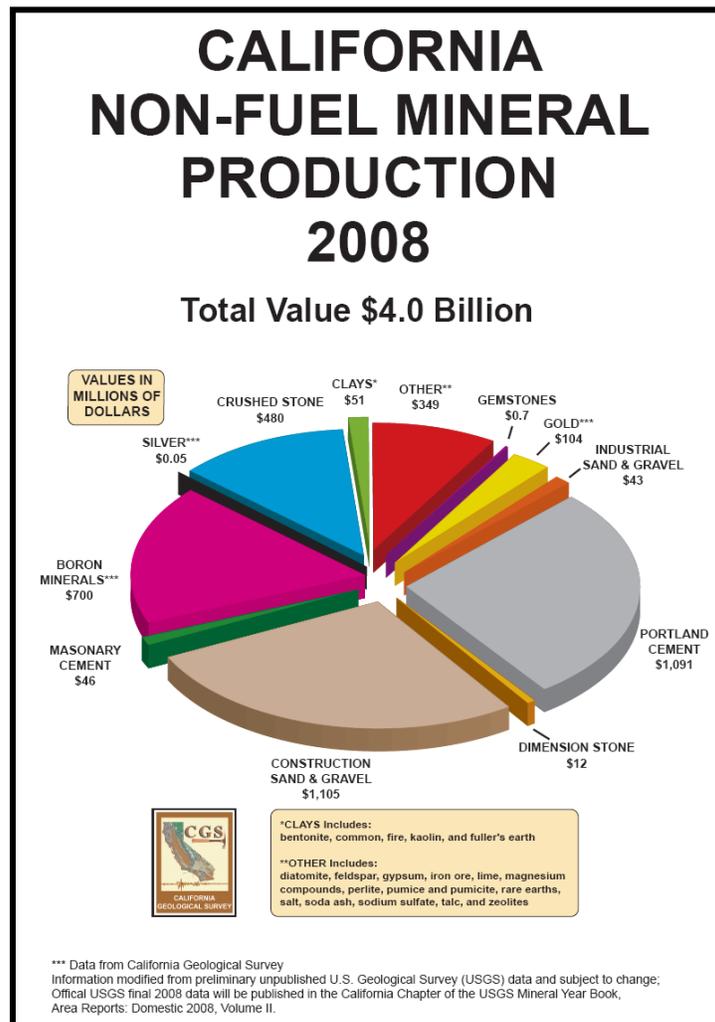


Figure 12. California non-fuel mineral production for 2008.

PROTECTION OF MINERAL LANDS

As California's population continues to grow rapidly, its communities face increasingly difficult and complex land use decisions. The production of mineral resources -- so necessary to support an expanding population -- must compete with other land uses such as agriculture, timber forests, urban development, 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 2006, CGS updated its Aggregate Availability in California – Map Sheet 52. This map and accompanying text provides general information about the current availability of California's permitted aggregate resources. Map Sheet 52 (2006) is an update of the original version published in 2002 (Kohler, 2002), and summarizes data from reports compiled by CGS for 31 aggregate study areas throughout the State. These study areas cover about 25 percent of the State and provide aggregate for about 90 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 2006 Map Sheet 52 to the original 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 highlights regions where there are less than 10 years of permitted aggregate supply remaining.

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 and shopping centers. In 2005, California consumed about 235 million tons of construction aggregate or about 6.6 tons per person. 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:

- About 32 percent of the total projected 50-year aggregate demand identified for the 31 study areas is currently permitted.
- Only six percent of the total aggregate resources identified within the 31 study areas are currently permitted.
- California currently has about 4.3 billion tons of permitted resources identified in the 31 study areas shown on Map Sheet 52.

- In the next 50 years, California will need approximately 13.5 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.
- Four of the updated aggregate study areas are projected to have less than ten years of permitted aggregate resources remaining as of January 2006.
- Ten of the updated aggregate study areas show less than 25 percent of the aggregate resources to meet the projected 50-year aggregate demand.
- About one-half (16) of the updated aggregate study areas show that 25 to 50 percent of the aggregate resources are available to meet the 50-year aggregate demand.
- Three (one tenth) of the updated aggregate study areas show between 50 and 75 percent of the aggregate resources are available to meet the 50-year aggregate demand.
- One study area shows between 75 and 100 percent of the aggregate resources to be available to meet its 50-year aggregate demand.
- Only one of the study areas has adequately permitted aggregate resources to meet or exceed its projected 50-year demand. The 2002 map showed six areas.

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.

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.”

California Mineral Resources Management Program

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. The Mineral Resource

Management Policies review and recognition program is not working well and the compliance rate, while not well documented, may be as low as 4 percent to 19 percent, which is unacceptable. The CEQA review and comment program within SMGB is currently not effectively functioning and documents are not regularly reviewed. If the latter two programs are to regain their effectiveness, significant changes and additional resources are required.

Mining Ordinances

All SMARA lead agencies must have adopted mining ordinances certified by the SMGB. A summary of mining ordinances certified by the SMGB is presented in Table 5. No new mining ordinances were considered for certification by the SMGB during the 2009-2010 reporting period.

Table 5 SMGB Certified Surface Mining and Reclamation Ordinances					
LEAD AGENCY	CITY OR COUNTY	LATEST CERT. DATE	SMGB CERTIFICATION DATE	SMGB RESOLUTION NUMBER	ORDINANCE NUMBER
Hayward	City	2004	11/15/04	Resolution 2004-09	Ordinance No. 04-12
Los Angeles	City	2000	7/13/00	Resolution 2000-06	Ordinance No. 173106
Mammoth Lakes	City	2001	5/10/01	Resolution 2001-05	Ordinance No. 01-02
Oakland	City	2003	6/19/03	Resolution 2003-02	Ordinance No. 12496
Oxnard	City	2001	10/11/01	Resolution 2001-06	Ordinance No. 2579
Pacifica	City	2006	5/12/06	Resolution 2006-03	Ordinance Nos. 670-C.S. and 711-C.S.
Poway	City	2004	11/15/04	Resolution 2004-11	Ordinance No. 609
Rancho Cordova	City	2004	7/23/04	Resolution 2004-06	Ordinance No. 22-2004
San Bernardino	City	2000	12/14/00	Resolution 2000-14	Ordinance No. MC-1084
San Diego	City	2000	7/13/00	Resolution 2000-05	Ordinance No. 18802
San Jacinto	City	2004	12/9/04	Resolution 2004-12	Ordinance No. 04-08
Tracy	City	2000	11/9/00	Resolution 2000-12	Articles 37 and 38 of the City Code
Truckee	City	2001	1/11/01	Resolution 2001-01	Ordinance No. 2000-04
Colusa	County	2003	9/11/03	Resolution 2003-04	Ordinance No. 659
Contra Costa	County	2000	7/13/00	Resolution 2000-08	Ordinance No. 2000-18
Glenn	County	2005	5/12/05	Resolution 2005-05	Ordinance Nos. 1083 and 1171
Lake	County	2000	7/13/00	Resolution 2000-07	Ordinance No. 2533
Madera	County	2006	12/14/06	Resolution 2006-10	Ordinance No. 525G
Modoc	County	2000	1/14/00	Resolution 99-48	Ordinance No. 236-85
Santa Clara	County	2000	12/14/00	Resolution 2000-13	Ordinance No. 1200.299
Yolo	County	2001	12/13/01	Resolution 2001-08	Ordinance No. 1276

Mineral Resource Management Policies (MRMP)

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 2010 is presented in Table 6.

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. At its regular business meeting held on November 12, 2009, the SMGB recognized the MRMP for the County of Mendocino. The County of Mendocino is one of the larger mining counties in California. Its primary commodity is sand and gravel. The County has about 59 mines within its jurisdiction, of which about 33 are currently active, 13 closed with no intent to resume mining, 8 certified closed, and 5 noted as idle.

Table 6 Summary of SMGB Recognized MRMP July 2000 - June 2010				
Lead Agency	MRMP Submittal Date	Recognition Date	SMGB Resolution Number	MRMP Document
City				
Claremont	August 2, 2006	December 14, 2006	2006-10	General Plan, Mineral Resources
Goleta	May 31, 2006	September 14, 2006	2006-07	
Irwindale	May 2008	December 11, 2008	2008-08	2020 General Plan, Section 5, Resource Management Element
Santa Clarita	July 19, 2006	Not recognized		
Truckee	May 16, 2006	September 14, 2006	2006-08	
County				
El Dorado	January 24, 1995; April 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	August 11, 2004	October 14, 2004		2.6 Natural Systems Element
Mendocino	August 17, 2009	November 12, 2009		Chapter 4: Resources Management Element, Mineral Resources Policies (pages 4-44 and 4-45 of the Updated General Plan).

**Table 6 (Continued)
Summary of SMGB Recognized MRMP
July 2000 - June 2010**

Lead Agency	MRMP Submittal Date	Recognition Date	SMGB Resolution Number	MRMP Document
County				
Merced	November 8, 2001	February 14, 2002		
Nevada	February 26, 2003	May 23, 2003		Nevada County General Plan Final Draft, September 1995, Chapter 17: Mineral Management
Sacramento	May 2008	September 11, 2008	2008-05	General Plan Conservation Element, Section II, Mineral Resources, and Section IV, Soil Resources

Classification Petitions

During the 2009-2010 reporting period, the SMGB considered two mineral classification petitions that were subsequently accepted and classification reports prepared by CGS. One was a revision of mineral land classification for the First Trust Day Street Project, located in Riverside County. The other was for classification of mineral lands for the Wilson Ranch-Walltown Quarry Project, Sacramento County. These petitions, along with those accepted since July 2000, are summarized in Table 7, and discussed below.

First Industrial Realty Trust Day Street Project, Riverside County: On behalf of First Industrial Realty Trust, TerraMins, Inc. submitted a petition to the SMGB dated August 6, 2008, for mineral land classification of the proposed Day Street project area located in Riverside County. The project consists of about 500 acres located north of the City of Perris, Riverside County. The project area is situated near urban development, and urban encroachment may constitute a threat to the intended mining of the mineral resources on the property.

A portion of the site has been historically mined for curbing stone, but the site has been idle for many years. The property currently is classified as a Mineral Resource Zone (MRZ) 3a for Portland cement concrete (PCC) - grade aggregate in accordance with CGS's Special Report 165. The petitioner requested that this area be reclassified as MRZ-2a and MRZ-2b, for PCC-grade aggregate.

The petition application was reviewed by CGS's Minerals Resource Unit staff using revised criteria for consideration of petitions adopted in 1994 by the SMGB. Based on this preliminary review, the State Geologist recommended acceptance of the petition by the SMGB. The SMGB accepted the petition at its December 11, 2008, regular business meeting.

The State Geologist subsequently investigated and re-classified mineral resources for this project, from MRZ-3 to MRZ-2 for PCC-grade aggregate, as documented in CGS Special Report 212. The following conclusions were reported:

- Aggregate test results provided by the petitioner and analyzed by CGS staff indicated that the material present on the site meets the specification for use in PCC.
- Aggregate resources present at the site exceed the minimum threshold value of \$16,666,000 million (2007 dollars) established by the SMGB.
- The 500 acres comprising the First Industrial Realty Trust Day Street Site has been reclassified from MRZ-3 to MRZ-2 for PCC-grade aggregate.

Table 7 Mineral Lands Classification Petitions Received from July 2000 through June 2010		
Geographical Area	Date	Petition Request
Alameda County	9/22/05	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	9/22/05	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	11/10/05	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	12/11/08	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	4/9/09	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	9/11/09	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	3/11/10	Acceptance of a Petition for Classification of Mineral Lands, Wilson Ranch-Walltown Quarry Project, Sacramento County, California.

The SMGB accepted CGS's Special Report 212, titled "*Mineral Land Classification of the First Industrial Realty Trust Day Street Site, Riverside County, California for Portland Cement Concrete-Grade Aggregate,*" at its regular business meeting held on April 9, 2009.

Following acceptance of CGS's Special Report 212, the petitioner recognized that two parcels, totaling 80 acres, were inadvertently excluded. The petition and accompanying map indicated the 80 acres relevant to this petition consideration, as well as the lands that were previously classified per CGS Special Report 212. The petition for a revision to the mineral land classification was dated June 5, 2009, and at its July 9, 2009, regular business meeting, the SMGB accepted the petition.

The State Geologist subsequently investigated and revised the classified mineral lands for the First Industrial Realty Trust Day Street Site, Riverside County, from MRZ-3 to MRZ-2 for PCC-grade aggregate, as documented in CGS Special Report 212. The following conclusions were reported:

- Aggregate test results provided by the petitioner and analyzed by CGS staff indicated that the material present on the site meets the specification for use in PCC-grade aggregate.
- Aggregate resources present at the site exceed the minimum threshold value of \$17,380,000 million (2008-dollars) established by the SMGB.
- The approximately 577 acres comprising the First Industrial Realty Trust Day Street Site has been reclassified from MRZ-3 to MRZ-2 for PCC-grade aggregate.

At its September 11, 2009, regular business meeting, the SMGB accepted the CGS Classification Special Report 212/Revised.

Wilson-Ranch – Walltown Quarry Project, Sacramento County: At its March 11, 2010, regular business meeting, the SMGB considered acceptance of CGS's Special Report 214 on Classification of Mineral Lands, Wilson Ranch-Walltown Quarry Project, Sacramento County, California. On behalf of Angelo and Katherine Tsakopoulos, the SMGB received a petition for mineral lands classification from Mr. Kerry Shapiro, legal counsel with Jeffer, Mangels, Butler, & Marmaro, LLP, dated May 13, 2009, for mineral land classification of the proposed Wilson Ranch-Walltown Quarry Project, located in the County of Sacramento (Figure 13). The site consisted of about 1,360 acres located approximately 6 miles south-southeast of the City of Folsom in eastern Sacramento County. The property is currently classified as a Mineral Resource Zone 3 (MRZ-3) for PCC-grade aggregate per CGS *Open-File Report 99-09*. The petitioner requested that the State Geologist reclassify the property as MRZ-2 for PCC-grade aggregate.

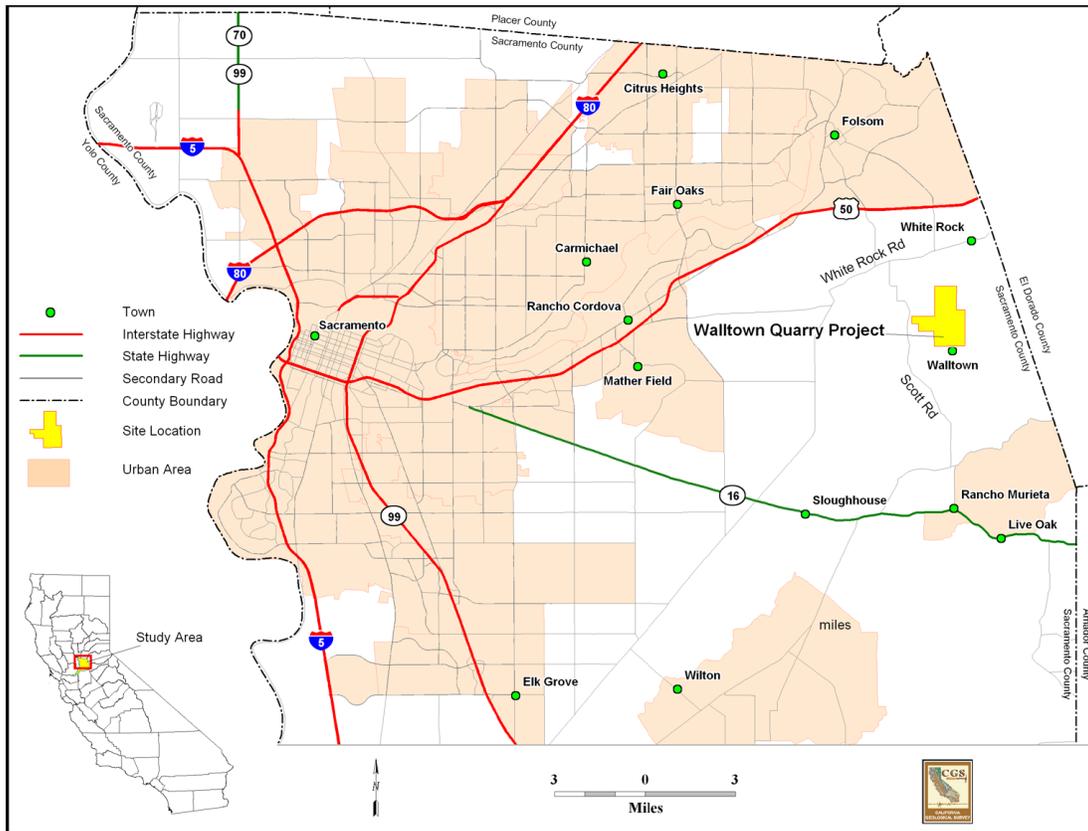


Figure 13. Location of the Wilson Ranch – Walltown Quarry Site

The petition application was reviewed by the CGS Minerals Resources Unit using the revised criteria for consideration of petitions, which were adopted by the SMGB in May 1994. At its July 9, 2009, regular business meeting, the SMGB accepted the petition, based on recommendations from the State Geologist. Located about 6 miles south – southeast of the City of Folsom, commercial/residential development is slowly encroaching on the proposed quarry site from the north-northeast direction. This urban encroachment constitutes a potential threat to the intended mining of the mineral resources on the property.

The following conclusions as set forth in CGS Special Report 214 were made:

- Aggregate test results provided by the petitioner and analyzed by CGS staff indicate that the material present on the Wilson Ranch – Walltown Quarry site meet the specifications for a variety of construction aggregate uses up to and including PCC-grade aggregate.
- Aggregate resources present at the Wilson Ranch – Walltown Quarry site exceed the minimum threshold value of \$17.11 million 2009-dollars established by the SMGB.
- Approximately 414 acres of the 1,346-acre Wilson Ranch – Walltown Quarry site were reclassified MRZ-2 from MRZ-3 for construction aggregate (Figure 14).

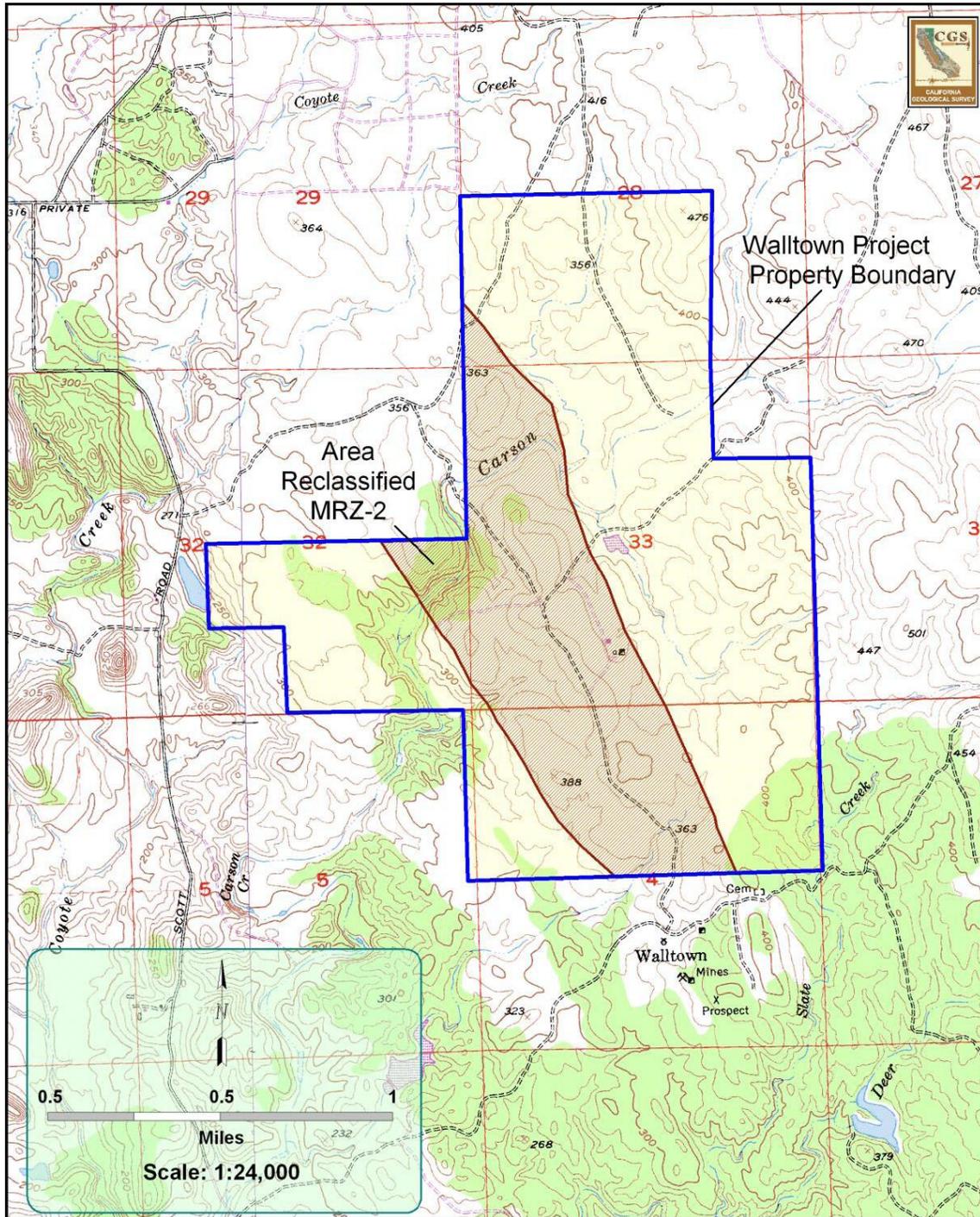


Figure 14. Mineral Land Classification of the Wilson Ranch – Walltown Quarry Site for construction aggregate.

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. An updated Mineral Land Classification Map for PCC-grade aggregate in the San Bernardino Production-Consumption (P-C) Region is shown in Figure 15.

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. Sixteen classification reports were completed between July 2000 and June 2010 (Table 8). Two new classification reports were completed and subsequently accepted by the SMGB during the 2009-2010 reporting period.

Table 8 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

**Table 8 (Continued)
Summary of Classification Reports
Accepted by the SMGB since 2000**

Geographical Area	CGS Report No.	Title	Classified Acres	Date Accepted by SMGB
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
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
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

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

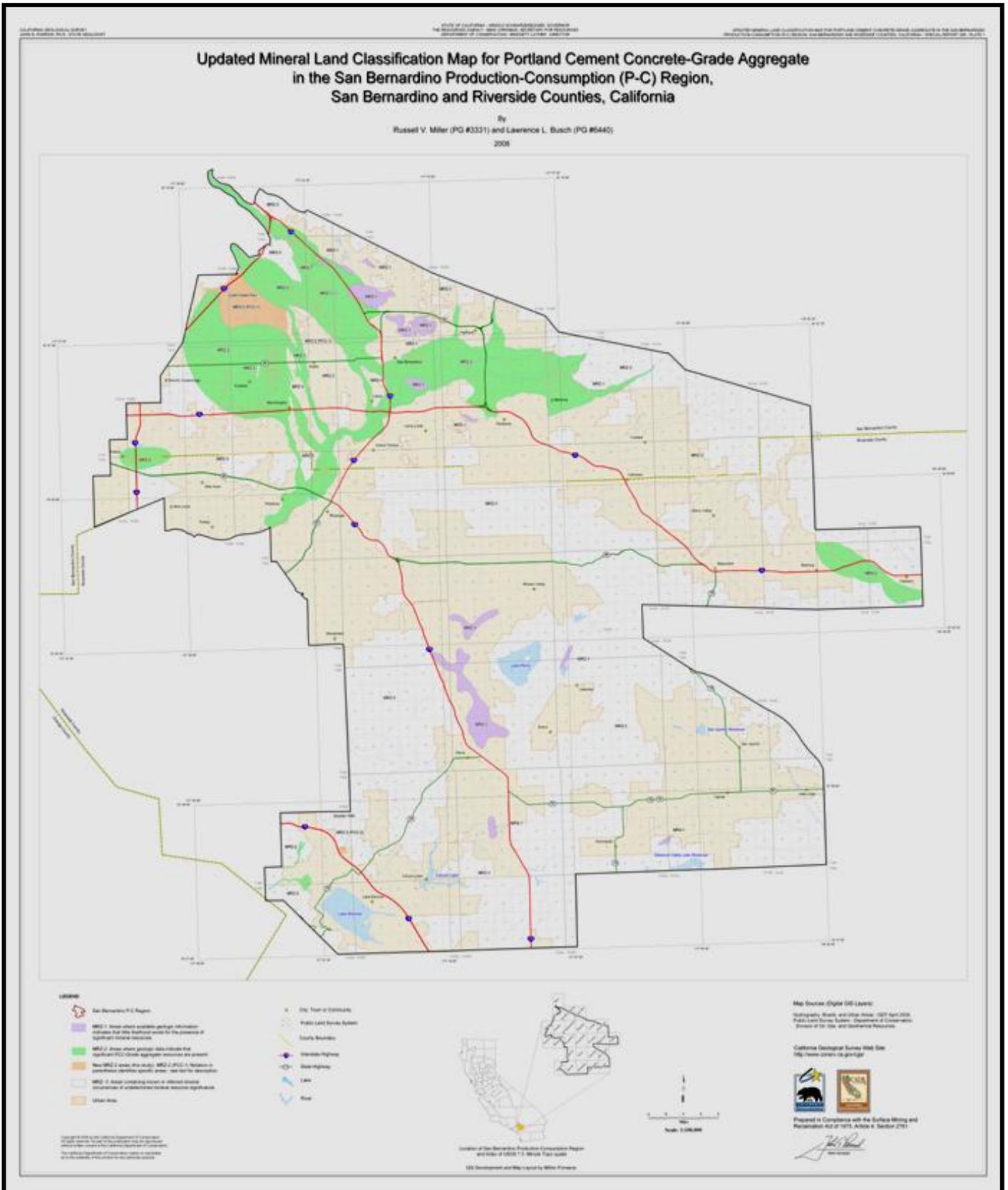


Figure 15. Updated Mineral Land Classification Map for Portland Cement Concrete-Grade Aggregate in the San Bernardino Production-Consumption (P-C) Region.

California Geological Survey Special Report 210 for Update of Mineral Land Classification, Aggregate Materials in the Bakersfield Production-Consumption Region, Kern County, California: The SMGB, in the fall of 2006, and more recently at its June 14, 2007 Regular Business Meeting, heard a report from SMGB staff on the Mineral Land Classification and Designation Program under the Surface Mining and Reclamation Act of 1975 (SMARA). At its September 13, 2007 Regular Business Meeting, CGS provided a schedule and prioritized program of current and planned activities for mineral land classification and associated projects. The update of the report for the Bakersfield P-C Region was considered by CGS as a priority.

The updated report presents the following conclusions:

- The permitted reserves are projected to last until the year 2031, 22 years from present (2009).
- An additional 2,456 acres of land containing an estimated 442 million tons of reserves are identified in areas adjacent to the Bakersfield P-C Region.
- The anticipated consumption of aggregate in the Bakersfield P-C Region for the next 50 years (through the year 2058) is estimated to be 467 million tons, of which 224 million tons must be PCC quality. This is more than twice the previous 50-year projection.
- The estimated 4,279 million tons of unpermitted PCC-grade aggregate resources are recognized in the Bakersfield P-C Region and adjacent areas.

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 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 have received mineral Designation status from the SMGB.

Acceptance of Recommendations for Designation of Mineral Lands for Aggregate Materials in the Bakersfield Production-Consumption Region, Kern County, California. At its October 8, 2009, regular business meeting, the SMGB accepted CGS Special Report 210 titled “*Update of Mineral Land Classification, Aggregate Materials in the Bakersfield P-C Region, Kern County, California*” (Busch, 2009). This report updated information on portland cement concrete (PCC) aggregate in the original classification study of the Bakersfield Production -Consumption Region published in 1988 by CGS as Special Report 147 titled “*Mineral Land Classification: Aggregate Materials in the Bakersfield Production-Consumption Region, Riverside County, California*” (Cole, 1988).

Special Report 147 identified 19,491 acres of land containing approximately 5.3 billion tons of PCC-grade aggregate resources. The reevaluation and update in Special Report 210 identified 20,193 acres of land containing an estimated 4.4 billion tons of PCC-grade aggregate resources; this includes an additional 2,456 acres of newly identified land containing an estimated 442 million tons of PCC-grade resources in areas adjacent to the Bakersfield P-C Region (Sectors I, J and K). The areas are identified as Candidate Sectors A through K (in 62 individual sectors and sub-sectors).

The publication of Special Report 147, and its update Special Report 210, accomplished part-one of the two-part *Classification-Designation process*. Part-two of the two-step process, designation, is the formal recognition by the SMGB of lands containing mineral resources of regional or statewide economic significance needed to meet the demands of the future. In the years since the original publication of Special Report 147, the designation process has not yet been completed.

The State Geologist recommended several candidates, or areas, which meet or exceed the SMGB’s threshold economic value, thus, each area may be considered for designation as an area of regional or statewide significance by the SMGB. These areas include candidate Sectors A through K (and their subsectors) as lands containing construction aggregate resources of regional or statewide significance.

CANDIDATE AREAS FOR DESIGNATION: The candidate areas for designation are shown in Figures 16a and 16b. A description of each candidate Sector is summarized on Table 9.

California Geological Survey Candidate Areas for Designation in Bakersfield Production-Consumption (P-C) Region, Kern County, California, Northern Area

By
Lawrence L. Branch (PG 6440)
2009

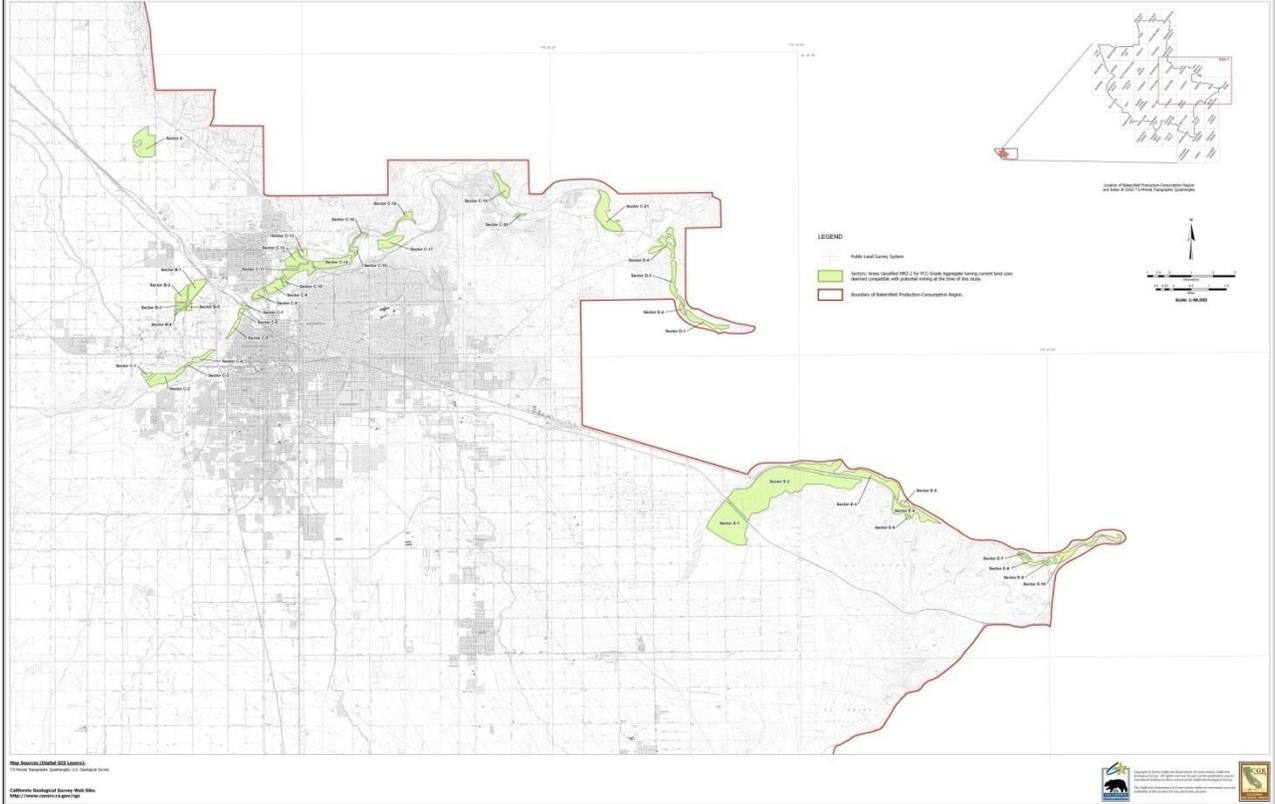


Figure 16a. Candidate Areas for Designation in the Bakersfield Production-Consumption (P-C) Region, Kern County California, Northern Area.

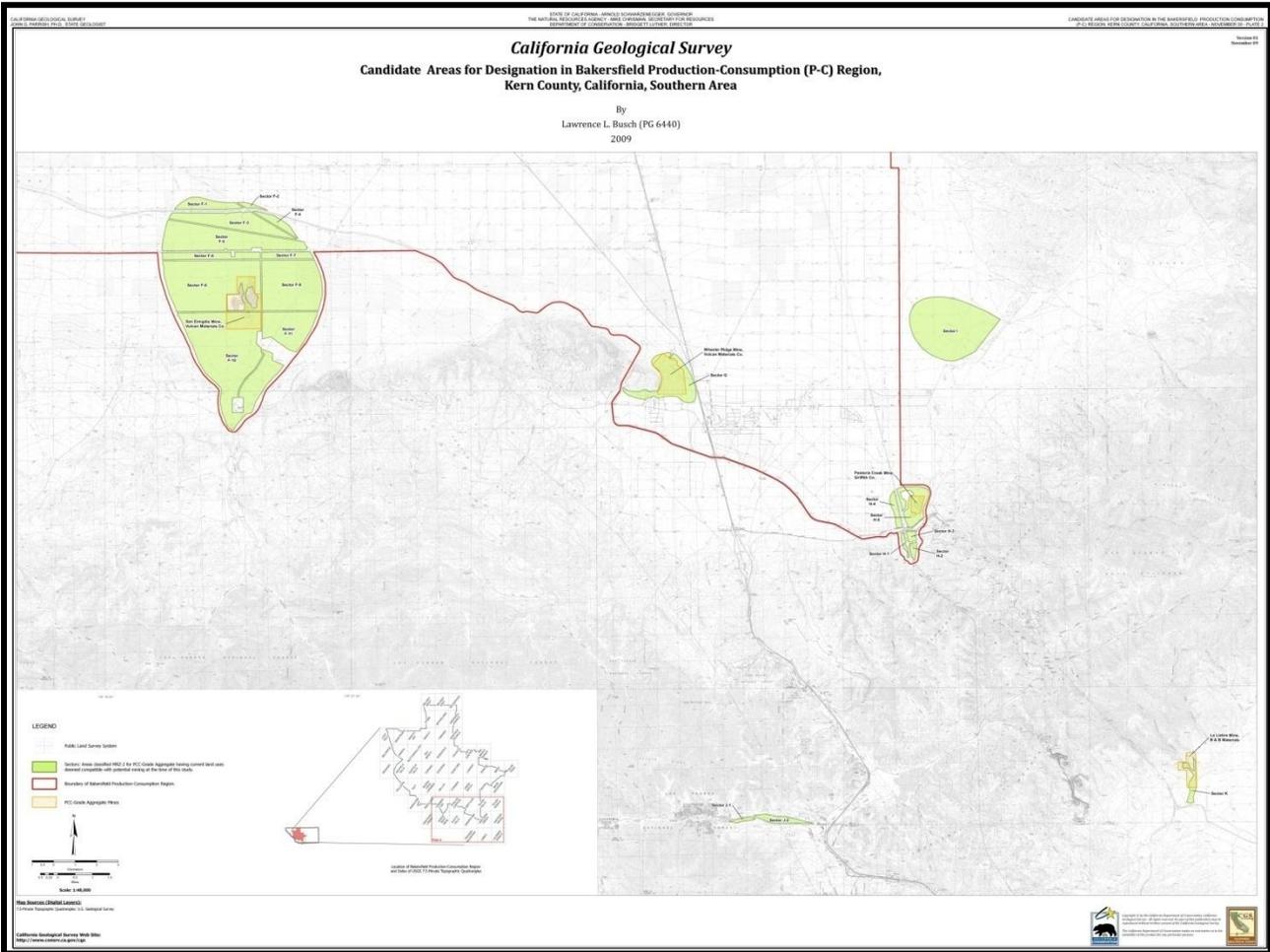


Figure 16b. Candidate Areas for Designation in the Bakersfield Production-Consumption (P-C) Region, Kern County California, Southern Area.

**Table 9
Tabulated List of Candidate Sectors**

Sector	Acres	Location	Lead Agency
A	247	Sections 28 and 29, T28S, R27E, MDBM. North of Bakersfield, west of State Route 65, south of James Rd.	Kern County
B-1	108	Sections 14 and 15, T29S, R27E, MDBM. Northwest of Bakersfield, north of State Route 58 and west of Highway 99.	City of Bakersfield, Kern County
B-2	70	Section 15, T29S, R27E, MDBM. West of Highway 99 and north of State Route 58.	City of Bakersfield
B-3	24	Section 22, T29S, R27E, MDBM. West of Highway 99 and north of State Route 58.	City of Bakersfield
B-4	14	Section 22, T29S, R27E, MDBM. West of Highway 99 and north of State Route 58.	City of Bakersfield
B-5	15	Section 22, T29S, R27E, MDBM. West of Highway 99 and north of State Route 58.	Kern County
C-1	20	Sections 33, T29S, R27E, MDBM. North of Kern River. West of Highway 99 and south of State Route 58.	City of Bakersfield
C-2	149	Sections 27, 33 and 34, T29S, R27E, MDBM. Kern River. West of Highway 99 and south of State Route 58.	City of Bakersfield
C-3	8	Sections 27, T29S, R27E, MDBM. Kern River. West of Highway 99 and south of State Route 58.	City of Bakersfield
C-4	51	Sections 26 and 27, T29S, R27E, MDBM. Kern River. West of Highway 99 and south of State Route 58.	City of Bakersfield
C-5	36	Sections 23, 24 and 26, T29S, R27E, MDBM. Kern River. East of Highway 99 and west of State Route 204.	City of Bakersfield
C-6	18	Section 24, T29S, R27E, MDBM. Kern River. East of Highway 99 and west of State Route 204.	City of Bakersfield
C-7	14	Sections 13 and 24, T29S, R27E, MDBM. Kern River. East of State Route 204 and west of Chester Ave.	City of Bakersfield
C-8	46	Sections 13, T29S, R27E, MDBM, and Section 18, T29S, R28E, MDBM Kern River. East of State Route 204 and west of Chester Ave.	City of Bakersfield
C-9	85	Section 18, T29S, R28E, MDBM. Kern River. East of Chester Avenue and west of Manor St.	City of Bakersfield
C-10	15	Section 18 T29S, R28E MDBM. Kern River. East of Chester Avenue and west of Manor St.	City of Bakersfield
C-11	124	Sections 8, 17 and 18, T29S, R28E, MDBM. Kern River. East of Manor St.	City of Bakersfield, Kern County
C-12	104	Section 7 and 8, T29S, R28E, MDBM. North of Kern River. East of Manor St.	Kern County
C-13	26	Section 8, T29S, R28E, MDBM. North of Kern River. East of Manor St.	Kern County

**Table 9
Tabulated List of Candidate Sectors**

Sector	Acres	Location	Lead Agency
C-14	163	Sections 8, 9, 16 and 17, T29S, R28E, MDBM. Kern River. East of Manor St.	City of Bakersfield, Kern County
C-15	32	Section 9, T29S, R28E, MDBM. Kern River. East of Manor St.	City of Bakersfield, Kern County
C-16	12	Section 9, T29S, R28E, MDBM. Kern River. West of China Grade Bridge.	City of Bakersfield
C-17	101	Section 10, T29S, R28E, MDBM. South of Kern River. North of Alfred Harrell Highway.	Kern County
C-18	70	Sections 2, 3 and 10, T29S, R28E, MDBM. Kern River. South of Round Mountain Rd.	City of Bakersfield, Kern County
C-19	80	Sections 36, T28S, R28E, MDBM, Section 31, T28S, R29E, MDBM, and Section 6, T29S, R29E, MDBM. Northeast of Kern River. East of Hart Memorial Park.	Kern County
C-20	11	Section 5, T29S, R29E, MDBM. South of Kern River. North of Alfred Harrell Highway.	Kern County
C-21	253	Sections 33 and 34, T28S, R29E, MDBM, and Sections 2, 3, 10 and 11, T29S, R29E, MDBM. North of Kern River. East of Kern River Golf Course.	City of Bakersfield, Kern County
D-1	105	Sections 19 and 20, T29S, R30E, MDBM. Cottonwood Creek. South of Breckenridge Road.	Kern County
D-2	19	Section 24, T29S, R29E, MDBM. Cottonwood Creek. South of Breckenridge Road.	Kern County
D-3	101	Sections 12, 13 and 24, T29S, R29E, MDBM. Cottonwood Creek. South of State Route 178.	City of Bakersfield, Kern County
D-4	131	Sections 1, 11 and 12, T29S, R29E, MDBM. Cottonwood Creek. South of State Route 178, north of Breckenridge Road.	City of Bakersfield
E-1	572	Sections 17, 18, 19 and 20, T30S, R30E, MDBM. Caliente Creek. South of State Route 58.	Kern County
E-2	1330	Sections 9, 10, 14, 15, 16, 17, 20 and 21, T30S, R30E, MDBM. Projected – Rancho El Tejon. Caliente Creek, north of State Route 58.	Kern County
E-3	357	Sections 9, 10, 11, 12, 13 and 14, T30S, R30E, MDBM. Projected – in Rancho El Tejon. Caliente Creek, north of Bena Road.	Kern County
E-4	171	Sections 13 and 24, T30S, R30E, MDBM, and Sections 18, 19 and 20, T30S, R31E, MDBM. Projected – in Rancho El Tejon. Caliente Creek, north of Bena Road.	Kern County
E-5	18	Sections 13, T30S, R30E, MDBM, and Section 18, T30S, R31E, MDBM. Projected – in Rancho El Tejon. Caliente Creek, north of Bena Road.	Kern County

**Table 9
Tabulated List of Candidate Sectors**

Sector	Acres	Location	Lead Agency
E-6	8	Section 19, T30S, R31E, MDBM. Projected – in Rancho El Tejon. Caliente Creek south of Bena Road.	Kern County
E-7	11	Section 27, T30S, R31E, MDBM. Caliente Creek west of Caliente.	Kern County
E-8	45	Section 27, T30S, R31E, MDBM. Caliente Creek west of Caliente.	Kern County
E-9	24	Section 26, T30S, R31E, MDBM. Caliente Creek south of Caliente.	Kern County
E-10	149	Sections 24, 25 and 26, T30S, R31E, MDBM, and Section 19, T30S, R32E, MDBM. Caliente Creek east of Caliente.	Kern County
F-1	289	Sections 34, 35, and 36, T12N, R22W, SBBM, and Sections 1, 2 and 3, T11N, R22W, SBBM. San Emigdio Creek. North of California Aqueduct.	Kern County
F-2	44	Section 36, T12N, R22W, SBBM, Section 6, T11N, R21W, SBBM, and Section 1, T11N, R22W, SBBM. San Emigdio Creek. North of California Aqueduct.	Kern County
F-3	782	Sections 1, 2 and 3, T11N, R22W, SBBM, and Section 5 and 6, T11N, R21W, SBBM. San Emigdio Creek. South of California Aqueduct, north of State Route 166.	Kern County
F-4	142	Sections 1, T11N, R22W, SBBM, and Sections 5 and 6, T11N, R21W, SBBM. San Emigdio Creek. South of California Aqueduct, north of State Route 166.	Kern County
F-5	1,468	Sections 1, 2, 3, 10, 11 and 12, T11N, R22W, SBBM and Sections 5, 6, 7 and 8, T11N, R21W, SBBM. San Emigdio Creek. South of California Aqueduct, north of State Route 166.	Kern County
F-6	347	Sections 10, 11 and 12, T11N, R22W, SBBM. San Emigdio Creek. South of State Route 166.	Kern County
F-7	183	Sections 7 and 8, T11N, R21W, SBBM. San Emigdio Creek. South of State Route 166.	Kern County
F-8	2,254	Sections 10, 11, 12, 13, 14 and 15, T11N, R22W, SBBM. San Emigdio Creek. South of State Route 166.	Kern County
F-9	1,566	Sections 7, 8, 17 and 18, T11N, R21W, SBBM. San Emigdio Creek. South of State Route 166.	Kern County
F-10	3,356	Sections 22, 23, 24, 25, 26, 35 and 36, T11N, R22W SBBM, Sections 30 and 31, T11N, R21W, SBBM and Sections 1 and 2 T10N, R22W SBBM. San Emigdio Creek. South of State Route 166.	Kern County
F-11	840	Sections 19, 20, 29 and 30, T11N, R21W, SBBM. San Emigdio Creek. South of State Route 166.	Kern County
G	882	Sections 25, 35, 36, T11N, R20W, SBBM, and Sections 30 and 31 T11N, R19W SBBM. Wheeler Ridge. West of Highways I-5 and 99.	Kern County

**Table 9
Tabulated List of Candidate Sectors**

Sector	Acres	Location	Lead Agency
H-1	35	Sections 18 and 19, T10N, R18W, SBBM. Projected – in Rancho El Tejon. Pastoria Creek, south of California Aqueduct and Edmonston Pumping Plant Road.	Kern County
H-2	48	Section 19, T10N, R18W, SBBM Projected – in Rancho El Tejon. Pastoria Creek, south of California Aqueduct and Edmonston Pumping Plant Road.	Kern County
H-3	47	Sections 18 and 19, T10N, R18W, SBBM, Projected – in Rancho El Tejon. Pastoria Creek, south of California Aqueduct and Edmonston Pumping Plant Road.	Kern County
H-4	108	Sections 12 and 13 T10N, R19W, SBBM, and Section 18, T10N, R18W, SBBM. Projected – in Rancho El Tejon. Pastoria Creek, north of California Aqueduct and Edmonston Pumping Plant Road.	Kern County
H-5	409	Sections 12 and 13, T10N, R19W, SBBM, and Sections 7 and 18, T10N, R18W, SBBM. Projected – in Rancho El Tejon. Pastoria Creek, north of California Aqueduct and Edmonston Pumping Plant Road.	Kern County
I	2,151	Sections 16, 17, 18, 19, 20, 21, 28, 29 and 30, T11N R18W, SBBM. El Paso Creek. East of Rancho Drive, south of Sebastian Road.	Kern County
J-1	35	Sections 31 and 32, T9N, R19W, SBBM. Cuddy Creek. East of Frazier Park, south of Frazier Mountain Park Road, west of Highway I-5.	Kern County
J-2	145	Sections 32 and 33, T9N, R19W, SBBM. Cuddy Creek. East of Frazier Park, north of Frazier Mountain Park Road, west of Highway I-5.	Kern County
K	125	Sections 29 and 32, T9N, R17W, SBBM. La Liebre Ranch, Little Sycamore Canyon.	Kern County

ROLES OF OFFICE OF MINE RECLAMATION (OMR)

In 1991 the DOC created the Office of Mine Reclamation (OMR) to administer the provisions of SMARA for the DOC. OMR is divided into three units: the Reclamation Unit, the Compliance and Reporting Unit and the Abandoned Mine Lands Unit. 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; and
- Recommend to the Director enforcement actions against surface mine operators who do not comply with SMARA.

OMR's Reclamation Unit reviews reclamation plans and plan amendments submitted by lead agencies. 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's Reclamation Unit 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.

OMR's Reporting and Compliance Unit is responsible for the review and processing of annual reports and collection of mining fees. When surface mine operators do not provide reports, fees, reclamation plans and financial assurances as required by SMARA (and PRC Section 2207), this 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.

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 furnished by the SMGB. 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 fees to the DOC for operations conducted during calendar year 1990.

Annual 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. OMR mails annual report forms to each reporting mining operation during May of each year. Reports must be postmarked on or before July 1 of that year. Annual reporting forms were revised and implemented in 2007.

The number of reporting mines per year since 1990 is shown in Table 10. Because Annual Reports are filed with OMR by July 1st for the previous calendar year, the number of reporting mines is not available for calendar year 2010 at the time this report was prepared. The figures for the 2009 reports are as of the date of publication, and do not reflect all mines that will eventually report and pay fees for the year.

OMR's Reporting Unit is responsible for the review and processing of annual reports and mining fees. In July 2010 this unit processed 1,070 Annual Reports filed for calendar year 2009. In

addition, mine fees in the amount of \$5,651,848.69 were authorized for collection to run the DOC and SMGB's SMARA programs; whereas, \$3,277,273 was paid during the 2010/11 fiscal year.

Table 10 Summary of Number of Reporting Mines from 1990 through 2009	
Reporting Year	Number of Mines
1990	856
1991	1,079
1992	1,154
1993	1,185
1994	1,274
1995	1,290
1996	1,332
1997	1,326
1998	1,470
1999	1,348
2000	1,444
2001	1,424
2002	1,412
2003	1,385
2004	1,359
2005	1,365
2006	1,346
2007	1,333
2008	1,224
2009	1,070

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 109 lead agencies: 57 counties, 50 cities, and the SMGB.

The 57 counties that serve as lead agencies contain from 4 to 117 mine sites within their jurisdiction, and average about 27 mine sites per county. The 50 cities that serve as lead agencies contain from 1 to 35 mine sites within their jurisdiction, and average about 3 mine sites per city. As a lead agency, the SMGB has assumed SMARA authority from two counties (El Dorado County and Yuba County), 10 cities that have not adopted mining ordinances, and 12 BCDC sites.

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 lead agencies are diligent in their reviews and approvals of reclamation plans in accordance with SMARA and the SMGB's regulations; 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.

As noted above, since 2002, the SMGB has exercised its assumption of lead agency authority for two counties, and by default 10 cities, and 12 marine dredging operations. 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 is poor, reflecting a number of factors, including primarily financial constraints, and limited or absent technical expertise.

The SMGB has not yet exercised its assumption authority since publication of this statewide evaluation. During the 2009-2010 reporting period, the SMGB reviewed the overall performance of the County of Sierra and the City of Lake Elsinore.

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 requires each lead agency (City, County, or City and County) to have a surface mining and reclamation ordinance that is in accordance with the statute. To ensure ordinances are in compliance, the SMGB has authority to review and certify these local ordinances that meet SMARA requirements. As of July 1, 2007, there are 109 SMARA lead agencies in the State.

SMARA requires that lead agencies periodically revise these ordinances to keep them in accordance with legislative changes. The SMGB is required to re-certify these ordinances before they become effective. From January 2000 through December 2006, the SMGB reviewed and re-certified updated SMARA ordinances for 13 cities and eight counties as summarized in Table 5. No new ordinances required certification by the SMGB during the 2009-2010 reporting period.

Enforcement Actions

Order to Comply Appeals

When the Director of the DOC issues an Order 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. One Order to Comply was issued by OMR during the 2009-2010 reporting period. The Order to Comply was issued to the New Era Mine (CA Mine ID #91-04-0031), David Everett (Agent), North Continental Land & Timber (Operator), County of Butte. The Order to Comply was appealed to the SMGB and the Director's Order was upheld by the SMGB at its April 15, 2010, regular business meeting.

Administrative Penalties Appeals

Between July 2006 and July 2007 the DOC issued 13 Administrative Penalties to surface mine operators for failures to come into compliance with SMARA. During this same period, the SMGB heard appeals from one of the affected operators. No administrative penalties were

issued to a surface mine operator by the DOC during the 2009-2010 reporting period, thus, no appeals were heard by the SMGB.

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 2009-2010 reporting period, six exemption requests were considered by the SMGB. Between July 1999 and July 2010, the SMGB heard twenty (20) such exemption requests (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(d). 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.

Table 11 Summary of SMARA Exemption Requests From July 2000 to June 2010		
Date	City or County	Exemption Request
11/19/00	Fresno County	SMARA Exemption Request, Strahm Engineering, Gegunde Stock Pond, Fresno County
8/16/01	Yuba County	SMARA Exemption Request, Jon Messick, Yuba County
8/16/01	Lassen County	SMARA Exemption Request, Fitch Sand & Gravel, Lassen County
12/13/01	City of Red Bluff	SMARA Exemption Request, Ladd & Associates, Adobe Road-Interchange, City of Red Bluff
7/11/02	Yuba County	SMARA Exemption Request, Baldwin Contracting Company
11/14/02	Yuba County	SMARA Exemption Request Denial, Alice Sohrakoff, Yuba County
4/10/03	Kern County	SMARA Exemption Request, Cactus Mine, Kern County
5/23/03	Yuba County	SMARA Exemption Request, Baldwin Contracting, Yuba County
3/12/04	Kern County	SMARA Exemption Request, B&B Materials, Inc., Kern County
6/10/04	Santa Barbara County	SMARA Exemption Request, Jeff & Shawn Montgomery, Montgomery Family Trust, Lambert Road, Carpinteria, County of Santa Barbara
7/23/04	Kern County	SMARA Exemption Request, Smeed Family Trust, Tehachapi, Kern County

**Table 11 (Continued)
Summary of SMARA Exemption Requests
From July 2000 to June 2010**

Date	City or County	Exemption Request
12/11/08	San Diego	Consideration for Approval of a Request for Exemption from the Requirements of the SMARA Pursuant to Section 2714(f) for the Hester Granite
03/13/08	Mendocino	SMARA Exemption Request, Willits Bypass, Mendocino County
04/09/09	Yuba County	SMARA Exemption Request, Three Rivers Levee Improvement Authority, Yuba County.
11/12/09	Sacramento County	Natomas Urban Development Borrow Site, Sacramento Area Flood Control Agency, Sacramento County.
03/11/10	Kern County	California Vision, Inc., Kern County.
04/15/10	Sacramento County	M & T Ranch, Sacramento County.
04/15/10	Tehama County	Ford Construction, Tehama County.
05/13/10	Imperial County	The California Energy Commission, Imperial County.
06/10/10	Tulare County	Tea Pot Dome Water District, Tulare County.

Natomas Urban Development Borrow Site, Sacramento Area Flood Control Agency, Sacramento County: Shute, Mihaly & Weinberg, LLP., on behalf of the Sacramento Area Flood Control Agency (SAFCA), submitted a request for a one-time exemption from SMARA for removal of borrow material from the Natomas Urban Development Site (NUD Site), located in Sacramento County. The proposed borrow site is located approximately 2000 feet from the relocated Riverside Canal, and is essential for specific improvements to the Natomas Levee and to the Riverside Canal. More than 85,000 cubic yards of materials are anticipated to be extracted from the proposed borrow site which encompasses approximately 20 acres.

The proposed project included improvements to a portion of the perimeter levee system protecting the Natomas Basin in Sacramento and Sutter Counties, and associated landscape and irrigation/drainage infrastructure modifications proposed by SAFCA. The one-time exemption from SMARA request was for an activity associated with this larger project. A Draft Environmental Impact Statement/Draft Environmental Impact Report on the Natomas Levee Improvement Program, Phase 4a Landslide Improvements Project (State Clearinghouse No. 2009032097), dated August 28, 2009, was prepared for the United States Corps of Engineers, Sacramento District, by SAFCA.

Although all required or potentially required permits were not in place, Sacramento County was the lead agency pursuant to SMARA, the local permitting authority, and a member of SAFCA (i.e., the five members of Sacramento County's Board of Supervisors are all members of SAFCA's Board of Directors). Thus, it could be inferred that although the proposed project

activities are not currently permitted, such activities would be authorized, and permitted, as appropriate, by the County prior to conduct of such activities.

The proposed materials to be excavated from the NUD site were proposed to be used solely for the SAFCA's Phase 4a Project. Although the materials to be excavated would not be exported or otherwise interfere with commercial activities, an evaluation or assessment of acceptable materials from existing operators in the vicinity of the site was not provided. For discussion purposes, when the SMGB evaluated a request from Caltrans for a one-time exemption from SMARA for their Willits Bypass project, a demonstration was made by Caltrans that commercial providers and surface mine operators in the vicinity of the proposed project could not provide sufficient materials that met the specific design parameters required for the project. On November 12, 2009, the SMGB denied the request for a one-time exemption from SMARA for the NUD Borrow Site.

Feather River Levee Improvement Project, Yuba County: The SMGB considered a one-time exemption from SMARA for the Three Rivers Levee Improvement Authority (TRILIA) for a portion of their Feather River Levee Improvement Project, located within the County of Yuba. Based on review of a proposed 2008 Reclamation Plan, it was determined by OMR and SMGB staff that several borrow sites associated with the project were deemed onsite excavations and onsite earth moving activities that were an integral and necessary part of the levee construction project, and it was demonstrated that all required permits had been obtained, applicable environmental analyses were completed, and no surplus materials were to be exported from the construction site. Therefore, these borrow pits met all the criteria for an onsite construction exemption pursuant to PRC Section 2714(b)(1) through 2714(b)(4). However, two borrow sites were not considered onsite excavations or onsite earth moving activities, since they were not physically within the project area, or immediately adjacent to the project area, and were determined to be subject to the requirements of SMARA. The SMGB moved that the project as proposed by TRILIA was subject to the requirements of SMARA, and that the SMGB deny a one-time exemption from SMARA for this project under its authority provided by Public Resources Code Section 2714(f). At its July 9, 2009, regular business meeting, the SMGB subsequently approved a reclamation plan and financial assurance cost estimate for both of the 'non-exempt' sites.

California Vision, Inc., Kern County: California Vision, Inc. submitted a request for a one-time exemption from SMARA for the conduct of geologic testing in advance of completing a SMARA application in order to determine the commercial viability of a proposed mine located in Kern County (Figure 17). The proposed project is situated on Bureau of Land Management (BLM) land, and is for extraction of amorphous silica. BLM would serve as the lead agency for the Plan of Operations and /or Notice of Mining, whereas, the County would serve as the lead agency pursuant to SMARA.



Figure 17. General site vicinity map for the proposed California Vision project.

The proposed sampling, and subsequent testing are from five distinct areas, and adjacent to pre-existing drill holes and “window” excavations. Sampling would include excavation at right angles to pre-existing drill holes or trenches approximately 100-150 feet in length, and approximately 30 feet in depth. Less than 5 cubic yards of material would be removed from the project area for laboratory testing, with surface disturbance estimated to be on the order of 4.48 acres (0.22 acres per drill site or 0.88 acres per drill site, and 1.1 acres at the bulk sampling location). In summary, 19 trenches and one 700 cubic yard bulk test at another mined site were proposed.

Four trenches would be excavated at right angles to five pre-existing drill holes. These trenches would be 65 in width at the land surface, 30 feet in depth with 2 horizontal:1 vertical (2H:1V) sides, and approximately 100 to 150 feet in length. It is estimated that a total of approximately 108,333 cubic yards of materials would be excavated, in addition to 500 cubic yards of bulk sampling. Thus, the total amount of material being excavated for representative sampling purposes was anticipated to be on the order of 108,833 cubic yards.

As part of its SMARA application to the County, a Biological Assessment, Traffic Study, Revegetation Plan, Hydrology Study, Storm Water Prevention Plan, and Dust Control Plan, were submitted to the County and BLM. The BLM in their review of the Biological Assessment, would require a Plan of Operations prior to commencement of sampling and testing activities under a 3809 Mining Notice (43 CFR 3809 regulations). In addition, an application for a surface mining permit and/or reclamation plan had been prepared. The materials to be excavated from the mining operation were proposed to be used solely for the extraction of representative materials for geologic sampling and bulk testing. Since the activity being performed was related to site specific testing, no impact on commercial interests or competitive advantage were anticipated.

The proposed exploratory and sampling activity was subject to SMARA. However, an application for a surface mining permit and/or reclamation plan had been prepared and reviewed, and a plan of operations prior to commencement of sampling and testing activities under a 3809 Mining Notice (43 CFR 3809 regulations) would be required by BLM. Thus, on March 11, 2010, the SMGB moved that the project as proposed by California Vision, Inc., would not be subject to the requirements of SMARA, and that the SMGB conditionally grant a one-time

exemption from SMARA for this project under its authority provided by Public Resources Code Section 2714(f), providing compliance with all the County of Kern and BLM regulations and requirements.

M & T Ranch, Butte County: At its April 15, 2010, regular business meeting, the SMGB considered a request for a one-time exemption from SMARA from M&T Ranch/Llano Seco. The proposed project was for removal 150,000 tons of gravel from an existing stockpile to make room for more material which needs to be excavated as soon as possible to protect a water intake and fish screens within the Sacramento River channel.

In 2001 and 2007, 200,000 and 100,000 tons, respectively, of material were removed from a migrating gravel bar which was encroaching upon the M&T/Llano Seco water intake and fish screens. The 300,000 tons of material (owned by the State of California) is stored on a 10-acre site on M&T Ranch. In 2001 OMR commented to the State Clearing House that the project, as described in 2001, met the criteria for exemption under Section 2714(b). This determination was predicated on the fact that the gravel and sand was being removed from the Sacramento River and will be used only for river habitat and flood channel restoration activities within the Sacramento River Conservation Area. A reclamation plan would also be submitted to Butte County at some time in the future that addresses reclamation of the stockpile area. In addition, a competitive bid process will be implemented for the removal and sale of the stockpile into the aggregate market place.

The materials that have been excavated from the river and stockpiled in 2001 and 2007 were approved under rigorous environmental review by both the state and federal lead agencies, as well as permitted by all regulatory authorities. Both the 2001 and the 2007 projects occurred with required local, state and federal environmental review, including an Environmental Assessment/Initial Study, a Finding of No Significant Impact, State Lands Commission approval, USACE Section 10, 103, and 404 approvals, a Streambed Alteration Agreement and an December 15, 2009 letter from the Department of Conservation exempting the gravel bar excavation from SMARA. Residual hazards to the public health and safety were eliminated. The proposed removal of 150,000 tons of the existing stockpile would be given the same environmental review for the purposes of this exemption and in anticipation of future stockpile removal to make room for future gravel bar excavations until a long-term protection alternative is approved and constructed. The proposed removal of the stockpile and subsequent gravel bar excavation is, and would be, subject to all necessary lead agency permits. The County was supportive of the one-time exemption request.

The proposed activity of stockpile removal in conjunction with future gravel bar excavation would only be conducted until a long-term solution is approved and constructed; and, future stockpile removal and gravel bar excavations involve only minor surface disturbances which will be identified in the forthcoming environmental review. The end use or proposed end use of the property on which the activity will occur will be allowed to revert back to the original beneficial use of natural riverine habitat which is consistent with the natural environment, local biodiversity, and the enjoyment of the public. Stakeholders, including state and federal resource managers, consider that the reintroduction of the entire stockpile into the Sacramento River was not feasible due to the economics of processing to meet spawning gravel requirements, and due to costs associated with hauling to existing approved sites on the Sacramento River.

The SMGB approved the request for a one-time exemption from the requirements of the Surface Mining and Reclamation Act (SMARA) pursuant to Public Resources Code Section 2714(f), providing M & T Ranch/Rancho Llano Seco is in complete compliance with the County of Butte requirements and permit conditions.

Ford Construction, Tehama County: Ford Construction proposed to move approximately 4,600 cubic yards of material from one property and use such material located on a PG&E easement situated on another property (Figure 18). PG&E is required to fill an existing flume that runs through the Crawford property (one of several contracts to restore the fish habitat in Tehama and Shasta County). The Bureau of Reclamation as well as the Federal Energy Regulation Commission are managing the project along with PG&E. The project includes the excavation of 4,600 cubic yards of material from what is referred to as the Shaw property, and hauling of such material to what is referred to as the Crawford property, where it would be used for construction of an easement. The properties are adjacent to one another, and are not separated by any public roads. The materials to be excavated from the cut area are proposed to be placed as fill on the adjacent parcel. The material would not be hauled on any public right-of-way, and all material would be trucked to the adjacent parcel off-road. The longest haul from cut to fill will be less than 2,000 linear feet. The land owner would be monetarily compensated for the material cut from his property. The recipient of the material land would receive no compensation for the material being placed on his property.

An EIR was prepared by ICF International. A SWPPP and monitoring program has been prepared and approved by the California Regional Water Quality Control Board (CRWQCB). A NOI was issued and accepted by the CRWQCB (WDID No. 5R52C357301). Under the auspices of the Bureau of Reclamation (BOR), ICF International would be onsite full-time during all construction activities to assure all mitigation measures as well as the SWPPP and monitoring program are being implemented. Also, a traffic control plan had been prepared by Ford Construction and approved by the BOR and the Tehama County Public Works Department. An encroachment permit had also been issued by the Tehama County Public Works Department. The BOR has approved the cut/fill activity, providing Ford Construction acquires the necessary County permits.

On April 15, 2010, the SMGB approved the request for a one-time exemption from the requirements of SMARA pursuant to PRC Section 2714(f), providing the Ford Construction Company is in complete compliance with the County of Tehama requirements and permit conditions.



Figure 18. General site vicinity map.

The California Energy Commission, Imperial County: At its May 13, 2010, regular business meeting, the SMGB considered whether a borrow site located in Imperial County is subject to SMARA or eligible for a one-time exemption from SMARA from The California Energy Commission for a project located in Imperial County. The material from the borrow site would be used for construction and flood control purposes associated with a new geothermal power plant project.

The project incorporates a 34-acre borrow site located approximately 1,000 feet southeast of the plant site on property owned by same landowner as the plant site (California Energy, parent company of CE Obsidian). The material to be excavated would be used solely for the construction of foundations and a perimeter berm around the 160-acre geothermal power plant site in order to meet Imperial County flood control requirements. The volume of material exported from the site would be up to 300,000 cubic yards, and no material will be sold. Topsoil on-site would be salvaged and replaced after backfilling with topsoil stripped from plant site during initial grading activities.

The activity is temporary (12-18 months), and the applicant would be required to restore the borrow site to its present use (agriculture) immediately after it is no longer needed for preparation of the power plant site. Half of the borrow site is designated Prime Farmland but not under Williamson Act contract (verified by Imperial County). Land use is compatible with Imperial County zoning and land use ordinances (A-3-G = Agriculture/industrial with geothermal overlay).

An environmental review had been performed for this project, and all necessary permits were obtained by the County. The end use or proposed end use of the property on which the activity will occur will be compatible with Imperial County zoning and land use ordinances (A-3-G: Agriculture/industrial with geothermal overlay). The project is the need for material from a borrow pit to be used for a construction project. No potential impact on commercial interests had been provided.

The project is necessary for construction in conjunction with a renewable energy project. On May 13, 2010, the SMGB moved that the project as proposed by the California Energy Commission is subject to the requirements of SMARA, and that the SMGB conditionally grant a one-time exemption from SMARA for this project under its authority provided by Public Resources Code Section 2714(f), with the condition that all topsoil shall be salvaged and replaced as part of reclamation to an agricultural end use. This should be verified upon completion by the SMGB's staff.

Tea Pot Dome Water District, Tulare County: At its June 10, 2010, regular business meeting, the SMGB considered a request from the Tea Pot Dome Water District, for a one-time exemption from SMARA for the excavation of 84,000 cubic yards of material to be exported from the site, as part of construction of a groundwater recharge banking reservoir located approximately three miles southwest of the town of Porterville, County of Tulare, and to be used to cap a nearby landfill.

The Tea Pot Dome Water District is "a 'local agency' with independent authority to approve and carryout construction of facilities for the production, generation, storage, or transmission of water..." The project included construction of a 9-acre recharge reservoir and a turnout from the Friant-Kern Canal for banking of water from the Central Valley Project, and other waters of the District, in the groundwater basin for later extraction. Although the applicant opined that the project is exempt from SMARA pursuant to PRC Section 2714(b), such view is not consistent with long standing State policy. The construction exemption applies to excavated material that

is incident to a construction project. The proposed excavation was not exempt under PRC Section 2714(b) because:

1. The earth moving activities were not an integral and necessary part of a construction project;
2. The earth moving activities were not being undertaken to prepare the site for construction of structures, landscaping, or other land improvements associated with structures;
3. The construction project in this case was for capping of a nearby landfill. The earth moving activities are occurring approximately one-half mile away from the landfill, not “on site;” and
4. As presented, the earthmoving activities constitute an offsite borrow pit to provide cover material for a nearby landfill. Borrow pits were defined in California Code of Regulations (CCR) Section 3501 as “*Excavations created by the surface mining of rock, unconsolidated geologic deposits or soil to provide material (borrow) for fill elsewhere.*”

An end use as a groundwater recharge basin was not uncommon, and is consistent with the intent of SMARA that mining operations with this eventual beneficial end use be reclaimed. Similar projects have been required to comply with SMARA and obtain an approved reclamation plan. As the availability of water supplies becomes more critical, more mining operations with an end use of water storage and groundwater recharge were anticipated. In addition, Tulare County officials had indicated that several similar projects will be forthcoming. Furthermore, should this project be exempt, the SMGB could anticipate a number of these types of exemption requests in the future reflecting the water needs in certain parts of the state.

The excavated material was planned to be stockpiled on an adjacent property under agreement and owned by the Bureau of Reclamation, and may be used by the Tulare County Landfill as final cover material should the material fulfill the requirements set forth for the landfill. Regardless, whether the extracted material was to be sold creating an unfair level playing field was uncertain.

At its June 10, 2010, regular business meeting, the SMGB deemed the removal of 84,000 cubic yards of material from the 9-acre borrow pit to be subject to SMARA, but conditionally approved the request for a one-time exemption from the requirements of the SMARA. The exemption pertained to specific activities as described, with the provision that no off-site stockpiling of extracted materials would occur, and that once extracted, soil materials were to be transported directly to the landfill site for immediate use as landfill cover.

SMGB AS A SMARA LEAD AGENCY

There are four circumstances when the SMGB is empowered to assume local 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 was one lead agency in this category as of June 30, 2010.

2. When a local jurisdiction has no mining ordinance, yet has a surface mining, or proposed surface mining, operation within its jurisdiction. There were eight lead agencies in this category as of June 30, 2010.
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; The SMGB had one appeal, against the City of Chula Vista, regarding reclamation plan inaction before it as of June 30, 2010.
4. When the SMGB determines that a lead agency has failed in one or more of its responsibilities under SMARA. There were two lead agencies, El Dorado County and Yuba County, in this category as of June 30, 2010.

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. Under SMARA Section 2774.4 the SMGB will have this inspection authority for a minimum of three years. On June 14, 2001 the SMGB assumed SMARA lead agency authority from the County of El Dorado, and on February 14, 2002 the SMGB assumed SMARA lead agency authority from the County of Yuba. During previous reporting periods the SMGB also reviewed the SMARA programs for the Counties of Butte, Sacramento, Santa Clara, San Bernardino, and Siskiyou, and the City of Irwindale. During the 2009-2010 reporting period, the SMGB reviewed the SMARA programs for the County of Sierra and the City of Lake Elsinore. In addition, the OMR Lead Agency Review Team (LART) was established in 2007 to further review the overall performance of SMARA lead agencies, and provides assistance, as deemed necessary. During this reporting period, LART reported to the SMGB on their review of Sutter County and Tuolumne County.

As of July 2010, the SMGB serves as lead agency under SMARA for 44 individual mining operations located in California. Of these 44 surface mining operations, 25 are located within two counties (El Dorado County and Yuba County), 7 are located within cities that do not have surface mining ordinances, and 12 are dredging operations located within the San Francisco Bay and bay delta areas.

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 19 through 23.



Figure 19. Former aggregate extraction pond within the Yuba Goldfields near the community of Hallwood in Yuba County showing reclaimed shorelines. (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 July 2010, the SMGB serves as SMARA lead agency for 7 cities that have surface mining operations within their jurisdiction, but do not have certified surface mining ordinances.

Finally, 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 surrounding San Francisco Bay and its surrounding Bays and tributary water bodies. As of July 2009 there were 11 active marine dredging operations, and one inactive operation that have approved reclamation plans in place, for which the SMGB oversees SMARA compliance. Three marine dredging operations ceased activities and were considered closed and reclaimed in late 2009.



Figure 20. The Cool Cave Quarry located in El Dorado County.
(Photo credit: Will Arcand)



Figure 21. Atkinson Pit No. 1 located in the City of Compton.
This former 50 feet in depth open pit clay mine is being reclaimed via backfilling to the adjacent street level for future open and industrial land use. (Photo credit: Will Arcand)



Figure 22. 2009 View of slope above former aggregate quarry within the City of Richmond showing recently installed line of rock bolts.
(Photo credit: Will Arcand)



Figure 23. 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, 2010, is summarized in Table 12.

**Table 12
SMGB SMARA LEAD AGENCY SURFACE MINES**

CA ID No.	Mine Name	Status	Primary Commodity	Local Lead Agency
91-07-0006	Richmond (Chevron) Quarry	Mining Completed - Reclamation In Progress	Franciscan Rock, Recyclable Concrete and Asphaltic Material	City of Richmond
91-07-0007	Pt. Richmond (Canal) Quarry	Reclamation Completed – Post Reclamation Monitoring	Franciscan Rock	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	Idle	Alluvial Sand and Gravel	County of El Dorado
91-09-0015	Marin Quarry	Idle	Granodiorite	County of El Dorado
91-19-0004	Atkinson Pit I	Mining Completed - Reclamation In Progress	Clay	City of Compton
91-27-0006	CEMEX-Lapis	Active	Beach Sand	City of Marina
91-31-0013	Big Gun Quarry	Idle	Granite	City of Rocklin
91-33-0003	Super Creek Quarry (Painted Hills)	Active	Decorative Stone	City of Desert Hot Springs
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
91-38-0012	San Francisco Marina Dredging Operation	Mining Not Commenced	Marine Sand	San Francisco BCDC
91-56-00XX	Santa Paula Rock	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
91-58-0015	Blue Point Clark Rock Quarry	Reclamation Complete - Post Reclamation Monitoring	Metabasalt	County of Yuba

**Table 12 (Continued)
SMGB SMARA LEAD AGENCY SURFACE MINES**

CA ID No.	Mine Name	Status	Primary Commodity	Local Lead Agency
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
91-58-0026	Three Rivers Levee Improvement Authority, Feather River Levee Repair Project Segment 2	Active - Reclamation In Progress	Levee Fill Material	County of Yuba

SUMMARY OF SMARA REGULATIONS AND GUIDELINES ADOPTED BY THE SMGB

PRC Section 2755 provides authority to the SMGB to adopt regulations that establish State policy for the reclamation of mined lands. PRC Section 2759 states that State policy shall be continuously reviewed and may be revised, based on consultation and evaluation of recommendations of the Director of DOC, advisory committees, concerned federal, State and local agencies, educational institutions, civic and public interest organizations, and private organizations and individuals. No new or amended regulations were enacted during the 2009-2010 reporting period.

Vested Rights Determinations When the SMGB Serves as a SMARA Lead Agency

Two vested rights determinations were considered by the SMGB during the 2009-2010 reporting period: Western Aggregates, LLC, Yuba Goldfields operations located in the County of Yuba, and the proposed Big Cut Mine located in the County of El Dorado.

SMARA requires all individuals and operators to acquire a permit from the local lead agency, and to obtain a SMARA lead agency approved reclamation plan and financial assurances for reclamation, prior to the commencement of surface mining operations (PRC Section 2770(a)). However, any person who has obtained a vested right to conduct surface mining operations prior to January 1, 1976, shall not be required to secure a permit pursuant to this chapter as long as the vested right continues and as long as no substantial changes are made in the operation except in accordance with this chapter (PRC Section 2770(b)).

In May 2000, the Yuba County Community Development Director determined that Western Aggregates, LLC (Western) had vested rights to mine aggregate on 3,430 acres in the Yuba Goldfields. Following this action by the County, the decision was legally challenged, and in a January 2007 ruling, the California Court of Appeal, Third Appellate District, held that a proper public notice and hearing was required for any vested rights determination, and in the matter of Western’s surface mining operation in the Yuba Goldfields, Yuba County, stated that the County failed to provide a proper notice and hearing in its consideration of vested rights for this surface

mining operation [3rd District Court of Appeal (DCA) Ruling, 2006 (William Calvert et al. v. County of Yuba et al., 145 Cal.App.4th 613)]. The court ruling provided two options for Western's consideration should Western want to continue its aggregate mining in the Yuba Goldfields. Western, or any surface mining operator, could either 1) obtain a permit to conduct such surface mining based on a public adjudicatory hearing before the County, or prove its claim of vested rights in a public adjudicatory hearing before the SMGB (to be conducted within the County's area of jurisdiction). Western decided to appeal to the SMGB.

At its February 8, 2007 regular business meeting, the SMGB recognized its authority to conduct vested rights determinations (Resolution 2007-04), when serving as a Lead Agency under SMARA. At that same meeting, a Notice of Intent to seek confirmation of their vested rights for Western's Yuba Goldfields surface mining operations was received.

During 2007 and 2008, the SMGB formulated regulations for the conduct of a vested right when serving as a lead agency pursuant to SMARA. These regulations were enacted on September 13, 2008, and amended on July 23, 2009.

Western Aggregates, LLC. Yuba Goldfields Operations, Yuba County

On August 6, 2009, the SMGB commenced the special public hearing to determine whether Western had vested rights for 4,125 acres, which included its current surface mining operations, located in the Yuba Goldfields. At its public hearing held on September 11, 2009, the SMGB accepted the findings set forth by CGS, and determined that a preponderance of evidence existed that demonstrated Western has vested rights for all Sections with exception to Sections 25 and 30, and the southwest corner of Section 34. The SMGB at its February 11, 2010, regular business meeting considered limitations in terms of annual production associated with this determination of vested rights, and determined that no limitations or restrictions on annual production would be imposed. On March 11, 2010, the SMGB formally adopted its determination pursuant to CCR Article 15, Section 3964.

The Western Aggregates surface mining operation is situated in what is referred to as the Yuba Goldfields (Figure 24). The Yuba Goldfields encompasses approximately 10,000 acres along about 11 miles of the Yuba River between Yuba City-Marysville and Smartsville. This unique area is dominated by dredger tailings reworked from hydraulic mine waste that was deposited between 1852 and 1893 when the Caminetti Act was passed, ending hydraulic mining upstream. The Yuba Goldfields were the poster child of the agricultural lobby who brought the historic suit to put an end to hydraulic mining. This may have been the first significant victory of the environmental community in California. The construction of Englebright Dam in 1941 finally stopped the downstream migration of the old hydraulic tailings. Dredging of gold from the hydraulic waste began in 1902 near the town of Hammonton and by 1910, 15 dredges were operating in the lower Yuba River. The area has been dredged and re-dredged intermittently to progressively greater depths until the present time.



Figure 24. The Yuba Goldfields (Source: NASA Earth Observatory)

In 1988, the California Geological Survey 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. At the time of the classification study, the entire area of the goldfields had been classified by Yuba County in their general plan as a mineral resource extraction land use area.

Determination of Vested Rights Regulation Development: In a January 2007 ruling, the California Court of Appeal, Third Appellate District, held that a proper public notice and hearing was required for any vested rights determination, and in the matter of *Western* stated that the County failed to provide a proper notice and hearing in its consideration of vested rights for this surface mining operation. The court ruling provided two options for *Western’s* consideration should *Western* want to continue its aggregate mining in the Yuba Goldfields: either 1) prove its claim of vested rights in a public adjudicatory hearing before the SMGB (to be conducted within the County’s area of jurisdiction), or 2) obtain a permit to conduct such surface mining based on a public adjudicatory hearing before the County.

The SMGB has assumed certain obligations and responsibilities of a SMARA lead agency in the implementation of SMARA in the County of Yuba. These responsibilities include approval of reclamation plans and financial assurances, conduct of site inspections, and determination of vested rights when petitioned by a claimant (operator) and such petition is determined to be within the jurisdiction of the SMGB. The SMGB recognized its authority to conduct a vested rights determination at its regular business meeting held on February 8, 2007, and adopted Resolution 2007-04 which defined the SMGB’s authority as a SMARA lead agency to conduct a vested rights determination.

Between March 8, 2007, and September 14, 2007, the SMGB conducted several public hearings to hear preliminary concerns and comments from various stakeholders. These preliminary concerns and comments were reviewed by the SMGB and were publicly discussed at the SMGB’s Policy and Legislation Committee meetings held on March 8, April 12, May 10, June 14 and September 7, 2007, and by the whole SMGB during its regular business meeting held on September 13, 2007. The SMGB adopted the new regulations at its regular business

meeting held on February 14, 2008. On August 14, 2008, the Office of Administrative Law approved the proposed regulations, and such regulations were enacted on September 13, 2008.

Submittal of Request for Determination: Western filed a vested right Request for Determination on November 5, 2008. A chronology of pertinent administrative procedural actions since receipt of Western's Request for Determination is summarized in Table 13.

TABLE 13 Chronology of Pertinent Administrative Procedural Actions Western Aggregates, LLC. Request for Vested Rights Determination	
Administrative Action	Date Exercised
Receipt of Request for Determination with Administrative Record	November 5, 2008
Determination of Jurisdiction	November 19, 2008
Mailing of Determination of Jurisdiction	December 1, 2008
Mailing of Notice of Pending Vested Rights Determination	January 6, 2009; amended January 12, 2009
Estimated Cost for Determination of Findings Provided to Claimant	January 27, 2009
Determination of Hearing Officer	February 5, 2009
Commencement of Review of Administrative Record by CGS	March 3, 2009
Determination of Schedule	April 9, 2009
Provision of Further Public Notice	May 8, 2009
Submission of Written Comments and Materials	June 1, 2009
Submission of Rebuttal Materials	June 23, 2009
Commencement of Public Hearing	August 6 and 7, 2009
Continuation of Public Hearing and Determination	September 11, 2009
Public Hearing to Schedule Consideration of Limitations of Vested Rights	January 14, 2010
Public Hearing to Consider Limitations of Vested Rights Pertaining to Annual Production	February 11, 2010

August 6, 2009 Public Hearing: The special public hearing for the SMGB to receive comments was held on August 6, 2009. Such discussions were continued during the public hearing held on September 11, 2009.

At its public hearing held on September 11, 2009, the SMGB accepted the findings set forth by the California Geological Survey (CGS), and determined that a preponderance of evidence existed that demonstrated Western has vested rights for all Sections, with exception to Sections 25 and 30, and the southwest corner of Section 34 (Figure 25). The SMGB also noted that it would consider limitations in terms of annual production associated with this determination of vested rights. This matter was to be discussed at the SMGB's January 2010, regular business meeting to be held in the City of Marysville, California. However, on January 14, 2010 this item was deferred until February 11, 2010. In addition, upon such consideration and determination by the SMGB, Western would submit an

amended reclamation plan for all of their surface mining operations within 90 days of such determination.

Evidence Considered: In making the Findings set forth herein, the SMGB analyzed and considered all of the following documents and testimony:

1. Western's RFD, including approximately 13,000 pages of text and mining reports, and 75 maps (August 6, 2009 SMGB Executive Officer's Report, Agenda Item No. 1, p. 8; September 11, 2009 Executive Officer's Report, Agenda Item No. 10, p. 11).
2. Numerous other documents submitted into the record by Western, interested parties, and members of the public. Certain of these documents are listed in the three Executive Officer's Reports prepared in advance of the August 6, 2009, September 11, 2009 and February 11, 2010 public hearings. Such documents include, without limitation, the list contained in Table 2 of this Executive Officer's Report.
3. The analyses and findings of CGS set forth in its July 2009 Review of Evidence, Western Aggregates LLC, Vested Rights Determination, prepared pursuant to a request from the SMGB during its April 10, 2008 public meeting that CGS assist the SMGB and SMGB staff in its review and analysis of the administrative record, including evidence submitted by Western in connection with the RFD. The SMGB requested that CGS conduct a detailed review of the RFD. CGS considerations also included review of topographic maps and aerial photographs from 1973, and public comments received after issuance of its July 2009 analysis (September 11, 2009 hearing transcript, at 222:6-10)." CGS also undertook a one-day site visit to Western Aggregates' property in the Yuba Goldfields (August 6, 2009 Executive Officer's Report, Agenda Item No. 1, p. 8; September 11, 2009 Executive Officer's Report, Agenda Item No. 10, p. 11).

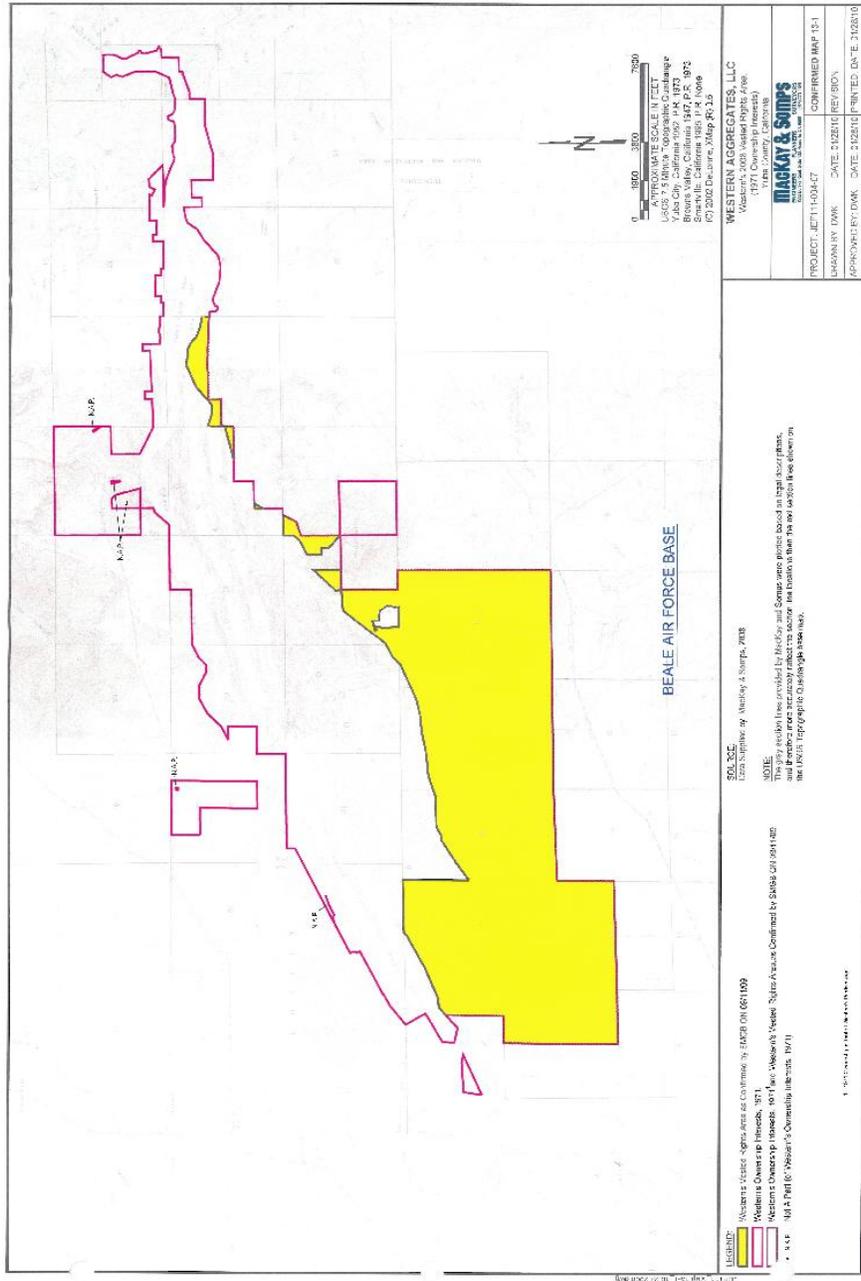


Figure 25. Figure from Western Aggregate’s January 2010 submittal showing the area of vested rights granted by the SMGB at its September 11, 2009, public hearing.

4. The analyses and determinations of CGS set forth in its August 28, 2009 “Report on Regional Aggregate Production for Use in the State Mining and Geology Board’s Western Aggregates, LLC Vested Rights Determination”, which was prepared pursuant to the SMGB’s supplemental request to CGS during the August 6, 2009 hearing (September 11, 2009 Executive Officer’s Report, p. 10; August 28, 2009 CGS Report; September 11, 2009 hearing transcript, at 11:20-16:6).

5. Oral testimony presented during the August 6, 2009, September 11, 2009, and February 11, 2010 SMGB hearings on Western's RFD.

In summary, the administrative record for this matter included all written documents and oral testimony received and all statements made during the public hearings, as well as the transcripts from the SMGB's three public hearings.

Findings: Based on its review of the evidentiary materials detailed above, the SMGB made the following Findings with regard to Western's Request for Determination and its vested right in the Yuba Goldfields, Yuba County, California:

Location and Ownership

Finding No. 1. Western's title to the lands for which vested rights were requested and determined by the SMGB (the "Vested Right Area") entitles Western to conduct surface mining activities on such lands (CGS July 2009 Report, pp. 11-15, and 44). The Vested Right Area is more particularly described in item 14, *infra*.

Finding No. 2. The chain of land ownership supports Western's claim of successor operator for surface mining activities. Western's predecessors-in-interest's title to the Vested Right Area as of April 13, 1971 and January 1, 1976, the dates that vested rights were established under Yuba County law and the Surface Mining and Reclamation Act, respectively, entitled such predecessor-in-interest to mine gold, precious metals, and aggregates, including but not limited to sand, gravel, rock and like materials, on the Vested Right Area (CGS July 2009 Report, pp. 13-15, and 44; Finding No. 18, September 11, 2001 EO Report p. 16).

Relevant Dates for Assessing Establishment of Vested Rights

Finding No. 3. The relevant dates for evaluating establishment of vested rights by Western's predecessor are April 13, 1971, the date that Ordinance No. 472, Yuba County's first restrictive mining ordinance became effective, and January 1, 1976, the effective date of Section 2776 of the Surface Mining and Reclamation Act (CGS July 2009 Report, pp. 16-17).

Evidence of Historic Ordinances or Regulations Governing Conduct of Mining Operations

Finding No. 4. Yuba County Ordinance No. 205 (1956) applied to all of the Vested Right Area (CGS July 2009 Report, p. 45). All sections in question were included under the 1956 county mining ordinance 205 (Finding No. 17, September 11, 2001 EO Report, p. 16).

Finding No. 5. Yuba County Ordinance No. 472 (1971) applied to all of the Vested Right Area (CGS July 2009 Report, p. 45). All the sections in question were included under the 1971 county mining ordinance 472 (Finding No. 16, September 11, 2001 EO Report, p. 16).

Finding No. 6. Yuba County Ordinance No. 472 was the first ordinance in Yuba County that required permits for new mining operations.

Evidence Establishing a Vested Right

Finding No. 7. Prior to April 13, 1971, Western's predecessor, referred to as Yuba Consolidated, conducted a single, large-scale mining operation on over 9,000 acres in the Yuba Goldfields that mined and produced a variety of products, including gold, sand, gravel, riprap, asphalt, and hardrock (CGS July 2009 Report, pp. 22, 31, 47 and 52).

Finding No. 8. In determining whether Western's predecessor established a vested right to mine and operate within the Vested Right Area, as well as the geographic scope of the vested right, the SMGB evaluated only mining and ancillary activities that occurred on the Vested Right Area. Mining activities that occurred outside of the Vested Right Area, but still within the lands owned by Western's predecessor as of 1971, were not considered by the SMGB in establishing the geographical scope of Western's vested right, but were considered by the SMGB in evaluating whether there has been a substantial change or impermissible intensification in Western's operations as compared to that of its predecessor.

Finding No. 9. Yuba Consolidated's business operation prior to April 13, 1971 employed a wide variety of methods to excavate gold, sand, rock, gravel and other aggregate materials, including dredges, dozers, front end loaders, drag scrapers, slackline cable excavators, and excavators (CGS July 2009 Report, pp. 17-18, 32-33, 47 and 52).

Finding No. 10. The following mining activities or mining-related features occurred prior to April 13, 1971 on the Vested Right Area (CGS July 2009 Report, pp. 22-29, and 47):

- a. Exploratory test holes, which served as a tool for determining where future gravel reserves would occur after gold dredging was completed, were drilled throughout Western's predecessor's lands--including substantially all of the Vested Right Area prior to April 13, 1971 (CGS July 2009 Report, pp. 19, 20, 46).
- b. Dredging activities utilizing bucket line dredges (CGS July 2009 Report, pp. 19, 46).
- c. Aggregate removal activities using a variety of equipment (CGS July 2009 Report, pp. 22-29, 47).

Finding No. 11. The following mining-related activities occurred in the Vested Right Area:

- a. The construction and operation of at least four (4) processing plants (CGS July 2009 Report, pp. 32, 48).
- b. The operation of at least two (2) truck scales (CGS July 2009 Report, pp. 32, and 48; Western Aggregates' January 2010 Proposal, pp. 21, and 23 – 24 and Exhibit D, pp. 24 – 26).
- c. The construction and use of haul roads to transport aggregates to the marketplace (CGS July 2009 Report, pp. 30, 47-48;

Western Aggregates' January 2010 Proposal, pp. 19 - 24 and Exhibit D).

Finding No. 12. Western's predecessor demonstrated an objective manifestation of intent to mine all of the Vested Right Area. Evidence supporting this finding includes, but is not limited to:

- a. From 1937 to at least 1965, Gravel Reserves Maps were prepared by Western's predecessor to inventory its aggregate reserves (CGS July 2009 Report, pp. 34 and 48). Eleven (11) of the fourteen (14) Sections identified in the RFD had lands mapped as containing gravel reserves (CGS July 2009 Report, pp. 34, 48). That the Gravel Reserves Maps were prepared exclusively to inventory aggregate reserves and had no value in regard to gold production was established by live testimony before the SMGB (Testimony of J. Hodos, August 6, 2009, Transcript, at pp. 259 – 260) and by declaration (Declaration of E. Hodos accompanying Western's June 2009, Rebuttal to Public Comments, pp. 16 – 23, and Declaration of J. Hodos accompanying Western's June 2009, Rebuttal to Public Comments, pp. 12 – 14).
- b. Repeated studies conducted by Western's predecessor prior to 1974 to evaluate ways to market the vast aggregate resources contained on all of its lands, including studies in 1927, 1929, 1958 and 1974 (CGS July 2009 Report, pp. 33, and 48). All of these studies evaluated large-scale and long-range potential sales of aggregates, and each study examined the feasibility of transporting aggregates to the San Francisco Bay Area (CGS July 2009 Report, pp. 33-34, and 48).

Finding No. 13. Based on the foregoing, and other evidence contained in the record, Western's predecessor, acting in good faith and in reliance on the fact that no permit was then required by State or County law, diligently commenced surface mining operations prior to April 13, 1971 and incurred substantial liabilities for work and materials necessary therefore, and continued such operations, work and reliance through January 1, 1976.

Conclusions Concerning the Scope and Scale of Western's Vested Rights

The following conclusions were considered by the SMGB at its August 6 and September 11, 2009, public hearings, and accepted at its September 11, 2009, public hearing.

Conclusion No. 1 – T15N R4E Section 1: Within Section 1, 819 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 270 drill holes, dredge cut mapping, and presence of tailings and haul roads. Twelve mining operations and one plant site were documented. The deepest drilling log was to a depth of 252 feet below ground level.

Conclusion No. 2 - T15N R4E Section 2: Within Section 2, 233 acres there appears to be evidence to support findings of mining activities

prior to 1976. Evidence for mining included 47 drill holes, dredge cut mapping, and the presence of tailings and haul roads. Two mining operations were documented. The deepest drilling log was to a depth of 121 feet below ground level.

Conclusion No. 3 - T15N R4E Section 11: Within Section 11, 159 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 30 drill holes, dredge cut mapping, and the presence of tailings and haul roads. Seven mining operations, three plant sites and one scale site were documented. The deepest drilling log was to a depth of 118 feet below ground level.

Conclusion No. 4 - T15N R4E Section 12: Within Section 12, 320 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 47 drill holes, dredge cut mapping, and the presence of tailings and haul roads. Fourteen mining operations were documented. The deepest drilling log was to a depth of 111 feet below ground level.

Conclusion No. 5 - T15N R5E Section 4: Within Section 4, 860 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 59 drill holes, dredge cut mapping, and the presence of tailings and haul roads. Four mining operations were documented. The deepest drilling log was to a depth of 41 feet below ground level.

Conclusion No. 6 - T15N R5E Section 5: Within Section 5, 750 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 59 drill holes, dredge cut mapping, and the presence of tailings and haul roads. Two mining operations were documented. The deepest drilling log was to a depth of 121 feet below ground level.

Conclusion No. 7 - T15N R5E Section 6: Within Section 6, 535 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 138 drill holes, dredge cut mapping, and the presence of tailings and haul roads. Eleven mining operations and one scale site were documented. The deepest drilling log was to a depth of 216 feet below ground level.

Conclusion No. 8 - T16N R5E Section 25: Within Section 25, 32 acres the sole evidence for mining included presence of haul roads. No other supportive evidence was found in the submittal.

Conclusion No. 9 - T16N R5E Section 26: Within Section 26, 74 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 5 drill holes, dredge cut mapping, and the presence of tailings and haul roads. One mining operation was documented. The deepest drilling log was to a depth of 86 feet below ground level.

Conclusion No. 10 - T16N R5E Section 27: Within Section 27, 8 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 7 drill holes, dredge cut mapping, and the presence of tailings and haul roads. The deepest drilling log was to a depth of 32 feet below ground level.

Conclusion No. 11 - T16N R6E Section 30: Within Section 30, 54 acres one mining operation was documented. No other supportive evidence was found in the submittal.

Conclusion No. 12 - T16N R5E Section 32: Within Section 32, 9 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included one drill hole, dredge cut mapping, and the presence of tailings and haul roads. The deepest drilling log was to a depth of 148 feet below ground level.

Conclusion No. 13 - T16N R5E Section 33: Within Section 33, 151 acres are under consideration. There appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 26 drill holes, dredge cut mapping, and the presence of tailings and haul roads. Four mining operations were documented. The deepest drilling log was to a depth of 156 feet below ground level.

Conclusion No. 14 - T16N R5E Section 34: Within Section 34, 9 acres there appears to be evidence to support findings of mining activities prior to 1976. Evidence for mining included 5 drill holes, dredge cut mapping, and the presence of tailings and haul roads. Two mining operations were documented. The deepest drilling log was to a depth of 41 feet below ground level.

Conclusion No. 15 - T16N R5E Section 34: Within Section 34, 157 acres evidence for mining included one suspect haul road. Two suspect mining operations that are likely located in Section 33 were documented. No other supportive evidence was found in the submittal.

Conclusion No. 14. In summary based on the historic mining activities that occurred prior to April 13, 1971, the SMGB determined that Western possesses a vested right on the following Sections (September 11, 2009 hearing transcript, at 250:4-262:6, adopting Proposed Motions 1, 3-8, 10-11, 13-14, and 15; August 6, 2009 SMGB Executive Officer's Report, Agenda Item No. 1, Findings Nos. 1-7, 9-10, 12-13, and 14, pp. 11-13):

- Section 1, T15N, R4E
- Section 2, T15N, R4E
- Section 11, T15N, R4E
- Section 12, T15N, R4E
- Section 4, T15 N, R5E
- Section 5, T15 N, R5E
- Section 6, T15 N, R5E

- Section 26, T15 N, R5E
- Section 27, T15 N, R5E
- Section 32, T15 N, R5E
- Section 33, T15 N, R5E
- A portion of the NW 1/4 of Section 34, T15 N, R5E

Conclusion No. 15. Based on analysis of the historic mining activities conducted by Western's predecessor and the overall nature of its predecessor's business operation, Western's vested right to mine aggregates within the Vested Right Area is not limited to any particular equipment or mining method.

Conclusion No. 16. Based on analysis of the historic mining activities conducted by Western's predecessor and the overall nature of its predecessor's business operation, Western's vested right includes the right to mine, process, otherwise produce, and market a variety of materials, including aggregate materials of all kinds, including but not limited to sand, gravel, rock, stone, cobbles, hardrock, decorative rock, silica, riprap and asphalt rock.

Conclusion No. 17. Based on analysis of the historic mining activities conducted by Western's predecessor and the overall nature of its predecessor's business operation, Western's vested right includes the right to mine, dig, drill, explore, excavate, wash, crush, sort, weigh, stockpile, transport, haul and otherwise process such aggregates by means of processing and other plants and equipment, including mobile equipment, as well as the right to transport such materials to market, and all other activities and equipment ancillary to the foregoing business operation.

Conclusion No. 18. Based on analysis of the historic mining activities conducted by Western's predecessor and the overall nature of its predecessor's business operation, there is no depth limitation on Western's vested right to exploit aggregates in the Vested Right Area.

Annual Production

Conclusion No. 19. To evaluate the overall scale of historic production conducted by Western's predecessor, the SMGB considered all historic aggregate removal activities that occurred on 9,000 acres of contiguous lands owned by Western's predecessor as of April 13, 1971, referenced in these proceedings as Yuba Consolidated's "Ownership Area", including lands north of the Vested Right Area. This was based on the following:

- a. Western's predecessor's overall business operation was a large-scale mining enterprise conducted as a single operation on the contiguous lands that comprised the Ownership Area. Haul roads within the Vested Right Area were used to transport aggregate from areas owned by the predecessor outside of the Vested Right Area, but still within the predecessor's Ownership Area, into and through the Vested Right Area for weighing, processing, and for transport to market.

- b. Prior to 1971 Western's predecessor had colorable title to its Ownership Area.
- c. All historic mining in the Ownership Area is relevant to assessing whether there has been a "substantial change" or "impermissible intensification" in the amount of production since the vested right was established.

Conclusion No. 20. Pre-1971 production and sales by Western's predecessor ranging from over 1.2 million tons in 1958 to 600,000 tons per year in 1974 (CGS July 2009 Report, p. 47).

Conclusion No. 21. The historical record of annual production is incomplete, and fails to quantify significant mining activities that were conducted prior to 1971 for the account of Western's predecessor by numerous third party contractors (August 2009 CGS Report, p. 2; Western Aggregates' January 2010 Proposal, pp. 30 - 35).

Conclusion No. 22. It is impossible to ascertain precisely where all of the historic aggregate extraction activities occurred prior to 1971 because much of the deposition testimony evidencing such mining failed to identify specific locations (September 11, 2009 hearing transcript, at 205:19-206:11).

Conclusion No. 23. As a consequence of such incomplete production records, it is appropriate to use the existing historic production records to establish Western's vested right because such incomplete record does not have the potential to exaggerate the scope of Western's predecessor's activities.

No Substantial Change in Operations

Conclusion No. 24. Following establishment of a vested right under Yuba County law on April 13, 1971, Western's predecessors (and subsequently Western) continued to engage in the same business operation on the Vested Right Area as was conducted prior to 1971 (CGS July 2009 Report, pp. 39-40, and 50). There has been no substantial change in the nature of such mining activities (CGS July 2009 Report, pp. 40 and 50).

Conclusion No. 25. There was testimony before the SMGB concerning whether the appropriate date for the establishment of Western's vested right should be April 13, 1971 or January 1, 1976. However, because Western's predecessor continued to engage in the same business operation, *i.e.*, the same mining activities, before 1971 up to and including January 1, 1976, Western is entitled to the same vested right regardless of such date.

Conclusion No. 26. Aggregate and gold mining operations have continued on the Vested Right Area until present day, with only a brief cessation of gold mining between 1967 and 1974 (CGS July 2009 Report, p. 40).

Conclusion No. 27. Other lands surrounding Western's Vested Right Area are subject to final determinations of mining vested rights, and the Vested Right Area itself is already subject to a final vested right determination for gold mining by a company other than Western; thus the activities allowed pursuant to Western's

vested right are consistent with the uses of surrounding land (CGS July 2009 Report, p. 40).

Conclusion No. 28. The neighborhood surrounding the Yuba Goldfields--and Western's area of ownership--has remained essentially rural in nature, and thus there has been no change in the overall character of the neighborhood (CGS July 2009 Report, pp. 40 and 50).

No Impermissible Intensification in Operations

Conclusion No. 29. Production by Western's predecessor, and then Western, has generally accounted for roughly the same percentage of Yuba County aggregate production (CGS August 2009 Report, p. 2). Between 1957 and 1971, Western's predecessor supplied approximately 43% of overall Yuba County aggregate production. Between 1990 and 2008, Western produced approximately 50% of overall Yuba County aggregate production (CGS August 2009 Report, p. 2 and Table 5; 2009 Executive Officer's Report, p. 10). The pre-1971 43% market share is likely understated because of incomplete records of production by Western's predecessor (CGS August 2009 Report, p. 2; September 11, 2009 hearing transcript, at 18:17-19:5).

Conclusion No. 30. Historically, there has been little correlation between Yuba County aggregate production and Yuba County population (CGS August 2009 Report, pp. 1-2).

Conclusion No. 31. Historically, there has been strong correlation between Yuba County aggregate production and market demand in the multi-County region including, but not limited to, Yuba, Sacramento, Placer and Nevada Counties (CGS August 2009 Report, p. 1 and Figure 3 September 11; 2009 Executive Officer's Report, p. 10).

Conclusion No. 32. The historic annual production of Western's predecessors and Western through the date of these findings reflects natural market growth and are not the result of impermissible intensification by Western (February 11, 2010 hearing transcript at 72:22-73:22; CGS August 2009 Report, pp. 1-2).

No Abandonment or Waiver of Vested Rights

Abandonment of Vested Rights

Conclusion No. 33. The historical record pertaining to CUP 74-48 and its amendments shows no clear and knowing intent by Yuba Consolidated to waive, abandon, or otherwise forego its vested right.

Conclusion No. 34. The historical record pertaining to CUP 74-48 and its amendments does not contain evidence of an overt act coupled with a clear intent by Yuba Consolidated to waive, abandon, or otherwise forego its vested right, and, in fact, there is evidence in the record of one or more affirmative acts on the part of Western's predecessor reflecting the intent to maintain and assert continuing vested rights.

Conclusion No. 35. The historical record demonstrates that Western's predecessor repeatedly asserted continuing vested rights as reflected in the

applications it submitted for multiple reclamation plans in 1979 through 1983 that contemplated continued mining of aggregates throughout Western's ownership area (Western Aggregates LLC's August 24, 2009 Response to Deputy Attorney General's Assertion that a 1977 CUP Amendment "Extinguished" Vested Rights, pp. 17 and Exhibit C). Other documents in the record also demonstrate that Yuba County and Western's predecessor acknowledged vested rights in the 1970s (*Id.*, pp. 16-17, and 21).

Conclusion No. 36. At least five other aggregate operators with vested rights in the Yuba Goldfields obtained CUPs after establishing their vested rights, without abandoning or waiving their vested rights (September 11, 2009 Executive Officer's Report, Agenda Item 10, pp. 9-11; Western Aggregates LLC's August 24, 2009 Response, pp. 15, and 23-25, and Exhibits A, D, E, F and H). Four of these vested operations derive their vested rights from the same predecessor as does Western (Yuba Consolidated); (Western Aggregates LLC's August 24, 2009 Response, p. 15 and Exhibit A).

Conclusion No. 37. Western continued to assert the vested rights attached to the Vested Right Area in its Department of Conservation Annual Reports, beginning in 1991, when such reports were first required to be filed (Western Aggregates LLC's August 24, 2009 Response, pp. 22-23; Western's RFD, Historical Record, Exhibit 18).

Conclusion No. 38. Based on the foregoing, Yuba Consolidated did not waive, abandon or extinguish its vested right, or intend to waive, abandon, or extinguish its vested right, as a result of applying for, or obtaining or accepting, the amendment to CUP 74-48 in 1976/1977.

Waiver of Reclamation Plan RP 80-01

Conclusion No. 39. There was no intent by Western's predecessor to waive its vested rights based upon Reclamation Plan 80-01. RP 80-01 itself stated that aggregate mining activities in the predecessors ownership area but outside of the boundaries of RP 80-01 would continue to be an important land use (August 6, 2009 SMGB Executive Officer's Report, Agenda Item No. 1, p. 10; June 9, 2009 Western Aggregates' response to SMGB, p. 4). Western's predecessor continued to engage in such mining activities in 1980 and thereafter within lands owned by Western's predecessor outside the boundaries of RP 80-01. (*Id.*)

Conclusion No. 40. Between 1979 and 1987, Western Aggregates' predecessor entered into multiple joint ventures and leases, and filed reclamation plans for lands outside the boundaries of RP 80-01 that are inconsistent with any waiver of a vested right arising out of RP 80-01 (August 6, 2009 SMGB Executive Officer's Report, Agenda Item No. 1, p. 10; June 9, 2009 Western Aggregates' response to SMGB, pp. 5-10 and Exhibits 5, 6 and 8-22).

Consideration of the SMGB: The SMGB had one primary action to consider. The SMGB is required to adopt a determination no later than 60 business days after completion of the vested rights public hearing pursuant to CCR Section 3964. Should the SMGB recognize the claimant's vested rights, in whole or in part, then an amended reclamation plan must be prepared by the claimant that is reflective of the current surface mining operation in accordance with SMARA and the SMGB's regulations within 90 days from this date (SMGB September 11, 2009, Executive Officer's Report, Motion No. 17).

On March 11, 2010, the SMGB moved to adopt its findings, and determinations and Resolution 2010-04, in recognition of vested rights to Western Aggregates, LLC, Yuba Goldfield surface mining operation.

Big Cut Mine, County of El Dorado

The SMGB serves as a Lead Agency in the implementation of the Surface Mining and Reclamation Act of 1975 (SMARA) in El Dorado County. On March 13, 2009, the SMGB received a Request for Determination for vested rights for the proposed Big Cut Mine (BCM), located in El Dorado County. At its public hearing held on April 15, 2010, the SMGB determined that a vested right did not exist for the Big Cut Mine property. On June 10, 2010, the SMGB formally adopted its findings in support of its determination pursuant to California Code of Regulations (CCR) Section 3964.

A chronology of pertinent administrative procedural actions taken to date is summarized in Table 14 below:

Table 14 Chronology of Pertinent Administrative Procedural Actions Big Cut Mine Request for Vested Rights Determination	
Administrative Action	Date Exercised
Receipt of Request for Determination with Administrative Record	March 13, 2009
Determination of Jurisdiction	April 3, 2009
Mailing of Notice of Pending Vested Rights Determination	May 15, 2009
Determination of Hearing Officer	May 14, 2009
Estimated Cost for Determination of Findings Provided to Claimant	August 12, 2009
Determination of Schedule	September 11, 2009
Commencement of Public Hearing	November 12, 2009
Receipt of Supplemental Information to Administrative Record	January 7, 2010
Further Public Notice	January 8, 2010
Notice/Submission of Written Materials	February 16, 2010
Submission of Responsive Written Materials	March 2, 2010
Determination of No Vested Right	April 15, 2010
Adoption of Findings in Support of Determination of No Vested Right	June 10, 2010

The Request for Determination received on March 13, 2009, is comprised of one volume which included 28 Exhibits. The Supplement to the Administrative Record was received on January 7, 2010.

At its May 14, 2009, regular business meeting, the SMGB determined that the whole SMGB would act as the hearing officer during conduct of a public hearing for a vested right determination. On September 11, 2009, the SMGB held a pre-hearing conference to address scheduling of the public hearing, and scheduled the hearing to commence on November 12, 2009. At the November 12, 2009, regular business meeting, it was decided that due to insufficient time for public comment, and to ensure proper noticing procedures, as well as at the request of the petitioner, the public hearing should be continued to April 15, 2010.

The comment period was closed on February 16, 2010. The claimant's Rebuttal period closed on March 2, 2010.

Background: The subject site encompasses 149.75 acres, and is located off Big Cut Road, approximately 1.5 miles south of the town of Placerville, and about 2 miles northwest of Diamond Springs, in El Dorado County, California. The site and vicinity are underlain by meta-sedimentary basement rocks of Paleozoic age (230 to 600 million years before present; mybp), which are overlain by three sedimentary rock formations of Tertiary age (1 to 63 mybp). From oldest to youngest, these Tertiary deposits are auriferous gravels, Valley Springs formation of Oligocene (25 to 36 mybp) to Miocene age (13 to 25 mybp). The two primary deposits of the Valley Springs formation are the rhyolite volcanic rock member, and fluvial gravel deposits. The auriferous gravels were extensively mined during the latter half of the 19th Century. The younger gravel deposits would later be mined to produce road base and surfacing materials (Revised Reclamation Plan for Big Cut Mine dated July 11, 2008). In summary, historically, predecessors mined both gold and aggregate from the site and vicinity. The BCM site is situated on a south-facing slope, and characterized by two distinct east-west oriented benches.

Early Mineral Patents (1875 to 1878)

Several mineral patents were issued by the United States in the mid-1870s. These included Patent No. 1718 (Mineral Certificate No. 484), Patent No. 2964 (Mineral Certificate No. 497) and a portion of Patent No. 1386 (Mineral Certificate No. 305).

Episodic Tunnel Mining (estimated pre-1866)

Existing tunnels extend in a north-westerly direction across what appears to be the entire length of the property. Three levels of tunnels reflecting past mining activities have been reported to exist, covering an estimated 150 feet of vertical depth throughout the property. The upper tunnel is approximately 1,200 feet in length. The tunnels range in size, but frequently are reported to be on the order of six feet in height and 4 feet wide.

Landecker Mine (circa 1902)

The Landecker Mine, according to County records, operated during the early 1900s (noted in the *Register of Mines and Minerals of El Dorado County, California, State Mining Board, April, 1902*). The drift mine was on 64 acres along what is recorded as Coon Hollow Channel (elevation 1900, Sections 17 and 20, T 10 N, R 11 E).

Ownership (1921)

The property was purchased in 1921 by Stanley Triplett, who subsequently leased the property to others for mining purposes. In 1942, and in the interest of national defense, the War Production Board (WPB) of the United States Government regulated the mining industry causing nonessential mines (i.e., gold mines) to cease operations, including any mining activities being conducted on the BCM site. The national WPB's primary task was converting civilian industry to war production. It was dissolved shortly after the defeat of Japan in 1945, and was replaced by the Civilian Production Administration in late 1945, and terminated by 1947.

January 1, 1976 Activities

Between World War II and January 1, 1976, there was no evidence of mining activities. Since the enactment of SMARA in January 1, 1976, no reclamation plan or financial assurances were ever approved for any surface mining activity.

New Ownership (1988)

In the mid-1980s, the property was purchased by Clinton and Kathleen Donovan. No surface disturbance from mine related activities were evident at time of purchase. Donovan entered into an agreement with Barney Sand and Gravel to operate an aggregate production (sand and gravel) operation.

Unpermitted Surface Mining Operation, Barney's Sand and Gravel (approx. 1991 – 1999)

At least two episodes of unpermitted surface mining activities occurred since the early 1990s. According to County and OMR records, Barney's Sand and Gravel operated an unpermitted surface mining operation from approximately 1991 until 1997. No permit was ever obtained, nor was a reclamation plan or financial assurance approved by the County during this period. A chronology of pertinent events and activities is summarized below:

1994	Five acres disturbed based on 1994 Mining Operation Annual Report. Sixteen acres were claimed by operator as vested and disturbed prior to 1976.
1994 to 1997	Approximately 5 to 7 acres disturbed, with one acre of disturbance reported for 1997. The Mining Operation Annual Report for 1997 notes that the mine is " <i>Closed with no intent to resume.</i> "
Circa late 1997	Complaint received from adjacent neighbor by County that mining activity was occurring on Donovan Ranch property.
August 13, 1998	Notice of Violation issued by County in accordance with SMARA and County Codes, and Notice to Cease and Desist Any and All Mining Activities issued by County Planning Department to Clinton Donovan.
August 27, 1998	Site operated by Barney's Sand and Gravel (CA Mine ID #91-09-0016). A final inspection for closure was performed with " <i>Approved reclamation complete,</i> " noted in the 1998 Surface Mining Inspection Report, as prepared by County mine inspector, William Mitchell (consultant with Resource Design Technology), dated September 10, 1998. Inspection report notes " <i>Post closure monitoring inspection within 6 months to confirm effectiveness of seeding</i> " (RFD 2009, Exhibit 7). No reclamation plan noted.
September 8, 1998	1997 Mining Operation Annual Report received by County and noted " <i>Closed with no intent to resume.</i> "

June 29, 1999 1998 Mining Operation Annual Report notes during the reporting year “*Closed-reclamation certified complete by lead agency.*”

Unpermitted Surface Mining Operation, Donovan Ranch (2002 - 2003)

November 6, 2002 SMGB notified by County of alleged unpermitted surface mining operation.

November 12, 2002 OMR accompanied by County performed a site inspection. Between 20 and 25 acres were noted as recently disturbed. Operable equipment staged on site. An inventory of such equipment was compiled.

November 25, 2002 County issued to the landowner a Notice of Violation in accordance with SMARA and County Code.

December 12, 2002 SMGB issued a Notice of Violation for operating a surface mine without possession of an approved reclamation plan, financial assurance and permit.

January 28, 2003 Preliminary consideration of vested rights made by County, with additional documentation requested by County. No further documentation was presented.

July 1, 2003 SMARA site inspection performed by SMGB’s inspector; numerous issues identified. Unpermitted surface mining operation documented and confirmed. A minimum of 15 to 20 acres deemed disturbed.

Considerations Regarding Vested Rights Determination by County (2003)

On January 28, 2003, County representatives met with the operator Rick Churches and legal counsel for the operator. The operator requested that the County find the owner has a “right-to-mine” arguing 1) U.S. Patent precludes County from permitting authority, 2) site is vested pursuant to SMARA, State law and that the site has not been abandoned, and 3) mine is a legal non-conforming use under local County Ordinance because continuous mining has occurred per Title 17 and Chapter 8.6 of the County Code (County’s Development Services Department correspondence dated February 12, 2010). The County noted that a U. S. Patent did not preclude state or county permitting regulatory authority, but would consider all other evidence and convene a hearing, if appropriate; no additional information was provided to the County by claimant.

Additional Unpermitted Surface Mining Activities Documented (2006)

2006 Property sold by Donovan around 2006 to Joseph Hardesty and Rick Churches.

April 4, 2006 SMARA mine inspection performed by SMGB’s inspector; violations and corrective measures reported.

April 25, 2007 SMARA mine inspection performed by SMGB’s inspector; additional violations and corrective measures reported.

Consideration of the SMGB: The SMGB reviewed:

- Summation of evidence provided by the claimant for mining activity for the site for which the claimant is seeking vested rights.
- Consideration of other factors pertinent to the SMGB in its consideration of vested rights, including criteria set forth in the SMGB's regulations and the *Hanson Brothers Enterprises, Inc. v. Board of Supervisors* (1996) 12 Cal.4th 533 opinion.
- Summation of information for the SMGB's consideration as required in CCR Section 3964 of the SMGB's regulations.

Based on its review of the evidentiary materials detailed above, the SMGB made the following Findings of Fact and Conclusions of Law with regard to the claimant's Request for Determination of its claim of vested rights for the proposed Big Cut Mine surface mining operation, County of El Dorado, California:

Findings of Fact

1. Location of Property in 2009 Request for Determination: The claimant is seeking confirmation of vested rights for aggregate mining on 149.75 acres of land (2009 RFD, Exhibit 3). The subject land is located on the Placerville, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle within portions of:
 - N ½ of the NE ¼ of Section 20 and NW ¼ of the NW ¼ of Section 21 in Township 10 North, Range 11 East, M.D.M.

Detailed legal descriptions of the areas requested for the vested rights determination are provided by Section, Township, and Range by Grant Deed (2009 RFD, Exhibit 2).

A list of current El Dorado County Assessor's Parcel Numbers (APN) for adjacent landowners is provided in Exhibit 1 of the 2009 RFD. The APN for the subject site is #051-430-16-100. The Big Cut Mine grant deed was recorded at the El Dorado County tax assessor's office on July 30, 1988, in Book 2972, Pages 93 through 98 (2009 RFD, Exhibit 2).

2. Ownership of Property in 2009 Request for Determination: The current land owner for the 2009 RFD is Joseph and Yvette Hardesty. Wells Fargo Bank, Los Angeles, serves as the Lessee or Lien Holder.
3. Zoning and Land Use Restrictions: The site is currently zoned Agricultural (A). On April 16, 1985, the County Board of Supervisors adopted Measure A (Resolution No. 77-85), which "*prohibit all open pit or surface mining operations on the County within 10,000 feet of any existing or planned residential, church, hospital or school use unless it is found and determined that: (1) such project will not have any adverse impact upon the environment; and (2) the project will not discourage residential use.*" Resolution No. 77-85 was amended (County Board of Supervisors Resolution No. 271-88) on August 2, 1988; whereas, the word "any" adverse impact on the environment is interpreted to mean "*any significant impact on the environment as defined and interpreted in the California Environmental Quality Act, the implementing regulations, and all applicable*

judicial decisions."The currently proposed end use, should surface mining commence, is cattle grazing and agricultural land use.

4. Mining Activity Prior to January 1, 1976: No evidence either in the 2009 RFD or 2010 RFD Supplement demonstrates that El Dorado County issued a permit or other authorization for aggregate or gold surface mining operation on the claimant's lands either prior to January 1, 1976 or thereafter. Mining and historical records in the 2009 RFD and 2010 RFD Supplement provide evidence of mining activity up to about the mid-1940s. The mining of gold in the BCM vicinity began in the mid-to-late 1800s and continued episodically until the 1940s. The following mining activities were associated with production of these commodities: excavation of auriferous sand and gravel primarily via hydraulic mining; gold recovery; and sidcasting of material after gold extraction forming tailings piles. The amount of gold produced is not documented. Evidence for mining includes primarily the existence of shafts and an underground network of tunnels that extend below a large portion of the site. Such mining activity appeared to be primarily for gold derived from the Tertiary gravel deposits. Historically, the deepest pre-1976 mining within the claimant's proposed vested rights area was up to about 150 feet below ground surface based on existing underground tunnels (2010 RFD Supplement, Exhibits 37 and 38). No drill log data is available. Estimated depth and thickness of Tertiary aggregates is uncertain. Types of pre-1976 mining activities within the area of the claimant's 2009 RFD and 2010 RFD Supplement are described and documented in Exhibits 37, 38, and 39. Activities include initial placer and hydraulic mining, and tunneling in Tertiary gravel deposits for gold. Within the limits of the proposed vested rights area, the primary product produced prior to 1976 was gold. The amount of material available for extraction is uncertain. Only gold is referred to as a product prior to January 1, 1976 in the 2009 RFD and 2010 RFD Supplement. No specific production information is provided in the 2009 RFD and 2010 RFD Supplement, and no estimate was made during review of the 2009 RFD and 2010 RFD Supplement. No historic or current sales records were contained in the 2009 RFD and 2010 RFD Supplement. No marketing reports are incorporated in the 2009 RFD or 2010 RFD Supplement.
5. No Evidence of Gold Mining After World War II. No evidence of more recent gold mining, i.e., subsequent to World War II, other than recreational, was presented.
6. Plant and Equipment Operations: Excavating methods that may have been used to mine gold and aggregate prior to World War II are indicated by the nature of the bluffs that were hydraulically mined, and equipment found in tunnels which included ore cart rails, gold pans, shovels, etc. (2010 RFD, Exhibit 39).
7. Evidence of Mining Activity between World War II and January 1, 1976: There is no substantial evidence, from before World War II to January 1, 1976, and up to about the early 1990s, of any mining activity on the property. A 1966 date appears written on a tunnel wall; however, there is no evidence correlating the existence of that mark with any mining activity then or otherwise. Based on observations made on October 18, 2002, GeoResource Management in correspondence dated October 29, 2002, claims that there has been "*continuing mining use of the site from 1976 to the present*" (2010 RFD Supplement, Exhibit 44). Access roads are evident in various aerial photographs; however, there is no adequate evidence to demonstrate that such roads were haul roads used for

mining purposes. Based on review of aerial photographs from September 1952 through 1998 to July 1997, and 1976 to present, Holdrege & Kull in a declaration dated January 7, 2010, discusses surface disturbance, and the presence of access roads, but does not demonstrate such disturbance to any specific lawful mining activity. The dates of the photographs reviewed were:

- September 2, 1952 (black and white frame)
- July 31, 1962 (black and white frame)
- 1973 (color infrared frame)
- 1978 (color frame)
- 1993
- 1998 (black and white frame)

8. Reserves Maps: No reserves maps or reports are incorporated in the 2009 RFD or 2010 RFD Supplement.
9. Aggregate Mining Operations: The 2009 RFD and 2010 RFD Supplement provides no substantive information relating to aggregate mining prior to January 1, 1976. At least two episodes of unpermitted, i.e., unlawful, surface mining activities have occurred since the early 1990s (i.e., no SMARA lead agency approved reclamation plan or financial assurance). Barney's Sand and Gravel surface mining operation from 1991 – 1999 was deemed by the County and the SMGB to be an unpermitted surface mining operation and was ordered to desist. The absence of a permit, approved reclamation plan and financial assurance caused the operator to cease operations, and reclaim the site. Reclamation was completed to the County's satisfaction in 1998.
10. Claimant's 2008 Reclamation Plan: No approved surface mining operation has taken place since Claimant's immediate predecessor's efforts in 2002-2003 were ordered to cease by El Dorado County for lack of permits.
11. No Confirmation of Vested Rights by El Dorado County: El Dorado County never received supporting documents in order to convene a public hearing to consider whether the claimant had established vested rights. There has been no determination of vested rights by El Dorado County.
12. No reclamation plan for mining activity on the site was timely submitted as required by law: SMARA (PRC Section 2770(b)) states "*Any person with an existing surface mining operation who has vested rights pursuant to Section 2776 and who does not have an approved reclamation plan shall submit a reclamation plan to the lead agency not later than March 31, 1988. If a reclamation plan application is not on file by March 31, 1988, the continuation of the surface mining operation is prohibited until a reclamation plan is submitted to the lead agency.*" No reclamation plan was submitted to the SMARA lead agency (County) prior to March 31, 1988.
13. The claimant's immediate predecessor did not demonstrate an objective manifestation of intent to mine all of the Vested Right Area.
14. No documents or evidence were presented to support the overall scale of historic production conducted by the claimant's predecessor.

Conclusions of Law

1. Preponderance of the Evidence: The claimant has the burden of proof in demonstrating its claim for vested rights. The SMGB shall determine whether the Claimant, by a preponderance of the evidence, has demonstrated through testimony and exhibits, enough evidence to support the claim for vested rights. The amount of evidence required can vary from claim to claim.
2. Objective manifestation: CCR Section 3963 states “As to any land for which Claimant asserts a vested right for expansion of operations, Claimant shall produce evidence demonstrating that the Claimant clearly intended to expand into such areas. Such evidence shall be measured by objective manifestations, and not subjective intent at the time of passage of the law, or laws, affecting Claimant’s right to continue surface mining operations without a permit.” In other words, there must be identifiable evidence or conditions that have a physical basis.
3. Mining Operation: PRC Section 2776 states that “A person shall be deemed to have vested rights if, prior to January 1, 1976, he or she has, in good faith and in reliance upon a permit or other authorization, if the permit or other authorization was required, diligently commenced surface mining operations and incurred substantial liabilities for work and materials necessary therefor.” CCR Section 3951 further states “A vested mining right, in the surface mining context, may include but shall not be limited to: the area of mine operations, the depth of mine operations, the nature of mining activity, the nature of material extracted, and the quantity of material available for extraction.”

PRC Sections 2729 and 2735 defines mined lands and surface mining operations. PRC Section 2729 defines mined lands to include “...*the surface, subsurface, and ground water of an area in which surface mining operations will be, are being, or have been conducted, including private ways and roads appurtenant to any such area, land excavations, workings, mining waste, and areas in which structures, facilities, equipment, machines, tools, or other materials or property which result from, or are used in, surface mining operations are located.*”

PRC Section 2735 defines surface mining operations to mean “...*all, or any part of, the process involved in the mining of minerals on mined lands by removing overburden and mining directly from the mineral deposits, open-pit mining of minerals naturally exposed, mining by the auger method, dredging and quarrying, or surface work incident to an underground mine. Surface mining operations shall include, but are not limited to:*

- (a) *Inplace distillation or retorting or leaching.*
- (b) *The production and disposal of mining waste.*
- (c) *Prospecting and exploratory activities.*”

Thus, evidence of mining activities or operations may include presence of stockpiles, plant operations transportation features (i.e., haul roads, truck scales, conveyors, etc.) and business or administration structures (e.g. office and storage facilities). Production of mined materials, and equipment used for such activity can also be considered as evidence. Prospecting and exploratory activities may include, but not be limited to, corings, trenchings, drill holes for cut samples, special reports about resources, surveys and blueprints for proposed expansion of activities.

4. Authorization for Conduct of Surface Mining Prior to January 1, 1976: In addition, pursuant to CCR Section 3963, part of the findings necessary for vesting is that the lands in question were authorized for mining prior to SMARA. CCR Section 3963 states *“Such evidence shall include, but is not limited to, evidence of any permit or authorization to conduct mining operation on the property in question prior to January 1, 1976, evidence of mining activity commenced or pursued pursuant to such permit or authorization, and evidence of any zoning or land use restrictions applicable to the property in question prior to January 1, 1976.”* No evidence demonstrating authorization to mine was granted from the mid-1940s to January 1, 1976, or to the present date as well.
5. Surface Mining Ordinances No. 2042, 2044, 2075, 3004, and 4467: Since 1979, following the adoption by the County of mining Ordinance No. 2042, five amendments have followed. These ordinances set forth procedures for the review and approval of reclamation plans, issuance of permits to conduct surface mining operations, and posting of bonds to ensure timely and proper reclamation of mined lands (2009 RFD, Exhibit 13). Although areas that were considered vested were exempt from obtaining a permit, no mining operations could be continued without the approval of a Reclamation Plan and financial assurances. In 1979, the County established a surface mining and reclamation ordinance (Ordinance No. 2042; 2009 RFD, Exhibit 13). Ordinance No. 2044, adopted on December 11, 1979, states:

“No person who has obtained a vested right to conduct surface mining operations prior to January 1, 1976, shall be required to secure a permit pursuant to the provisions of this chapter as long as such vested right continues; provided, however, that no substantial changes have been made in any such operation except in accordance with the provisions of this chapter. A person shall be deemed to have such vested rights if, prior to January 1, 1976, he has in good faith and in reliance upon a permit or other authorization, if such permit or other authorization was required, diligently commenced surface mining operations and incurred substantial liabilities for work and materials necessary therefor. Expenses incurred in obtaining the enactment of an ordinance in relation to a particular operation or the issuance of a permit shall not be deemed liabilities for work of materials.

A person who has obtained a vested right to conduct surface mining operations prior to January 1, 1976, shall submit to the granting authority and receive, within a reasonable period of time, approval of a reclamation plan for operations to be conducted after January 1, 1976.

Nothing in this chapter shall be construed as requiring the filing of a reclamation plan for, or reclamation of, mined lands on which surface mining operations were commenced and terminated prior to January 1, 1976.”

This ordinance was amended in 1980 with no change in language (Ordinance No. 2075; 2009 RFD, Exhibit 13). On June 24, 1980, the County adopted Ordinance 3004 which established districts.

On November 4, 1997, El Dorado County adopted Ordinance No. 4467 (Ordinance No. 4467; 2009 RFD, Exhibit 13). Under Section 8.36.060 (Vested Rights) it is stated:

“No person who has established a vested right to conduct surface mining operations as a legal non-confirming use in conformance with chapter 17.20 of the county code prior to January 1, 1976, shall be required to secure a permit to mine, so long as the vested right continues and as long as no substantial changes have been made in the operation except in accordance with SMARA, State regulations, applicable state law, and this chapter. Where a person with vested rights has continued surface mining in the same area subsequent to January 1, 1976, said person shall obtain County approval of a reclamation plan and financial assurances covering the mined lands disturbed by such subsequent disturbed mining. In those cases where an overlap exists (in the horizontal and/or vertical sense) between pre- and post-Act mining, the reclamation plan shall call for reclamation proportional to that disturbance caused by the mining after the effective date of the Act (January 1, 1976).

All other requirements of State law and this chapter shall apply to vested mining operations.”

6. Irrelevancy of Pre-World War II Mining Activities: The cessation of mining activities subsequent to World War II, lasting through the 1990s and, even then, commencing for a brief period without authorization from El Dorado County and without submission and approval of reclamation plans and financial assurances as required by SMARA, coupled with a succession of land owners who did not conduct commercial mining operations during that period, precludes reliance on the pre-World War II historic gold mining operations as a basis for establishing a current vested right to mine on Claimant’s property.
7. Abandonment or Waiver of Vested Rights: The historical record regarding gold mining prior to World War II, and the subsequent conduct of owners of the subject property demonstrates clear and knowing intent by the claimant’s predecessors to waive, abandon, or otherwise forego any vested right that may have pertained to those pre-World War II mining efforts.
8. SMGB’s Conclusion: Based on the evidence and as set forth herein, the SMGB concludes that the claimant has no vested right to mine the property.

At its June 10, 2010, regular business meeting, the SMGB moved adopt its findings and conclusions, and Resolution No. 2010-05, in denial of vested rights to the Big Cut Mine proposed surface mining operation, El Dorado County.

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. This unit implements a field program to inventory California’s pre-SMARA (i.e., before January 1, 1976 when SMARA became effective) historic abandoned mines, provide a preliminary assessment of any hazards observed, and remediate hazards on public abandoned mine lands (AML) to protect human life and safety and any associated wildlife and cultural values. In 2000, the AMLU published *California’s Abandoned Mines: A Report on the Magnitude and Scope of the Issue in the State*. The AMLU also maintains the State’s abandoned mine inventory database and convenes the AML Forum, a

quarterly venue for the public and agencies to discuss abandoned mine issues. (For more information, see the AMLU website at www.consrv.ca.gov/OMR/abandoned_mine_lands.)

Many of the pre-SMARA mines that ceased operations before site reclamation was a State requirement and before various environmental regulations were enacted have been found to be hazardous to people and animals, and a threat to the natural environment. 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 or land-use planning and development.

For years, both local jurisdictions and state agencies have had permitting or regulatory authority over abandoned mines if those mines adversely affected 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). As a non-regulatory State entity that doesn't own or manage lands, the AMLU has taken a lead role in coordinating information regarding the character and type of abandoned mines in California, providing funding, staff, and/or technical expertise to inventory and remediate unsafe AML features, and recently taking the lead among many State landowning agencies to prioritize and coordinate abandoned mine remediation efforts on State-owned lands.



Figure 26. Location of abandoned mines potential, abandoned or remediated mine features in California.

The AMLU estimates that approximately 47,000 abandoned mine sites containing 165,000 mine features exist statewide (Figure 26). 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 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 2 percent are on State or local lands. The AMLU estimates that about 62,000 of the State's 165,000 features present hazardous openings that could present a threat to human life.

In order to tackle 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. Where there is little information, the AMLU employs a watershed approach that begins in the areas with 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 Topographically Occurring Mine Symbols (TOMS) dataset (created by the AMLU by digitally scanning mine symbols on U.S. Geological Survey 7.5' map series topographic maps) forms the nucleus of this work. Each TOMS point is considered a potential mine until a field inventory is completed and mine features are mapped. The California Geological Survey Library also provides a wealth of historical information. Local knowledge is often a valuable resource for historic abandoned mine information. AMLU has established a toll-free telephone number (1-877-OLD-MINE) to easily allow individuals throughout California contribute to the inventory.

The AMLU began remediating physical hazards associated with abandoned mines in 2001, when it helped close a hazardous abandoned mine shaft as a public safety demonstration project. In 2002, the AMLU began funding abandoned mine remediation projects in addition to its inventory work. Since 2006, the AMLU's primary funding sources to remediate physical hazards at abandoned mines come from federal funding and a legislatively created 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)). Techniques that the AMLU has used to remediate hundreds of hazardous abandoned mine openings and associated debris include: wire fencing; backfills; polyurethane foam (PUF) closures; bat-compatible gates, cupolas, and culvert gates; fitting with concrete plugs and steel caps; and demolition and/or removal of unstable structures and trash. All work is conducted in accordance with CEQA or National Environmental Policy Act (NEPA) reviews completed by the land-owning agencies.

The AMLU has also successfully used media events 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. In July 2008, AMLU staff organized a PUF closure of an abandoned mine shaft in the Auburn State Recreation Area that was filmed for an episode of Discovery Channel's "Dirty Jobs" shown in January 2009. In 2008, the AMLU coordinated several other media events featuring the closure of abandoned mine shafts and adits in California that reached a broad audience of television news viewers and newspaper readers.



Figure 27. View of the historic mining town of Bodie.

Some of the AMLU's accomplishments are listed below.

- Between 1997 and October 2009, the AMLU has collected inventory data on more than 2,800 abandoned mine sites and nearly 27,000 features.
- From 2001 through October 2009, the AMLU has helped to remediate more than 625 hazardous abandoned mine features, in partnership with more than two dozen local, State and federal partners. This includes more than 460 features since 2006, using Gold and Silver fees and federal award monies. Since 2002, the AMLU has provided more than \$750,000 to its landowning agency partners to remediate physical hazards on their lands.
- In March 2007, the AMLU coordinated an effort with 14 other State and federal agencies to provide lists of priority AML environmental and physical hazard sites to Senator Feinstein's office and to obtain funding to remediate these sites.
- In June 2009, the AMLU coordinated the successful completion of a two-year characterization and remediation project at Bodie State Historic Park in Mono County in partnership with the State Department of Parks and Recreation and the U.S. Environmental Protection Agency Region 9 Superfund Technical Assessment and Response Team (Figure 27).
- In August 2009, the AMLU released a summary of a two-year inventory it completed of State-owned AML properties. Natural Resources Agency Secretary Mike Chrisman subsequently directed the DOC to take the lead role in prioritizing and coordinating abandoned mine remediation efforts on inventoried State-owned AML sites among the various land-owning agencies, including the collaborative pursuit of any available funding sources.

- In September 2009, the AMLU received an award of nearly \$4 million from the federal Bureau of Land Management (BLM) to remediate hazardous abandoned mines and inventory abandoned mine sites on BLM lands in California. In October 2009, the AMLU received \$993,000 to begin project implementation.
- In October 2009, the AMLU was recognized for its participation in the BLM's "Fix A Shaft Today!" ("FAST!") Campaign—a partnership initiative aimed at eradicating unsafe abandoned mine land features, especially open mine shafts—when the unit was a co-recipient of the BLM's first Reclamation and Sustainable Development "FAST!" Award.
- As California's representative to the National Association of Abandoned Mine Land Programs (NAAML), the AMLU was recently selected to co-host, with Nevada, the 2011 NAAML Annual Conference (the first hardrock, non-coal States to serve as host) providing further opportunities to highlight California's AML issues and successes and raise awareness of AML hazards.

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. These reports commonly take the form of an Executive Officer's report, accompanied by a power point presentation, when appropriate. However, only the Executive Officer's report is regularly provided to the SMGB's stakeholders on the SMGB's website. The SMGB has been frequently approached by industry, professional organizations, regulators, and other interested parties and stakeholders, requesting copies of the power point presentations. In order to maintain the context of the information and presentation, information reports have been prepared and, made available in digital form on the SMGB's website. 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 15.

Table 15 Summary of Published Information Reports			
Information Report No.	Description	Date	Authors
SMGB IR 2007-01	Report on SMARA Lead Agency Performance Regarding Mine Reclamation	June 2007	Stephen M. Testa and David J. Beeby
SMGB IR 2007-02	Report on Backfilling of Open-Pit Metallic Mines in California	January 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	November 2007	Stephen M. Testa and David J. Beeby
SMGB IR 2007-04	A Comparison of Regulatory Surface Mining Programs in the Western United States	September 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	July 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	June 2009	Stephen M. Testa, William Bryant and Jerry Treiman
SMGB IR 2009-07	A Review of Issues Pertaining to Idle Mines under the Surface Mining and Reclamation Act of 1975	Pending	Stephen M. Testa

OBSERVATIONS AND RECOMMENDATIONS

The following observations and recommendations are offered. A comment of their financial funding status is also provided.

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

This 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.

Funding mechanisms for this program remain erratic and unreliable. Since implementation of the A-P EFZ Act heavily relies on General Funds, the SMGB recommends that a steady funding source be developed to support this program.

SEISMIC HAZARDS MAPPING ACT

This Act 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.

Funding mechanisms for this program remain erratic and unreliable. The SMGB recommends that a steady funding source be developed to support this program.

SURFACE MINING AND RECLAMATION ACT

The Surface Mining and Reclamation Act (SMARA) has been amended 28 times since its enactment in 1975. 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) SMARA provides for the conservation of mineral resources.

SMARA has evolved over time and numerous amendments to improve its effectiveness have been enacted. Based on observations of the current statewide implementation of this law, it is apparent that the opportunity for further improvement remains. 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 (i.e., review of reclamation plans and financial assurances, conduct of inspections, fees, etc.) can be minimized or eliminated, and various unintended and adverse consequences of the current statutory and regulatory language can be alleviated.

The SMGB is undertaking a thorough review of SMARA and its effectiveness, and offers the following recommendations for improvement.

Clarification pertaining to definition of idle mines: As of 2009, there were 1,070 reporting surface mines in California. In both 2008 and 2009, 100 mines reported as “Active” but with zero production. Statute defines these mines as “abandoned” at this point, of which 80 of these mines had no production for at least ten years. Another 66 mines reported as “Closed- No

Intent to Resume” in 2009, but have not yet reclaimed. Currently, 97 mines should have IMPs but only 35 have them, and 35 lead agencies (more than 28% of all lead agencies in California) had mines that required IMPs but did not have them in place.

To provide clarity as to the current intent and statutory requirements for idle mines, the SMGB recommends legislative action to provide relief to operators that failed to follow statutory requirements for IMPs.

Assumption of Lead Agency SMARA Authority by the SMGB: Under current SMARA statutes, a local lead agency is primarily responsible for implementation of the Act. When a lead agency does not implement SMARA as required by statute and regulation, the law provides only one remedy: the assumption of the lead agency’s SMARA authority by the SMGB for a minimum period of three years [ref. PRC Section 2774.4]. The process of assumption, in practical terms, generally takes a minimum of six months to complete.

When an individual surface mine operator is in violation of SMARA, and the lead agency does not take required enforcement actions against that operator, the DOC may, under statute, carry out enforcement. As written by the Legislature, a lead agency’s failure to take required enforcement actions against a single operator is a failure of the lead agency to adequately implement SMARA. Thus, the SMGB is required to act to assume at least a portion of the lead agency’s SMARA authority. However, assumption of local authority is a significant action. In the past, the SMGB has been reluctant to act against a lead agency unless there has been a general failure of the lead agency to enforce the requirements of SMARA throughout its jurisdiction, although this reluctance fails to meet statutory standards.

Under current SMARA provisions, the SMGB has the authority to assume lead agency authority for review and approval of new reclamation plans when the SMGB declares a lead agency’s surface mining ordinance to be deficient, or when a lead agency does not have an adopted surface mining ordinance.

The SMGB recommends that the currently mandated timeline for taking action against a lead agency be removed from statute. The timeline for action should be left to the discretion of the SMGB. The SMGB can take into account the particular circumstances of the lead agency and the extent of the agency failures to be corrected.

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 certified 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.

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 it 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 aggregate) 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 done 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 is identified.

Along with changes in statute to facilitate the permitting of mining facilities on designated lands, the criteria for designation must be updated. Currently, a site can be designated if only \$17,000,000 worth of mineral reserves is present. This figure is far too low to represent a "significant" regional resource. The threshold of significance should be raised to an economically viable level such as \$200 million of reserves over a minimum of 100 acres.

Preclude 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 identified by the California Highway Patrol.

California Mineral Resources Plan: In 2006, CGS updated Map Sheet 52, and their accompanying report providing general information about the current availability of California's permitted aggregate resources. Although the statewide and regional information on the map and in this report may be useful to local decision-makers, more detailed information contained in each of the aggregate studies employed in the compilation of Map Sheet 52 was aimed to be used for land-use and decision making purposes. For the 31 aggregate study areas throughout the State, these study areas cover about 25 percent of the State and provide aggregate for about 90 percent of California's population.

It was concluded that in a five-year period (2001-2005), permitted aggregate resources have decreased by about 2.5 billion tons. Also, during this same period, more aggregate study areas had decreases in permitted aggregate resources than increases. Decreases were caused by changes in permitted resource calculations, aggregate consumption, and social and economic conditions leading to mine closures. Furthermore, aggregate price at the plant site and transportation costs have increased significantly in the past five years. Areas throughout the State are experiencing shortages in local permitted aggregate resources and are being forced to transport aggregate longer distances, significantly increasing the FOB cost by the time it reaches its final destination. Areas in very short supply of permitted aggregate resources include Fresno, North San Francisco Bay, Southern Tulare County, and Sacramento County. The shortage of PCC-grade sand in the San Diego and the San Francisco Bay areas has driven up the price in both areas, making importation of sand from Canada and Mexico into these regions competitive.

In the next 50 years, California will need approximately 13.5 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. Only one of the study areas has adequately permitted aggregate resources to meet or exceed its projected 50-year demand.

Due to the inability of local governments to meet their projected 50-year aggregate needs, the SMGB recommends consideration of development of a California Mineral Resources Plan (Plan). The Plan could provide a framework for the mineral industry, legislators, and the public to consider options and make decisions regarding California's mineral needs. The Plan could be updated periodically, and serve to provide basic data and information on California's mineral resources including aggregate availability evaluations and assessments for urban growth, construction, and strategic minerals, while balancing environmental concerns and issues (i.e., water, greenhouse gases emissions, etc.). The Plan could also identify and evaluate existing and proposed statewide demand, management and aggregate availability programs and projects to address the State's aggregate and other mineral resources needs.

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). As part of this mandate, the SMGB reviews and adopts the final work products of the California Geological Survey (CGS). The CGS conducts the scientific investigations of mineral resources, seismology, and geologic hazards. As part of this work, the CGS conducts the Forest and Watershed Geology Program and the Earthquake Engineering Program.

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, CalFire, 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 CalFire, and partially funded through the General Fund.

CGS staff also provides geologic input and advice 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.

Unfortunately, funding for all of the above work continues to decline on an annual basis. This decline is due to reduction of General Fund monies to CGS and CalFire for the review of Timber Harvest Plans, or through funding reductions to our government agency partners. Without steady and reliable funding, Timber Harvest Plan review will continue to decrease and CGS will become more dependent on other departments budgets for funding of interagency agreements to provide the geologic expertise to our government agency partners.

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

Earthquake Engineering Program: The projects in the Earthquake Engineering program that are funded under the Strong Motion Instrumentation Program (SMIP) building permit fee are significantly impacted by the reductions in the construction industry. This means the baseline activities of the program, including the earthquake instrumentation of buildings and ground sites have had to be cut back. This will mean that certain structures will not be instrumented at the time of the next damaging earthquake, and the opportunity to learn about their response will be missed. Other projects in the Earthquake Engineering program are moving forward. The maintenance and data recovery from previously installed ground stations continues, supported by California Emergency Management Agency (CalEMA), and provides key data needed for ShakeMaps. 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. 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.

The SMGB recommends that a steady funding source be devised for the continuance of this program.

Post-Fire Emergency Geologic Mapping Services: CGS provides post-fire emergency geologic mapping services in wildland burned areas to assist in re-vegetation plans, and more importantly, assessment of hazardous debris flow and landslide potential.

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.