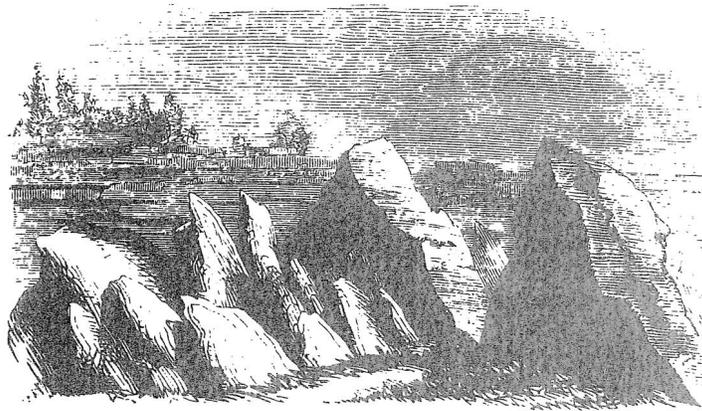


State of California  
Department of Conservation  
MINING AND GEOLOGY BOARD

ANNUAL REPORT  
1984



LIMESTONE AND TRAP DYKE NEAR SONORA.

*a.* Superficial detritus. *b.* Trap dyke. *c.* Limestone.

State of California  
MINING AND GEOLOGY BOARD

ANNUAL REPORT  
1984

**BOARD MEMBERS:**

James A. Anderson-Chairman

Arthur Darrow

John J. Heck

DeWayne Holmdahl

Robert Matthews

Dorothy Steller



1416 9th Street, Room 1326-2  
Sacramento, CA 95814



THE STATE MINING AND GEOLOGY BOARD RECOGNIZES CONTRIBUTIONS  
TO THE STATE OF CALIFORNIA DURING THE 1983-84 FISCAL YEAR  
OF GEORGE BROGAN, ALCIDES FREITAS, TITO PATRI,  
CAROL STADUM, AND KENNETH TOPPING, PAST MEMBERS OF THE BOARD

## ACKNOWLEDGEMENTS

SPECIAL THANKS TO ED FOSTER, DIVISION OF MINES AND GEOLOGY, FOR HIS PORTRAYAL OF MINED LANDS RECLAMATION AND LANDSLIDE HAZARDS, AND TO THE DIVISION OF MINES AND GEOLOGY'S URBAN SMARA AND DRAFTING STAFF FOR THE MAP DEPICTING PROGRESS OF THE CLASSIFICATION-DESIGNATION PROGRAM AND THE 1983 NONFUEL MINERAL PRODUCTION IN CALIFORNIA PIE CHART.



## ABSTRACT

The State Mining and Geology Board has broad policy responsibilities for earth science, mineral resource conservation, mining, and geologic hazards under California's Surface Mining and Reclamation Act (SMARA). The Board also establishes policy that guides the implementation of the Alquist-Priolo Special Studies Zones Act (APSSZA), which addresses the hazards of ground rupture from active faulting. During the 1983-84 fiscal year, the Board took a number of actions in fulfilling these responsibilities.

During 1984, the Board continued work on the designation of aggregate resources in two major metropolitan areas and initiated the process in seven other regions. The Board designated regionally significant sand and gravel deposits in the western San Diego County region and anticipates transmitting the completed designation report to affected lead agencies in late 1984.

Designation regulations for the Orange County-Temescal Valley and San Gabriel Valley regions were approved by the Office of Administrative Law and incorporated into the California Administrative Code.

Six nonurban classification reports were reviewed and transmitted to affected lead agencies (El Dorado, Placer, and San Bernardino Counties) for their action pursuant to SMARA. At the request of the County of San Bernardino, the Pluess-Stauffer classification report was revised by the State Geologist, reclassifying certain deposits to significant mineral resource zones (MRZ-2).

The composition of the Mining and Geology Board was amended by the Legislature to require one of its nine members to be a registered engineer with background and experience in chemical engineering and hazardous waste disposal.

Board regulations implementing the Alquist-Priolo Special Studies Zones Act and the Surface Mining and Reclamation Act were revised for compliance with the Administrative Procedures Act, which requires that regulations meet certain standards.



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## Part I.

### INTRODUCTION

#### A. State Mining and Geology Board, Organization and Responsibilities

The State Mining and Geology Board is composed of nine members appointed by the Governor for four-year terms. By statute, the Board is comprised of individuals with specified professional backgrounds in geology, mining engineering, environmental protection, soil engineering, urban planning, landscape architecture, mineral resource conservation and seismology, and one public member.

The Board has broad policy responsibilities under the Surface Mining and Reclamation Act of 1975 for establishing and maintaining State policy for surface mining and reclamation and for the conservation and development of mineral resources.

The Board represents the State's interest in the development of 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 policy for the State's geological survey, the Department of Conservation's Division of Mines and Geology, is established by the Board. 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.

The Board has policy responsibilities for the Alquist-Priolo Special Studies Zones Act. Under this Act, hazardous fault zones are delineated by the State Geologist. This information is provided to local government to assure that structures for human occupancy are not built across such faults.

The Mining and Geology Board has new responsibilities for developing guidelines and priorities that enable the Department of Conservation's Division of Mines and Geology to carry out the recently enacted legislation creating the Landslide Hazard Identification Program (AB 101, Moore, Statutes of 1983).

To enable the Board to meet its responsibilities, five permanent committees have been established. These include the Policy Committee, the Classification-Designation Committee, the Reclamation Committee, the Geohazards Committee, and the Intergovernmental Relations Committee. The Board is assisted by a four-person staff.

## Part II.

### MAJOR BOARD ACTIONS

#### A. Mineral Resource Conservation

In the early 1970's, it was estimated that California could face a \$17 billion loss of mineral resources by the year 2000 if present land-use practices continued. The primary contributors to this situation were land-use decisions made in ignorance of the location and importance of mineral resources. This projected loss represents almost nine years of the State's current mineral production.

At the same time, the issuance of permits for new mining operations faced increasing opposition because of past mining practices which disregarded our environment.

California's Surface Mining and Reclamation Act, or SMARA, resolved these two seemingly contradictory demands -- the need for a continuing supply of mineral resources and the assurance that mining's adverse impacts would be eliminated. SMARA created a program that assures the reclamation of mined lands and provides mineral information necessary for local management of mineral resources needed for the future.

##### 1. Summary of classification-designation program

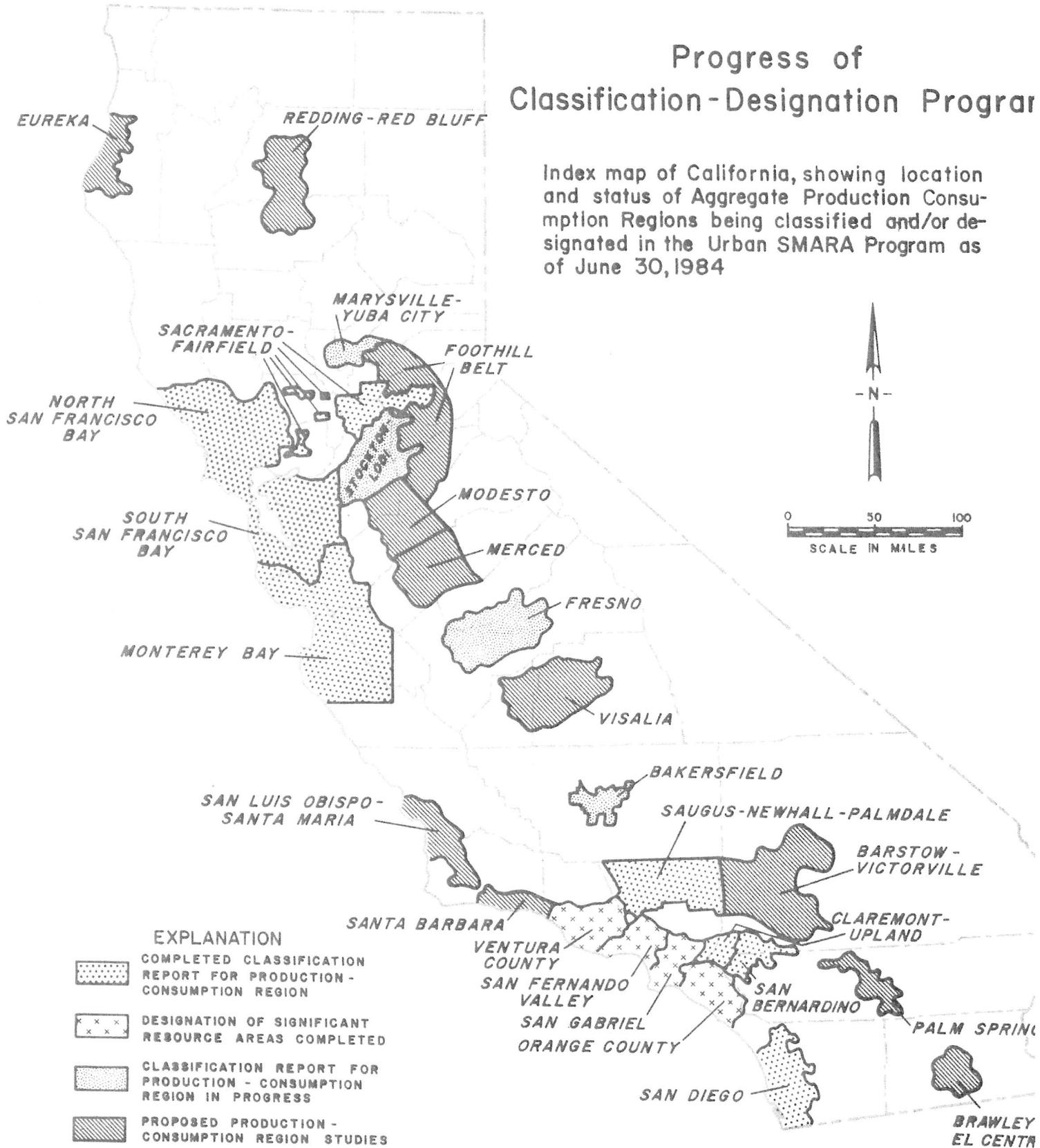
To maintain our existing community structure, as well as to provide for its continued growth, adequate supplies of a variety of mineral commodities used in the construction of buildings, roads, and other structures must be available at a reasonable cost. Yet, urban expansion itself has been a major cause of a decline in the availability of such mineral commodities. For example, in many areas, pressure from competing land uses has severely reduced or completely eliminated access to construction-quality sand and gravel, cement quality limestone, and clays used in building products. Other highly mineralized areas, such as the Sierra Nevada foothills, are being subjected to these same land-use pressures. The loss of these deposits has occurred because land-use planning decisions often have been made with little, if any, knowledge of the location and economic importance of these resources.

The Act's mineral resource conservation objective is achieved by means of a mineral inventory and economic assessment process termed "classification-designation". Information on the location of important mineral deposits is developed by the Department of Conservation's Division of Mines and Geology through the process of mineral land classification. This information is used by the Mining and Geology Board in designating those deposits that are of economic significance to a region, the State, or the nation. In turn, local government uses this information in developing mineral resource management policies and in making land-use decisions to ensure the conservation and development of these resources.

Since 1980, when the designation process was first initiated, the Board has designated over 88,000 acres of construction-quality aggregate in the Los Angeles and San Diego metropolitan areas. These designated resources will provide these areas with their 50-year needs. The map on page 3 shows the progress of this program to date in the urban areas of the State.

# Progress of Classification-Designation Program

Index map of California, showing location and status of Aggregate Production Consumption Regions being classified and/or designated in the Urban SMARA Program as of June 30, 1984



2. Designation of Regionally Significant Construction Aggregate Resources

During 1984, the Board continued work on the designation of aggregate resources in two major metropolitan areas and initiated the process in seven other regions. The following briefly summarizes these actions.

a. Western San Diego County Region

A major activity of the Board and its staff during the past year has been the designation of aggregate resources in the western San Diego County region. This included completion and certification of an environmental impact report (EIR), conducting a public hearing in San Diego, final selection of the areas designated as being of regional significance, and submittal of the approved designation regulations to the Office of Administrative Law (OAL). The Board anticipates transmitting the completed designation report to lead agencies in the San Diego region in late 1984.

The San Diego designation covered the largest single area that the Board has considered to date. This region encompasses the highly urbanized western portion of the county, including the cities of Oceanside, San Marcos, Escondido, San Diego, El Cajon, and Chula Vista.

After considering public and lead agency recommendations and background data provided in the EIR and classification report, the Board designated approximately 7.2 billion tons of construction aggregate as being of regional significance. These designated aggregate resources are located in a number of areas throughout the region, such as the San Luis Rey River, Pauma Valley, San Pasqual Valley, Kearney Mesa, the San Diego River, the Tijuana River, and the Border Highlands.

The San Diego region has an estimated 50-year need for construction aggregate of 760 million tons. Existing aggregate reserves (resources permitted for mining) for the region are approximately 430 million tons, an amount sufficient to supply the region for 32 years.

The San Diego area faces difficulties in meeting future demand for construction aggregate due to the uneven geographical distribution of resources throughout the region, a shortage of natural sand available to serve the metropolitan area, and the high rate of urbanization occurring in the region.

b. Orange County-Temescal Valley and San Gabriel Valley Regions

Designation regulations for these two regions were approved by the Office of Administrative Law and filed with the Secretary of State in late 1983. A report summarizing the Board's designation action and the location of the resource areas was subsequently transmitted to the 14 lead agencies in these two regions.

c. San Francisco-Monterey Bay Area

Special Report 146, Parts I-IV, classifying construction aggregate resource areas in the San Francisco Bay-Monterey Bay Area, was received from the Division of Mines and Geology in January 1984.

This action is significant because it marks the completion of the first classification report for a major metropolitan area in northern California. The report encompasses three production-consumption regions: north San Francisco Bay; south San Francisco Bay; and Monterey Bay. Twelve counties are included within these three regions -- Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma.

During 1984, the Board held workshops on the report in Oakland, Monterey, and Napa. The purpose of these workshops was to provide the public with information on the aggregate resources in these regions and to discuss the need to proceed with designation. The Board also sponsored field trips to these regions in conjunction with the workshops.

In August 1984, the Board formally accepted Special Report 146 for transmittal to the lead agencies in the affected study areas. The Board also decided to proceed with the designation of aggregate resources in these three regions. The Board anticipates completing this designation action in late 1985.

3. Lead Agency Response to the Transmittal of Designation Information

a. Ventura County Mineral Resource Management Program

Once the Board completes and formally transmits a designation report to a lead agency, SMARA requires that the agency develop mineral resource management policies for incorporation into its general plan. These policies are required by SMARA to recognize the designation information, assist in the management of such areas, and emphasize the conservation and development of identified mineral deposits.

Beginning last year, the Planning Division of the Ventura County Resource Management Agency undertook to revise the County's Conservation and Open Space elements of the General Plan. This was in response to the transmittal of the Ventura County designation in June 1982. In March 1984, the County submitted the Draft Mineral Resource Program (MRMP) to the Board for its review and comment pursuant to the provisions of SMARA. Although the Board did have a few general comments on the plan, the Board believes that the MRMP is a major step forward in the need to protect aggregate resources in the County. Ventura County has indicated that the MRMP will be considered for final approval in late 1984.

4. Board Revises Classification Report Transmittal Policy

Until this year, the Board had maintained a general policy that when designation was anticipated in a region, the mineral lands classification report would not be formally transmitted to the respective lead agencies. Such transmittal would only occur after the accompanying designation action was completed.

In response to comments received from industry and other public representatives, the Board revised this policy. The Board now formally transmits to the appropriate agencies a final classification report as soon as it is approved and available for distribution. The Board revised this policy because of delays that occur between completion of the classification reports and the respective designation actions, and in response to concerns that lead agencies should be required to utilize the classification information as soon as it is available because of the rapid rate of urbanization in many regions.

As a result of this policy change, the Board transmitted classification reports for the following regions during 1984: Claremont-Upland; San Bernardino; Saugus Newhall; Palmdale; north San Francisco Bay; south San Francisco Bay; and Monterey Bay.

5. Completion of Nonurban Classification Reports

The past year saw significant progress in the completion and transmittal of classification reports covering nonurban areas. The Board has assigned the highest priority for classification in the nonurban program to the Sierra Nevada Foothills and the California Desert Conservation Area. This program is focused on these areas because of their known mineral wealth and because both regions are subject to land-use actions that could conflict with the development of important mineral resources -- the Sierra Nevada Foothills because of urbanization, and the California Desert Conservation Area because of on-going federal planning and land use decisions.

a. Sierra Nevada Foothills Area

During the past year, the Board has accepted and formally transmitted classification reports for the Placerville, Georgetown, and Sutter Creek U.S. Geological Survey 15-minute Quadrangle map sheets. These reports were prepared by the Department of Conservation's Division of Mines and Geology.

The Placerville map sheet, which covers part of El Dorado County, served as the pilot study for the nonurban program. The Placerville Quadrangle covers a portion of the Mother Lode gold belt and other highly mineralized areas of the Sierra foothills. This area has been subject to a high level of rural residential development.

The Placerville Quadrangle report was accepted by the Board in November 1983, after the report was brought into conformance with the revised guidelines for the nonurban classification program. The County of El Dorado, the principal lead agency for this area, began working on a revision of the County's General Plan in Spring 1984. The County has indicated that it will incorporate other classification reports into this process as they become available from the Board.

The second nonurban classification report completed for the Sierra Nevada Foothills area was the Georgetown 15-minute Quadrangle. This report was accepted by the Board and transmitted to lead agencies in the study area in January 1984.

The Georgetown Quadrangle covers portions of Placer and El Dorado Counties. This quadrangle is located immediately north of the Placerville Quadrangle. Major conclusions of this report include:

- A 16-mile segment of the well-known Mother Lode gold belt extends through the quadrangle. Information obtained during the preparation of this study indicates that this area still has a significant potential for gold production.
- Placer gold deposits occur in both modern and ancient stream channel deposits exposed in several portions of this quadrangle. Further study is needed to confirm the economic significance of these deposits.
- Potentially significant deposits of three industrial minerals, limestone, talc, and asbestos, were identified in the study area.

The Georgetown classification report concluded that the study area appears to have a highly favorable mineral potential, particularly for gold.

The third nonurban classification report completed for the Sierra Nevada Foothills area was the Sutter Creek 15-minute Quadrangle. The Board accepted this report in August 1984.

The Sutter Creek Quadrangle covers portions of Placer and El Dorado Counties. The completed Georgetown Quadrangle is located immediately east of this study area. Major conclusions of this report include:

- A significant deposit of high calcium, industrial-grade limestone is located in the study area. A large portion of this deposit remains available for mining.
- The Auburn Quadrangle has a three-square-mile area that contains a chromite-rich deposit of ultramafic rock. This deposit, although not presently in production, has a significant mineral potential.

- The Ophir gold mining district, a historic mining area, has been classified as containing significant inferred mineral resources. Existing and planned urbanization poses a threat to mineral development in this area.
- Potentially significant deposits of gold and chromite may be present in modern and ancient stream channels located throughout the study area. Additional exploration is necessary to determine the importance of these deposits.

b. California Desert Conservation Area (CDCA)

During the past year, the Board also accepted and formally transmitted nonurban classification reports for three areas in the CDCA, the Kelso, Mescal and Halloran Springs 15-minute Quadrangles. These reports were prepared by the Department of Conservation's Division of Mines and Geology.

The Kelso map sheet encompasses approximately 250 square miles of land in the eastern Mojave Desert. Land-use jurisdiction in this area is the responsibility of the County of San Bernardino and the U.S. Bureau of Land Management. Major findings of this report include:

- Three distinct geologic terranes in the Kelso Quadrangle contain base and precious metal deposits of hydrothermal origin. Deposits within these terranes have the potential for being of economic significance.
- One tungsten deposit of contact metasomatic origin was identified in the Kelso Quadrangle. The economic significance of this deposit was not determined.
- Volcanic cinders are presently being mined in this quadrangle. Other industrial minerals that may be of economic significance in the Quadrangle are carbonate rock and quartzite.
- Division staff concluded that the Kelso quadrangle appears to be favorable in terms of potential industrial minerals production.

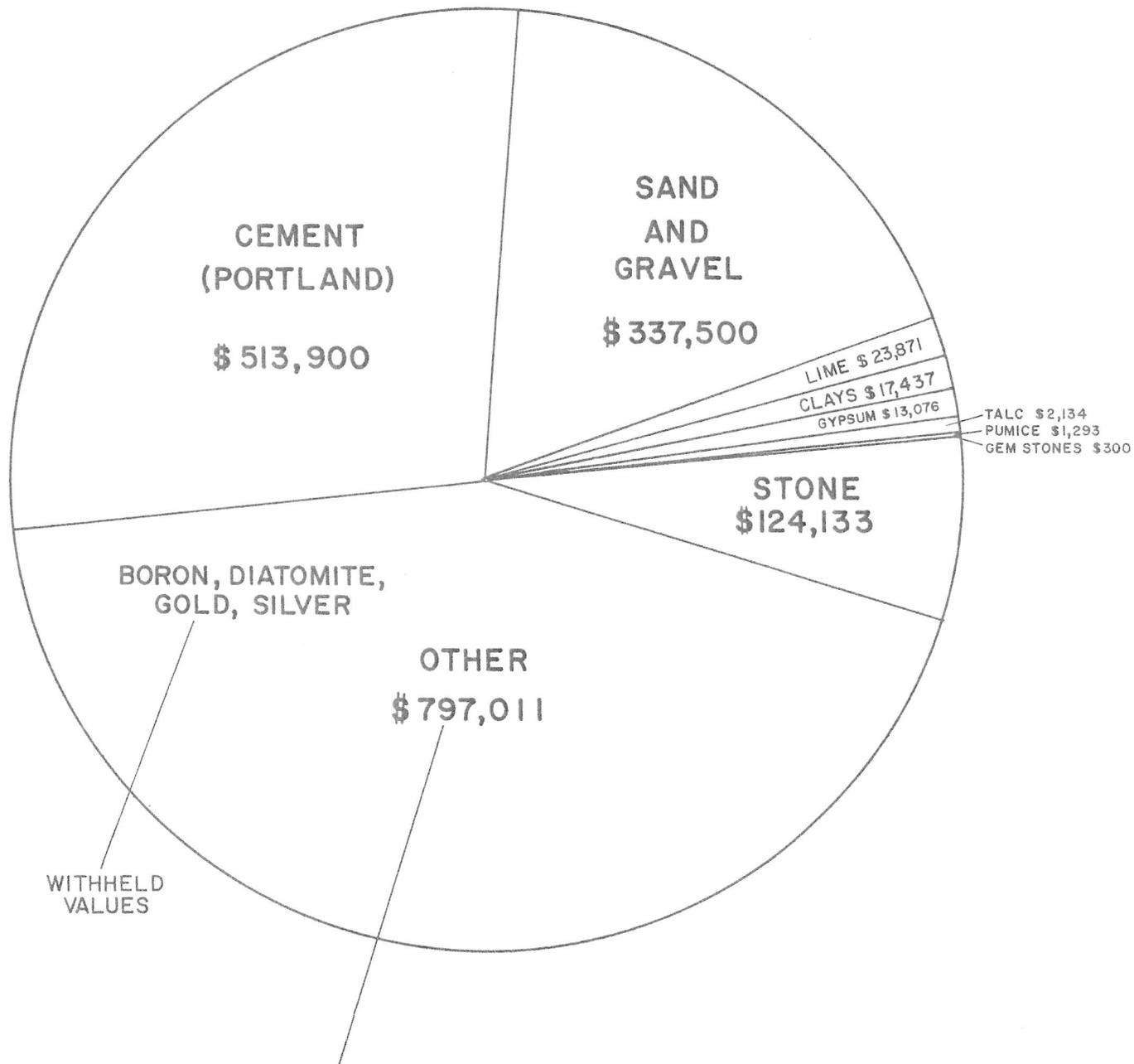
The second 15-minute quadrangle map sheet completed in the CDCA is for the Mescal Range. This quadrangle is located immediately north of the Kelso Quadrangle. Land-use jurisdiction in this area is the responsibility of the County of San Bernardino. The community of Mountain Pass is located in the northeastern corner of the sheet. Major findings of this report include:

- The Kelso Quadrangle contains the largest known deposit of rare-earth elements in the free world. Rare-earth minerals are presently being mined in this quadrangle near Mountain Pass.

# 1983 NONFUEL MINERAL PRODUCTION IN CALIFORNIA

## (Value in Thousands of Dollars)

### \$ 1,830,655



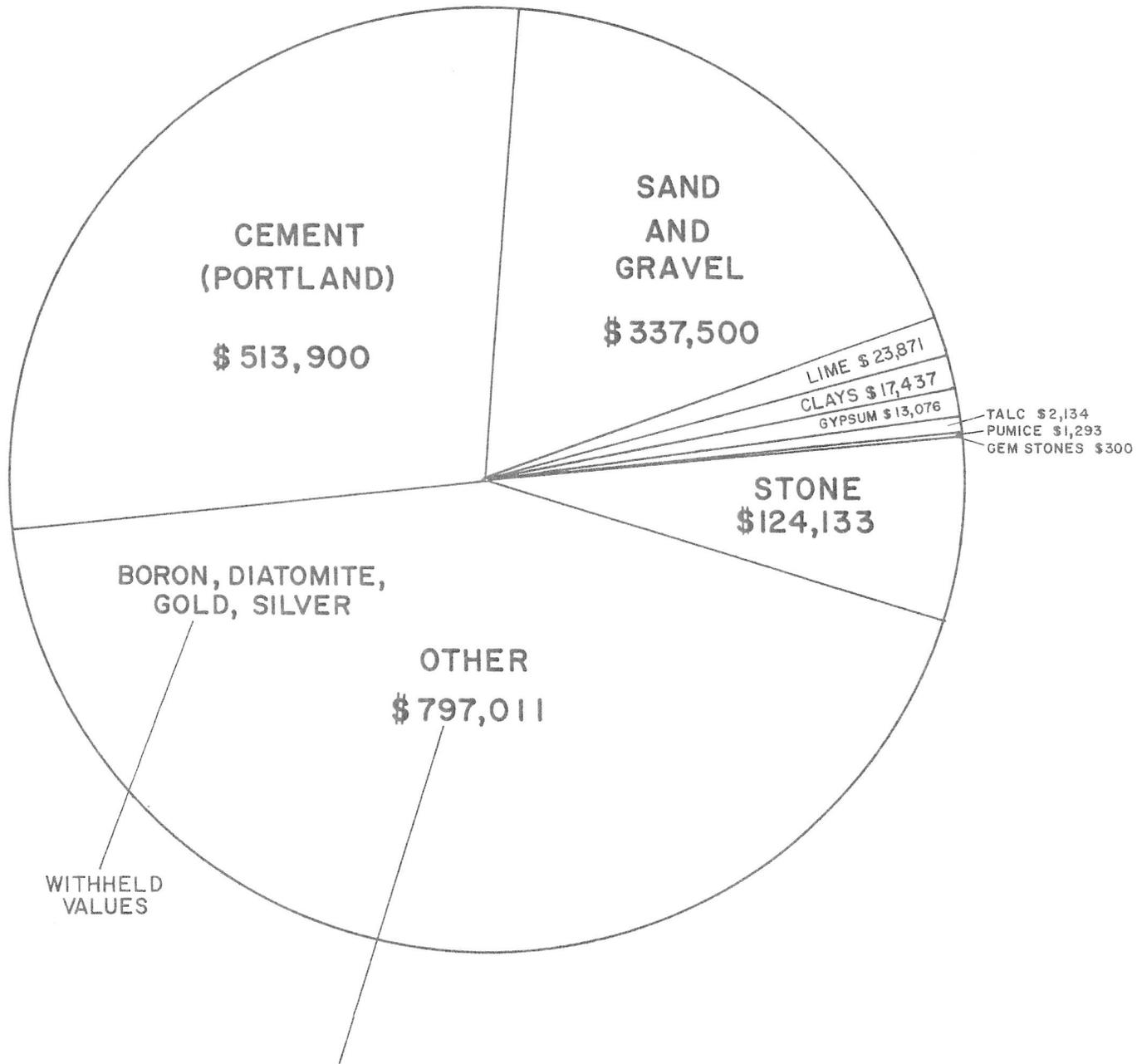
Combined value of asbestos, calcium chloride, carbon dioxide, cement: masonry, copper, feldspar, iron ore, lead, magnesium compounds, molybdenum (1982), peat, perlite, potassium salts, rare-earth concentrates, salt, sodium carbonates, sodium sulfate, tungsten ore and concentrate, wollastonite, and withheld values.

Source: California Geology, October 1984, John L. Burnett, Geologist

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- The Mescal Quadrangle contains several tungsten-tin-copper and lead-zinc-silver deposits that may be of potential economic significance.
- Two industrial minerals, carbonate rock and volcanic cinders, are present in economic concentrations at locations in this quadrangle. Potentially economic sources of these minerals were also noted during the course of this study.

The third 15-minute quadrangle map sheet completed in the CDCA is for Halloran Springs. This quadrangle is located immediately west of the Mescal Range map sheet. Land-use jurisdiction in this area is the responsibility of the County of San Bernardino. Major findings of the report include:

- The Halloran Springs Quadrangle contains significant and potentially significant deposits of four industrial minerals: carbonate rock, quartzite, talc, and volcanic cinders.
- Several geologic terrains were identified in the study area that have potential significance for gold and silver.
- Several small copper-bearing deposits were identified in the Halloran Springs Quadrangle.

#### 6. Classification Reports Prepared in Response to Petitions

Mineral deposits threatened by incompatible land uses that may prevent mining may be brought to the Board's attention by petition. To qualify for a petition, the subject deposit(s) must meet a certain economic threshold and be faced with an imminent land-use threat.

As with all other classification reports, lead agencies are required by SMARA to incorporate this information into the local general planning process.

During the past year, the Board accepted one new petition and transmitted a revision of an earlier petition classification report.

##### a. Black Swan Mine placer gold deposit, Nevada County

In November 1983, the Board accepted a petition from Black Swan Associates for the classification of a 72-acre site near the community of Mooney Flat in Nevada County. This site contains a Tertiary gravel deposit of the ancient Yuba River. The petitioner is considering mining the property for construction aggregate and for gold.

The Black Swan Associates petitioned the Board for classification because of denials by Nevada County to rezone the site to a mineral extraction designation. An application for a permit to mine this property was also denied by Nevada County prior to the submittal of the petition.

A draft copy of the Black Swan Mine petition classification report was submitted to the Board's Classification-Designation Committee in June 1984. At the suggestion of the committee, acceptance of the report was deferred until a test sampling program, conducted by the petitioner, was completed on the subject parcel.

b. Revision of Pluess-Staufer Classification Report, Lucerne Valley, San Bernardino County

In November 1983, the County of San Bernardino requested that the State Geologist revise the original classification report for the Pluess-Staufer Company's limestone deposit in Lucerne Valley. The purpose of this revision was to provide the County with additional information substantiating the location of limestone deposits not classified as being significant (MRZ-2) in the original report. The original report, transmitted to the County in November 1982, was prepared because of pending land-use developments that threatened the continued mining of this resource.

This revision included the reclassification of deposits in the northwestern corner of the study area to significant mineral resource zones, or MRZ-2. The boundaries of other mineral resource zones in the petitioned area were also revised.

The revised Pluess-Staufer classification report was transmitted by the Board to the County of San Bernardino in August, 1984.

7. Local Agency Use of Classification Reports

a. General Plan Revisions

Once a classification report has been accepted and transmitted by the Board to local lead agencies (cities and counties), SMARA requires that these agencies establish mineral resource management policies in their general plans that (1) recognize the mineral information provided by the classification process and (2) emphasize the conservation and development of the identified mineral deposits. The Act requires that agencies incorporate these policies into their general plans within 12 months of receiving the classification report.

The intent of these actions is to ensure that mineral resources are considered in local land-use planning decisions.

- The Mescal Quadrangle contains several tungsten-tin-copper and lead-zinc-silver deposits that may be of potential economic significance.
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The intent of these actions is to ensure that mineral resources are considered in local land-use planning decisions.

During the past year, several lead agencies have revised their general plans in response to the transmittal of classification reports. The following summarizes some of the planning actions taken by local agencies in the past year.

Orange County: In April 1984, the Environmental Management Agency of Orange County completed a new Resources Element to its General Plan. This element is a revision of the existing General Plan's Open-Space and Conservation Elements. Included is a natural resources element that addresses construction aggregate resources. This section incorporates information contained in the classification report for the Orange County-Temescal Valley region. Topics addressed in the plan include the sources of aggregate material available to serve the Orange County area and estimates of future aggregate demand.

The County has also indicated that it is planning to incorporate classification-designation information into the local community plans where appropriate.

Placer County: In June 1983, the Board transmitted a classification report resulting from a petition for the Joe Chevreux Company construction aggregate properties near Lake Combie in Nevada and Placer Counties. The Chevreux Company originally petitioned the Board for classification because of increasing urbanization in the vicinity of their Lake Combie mining operations.

Following transmittal of the completed petition classification report, Placer County began preparing a mineral resource conservation plan for incorporation into the County's existing Open-Space and Conservation Plan. Major elements of this new plan include a complete inventory of existing mining properties in the County, adoption of a new Special Purpose Combining zone to protect resource areas, and revised mineral resource goals and policies. In addition to the Chevreux Report, this new plan incorporates the Georgetown 15-minute Quadrangle classification report and other mineral information provided by the Department.

The County's Mineral Resource Conservation Plan was subsequently adopted in September 1984.

El Dorado County: In early 1984, the El Dorado County Planning Department began developing mineral resource policies to be incorporated into the Open-Space and Conservation Element of the County's General Plan. This program was initiated in response to the Board's transmittal of the Placerville and Georgetown 15-minute Quadrangle classification reports, and in anticipation of other classification reports presently being prepared.

The County has formed a task force and hired a planning consultant to assist in the development of these new policies.

San Bernardino County: The San Bernardino County Planning Department has had an on-going program of incorporating mineral lands classification information into the general plan for some time. This program includes use of a mineral resource zone for classified lands and provisions for a buffer zone around these properties.

b. Other Uses of Classification Information

Although not mandated by SMARA, information available in classification reports is being used increasing by local agencies in planning studies and permit decisions. For example, during the past year, mineral resource information and estimates of future aggregate demand developed by the Department's classification program was used in environmental impact reports for major projects in two Northern California counties.

The first of these projects was a permit for a proposed construction aggregate quarry located in southern Alameda County. One of the significant issues addressed in the environmental impact report (EIR) for this project was whether there was sufficient need for the proposed quarry. The recently completed San Francisco Bay Area classification report provided important background information on projected construction aggregate consumption in the region and the location of alternative sources of high-quality aggregate available to serve the same geographical area. This information could not have been obtained without a substantial amount of research by the lead agency.

Sacramento County planning officials also used a classification report this year during the preparation of an EIR for the conversion of an existing mineral reserve area to commercial uses. In this particular case, a preliminary copy of the classification report for the Sacramento Region was used as the basis of an evaluation of the remaining supplies of construction aggregate in the Sacramento area.

The Board believes that this is an important use of the information developed by this program and encourages local agencies to utilize it to the fullest extent.

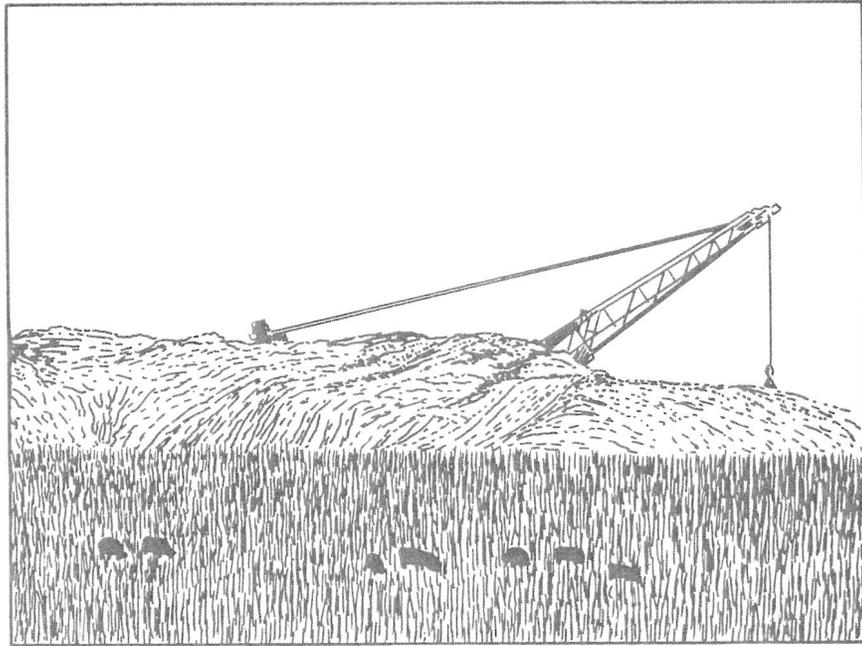
B. Mined Lands Reclamation

1. Summary of Reclamation Program

SMARA also provides for a cooperative State and local program to assure that the adverse environmental impacts of mining are minimized or eliminated and that mined lands are reclaimed to a usable condition.

This is accomplished by a cooperative planning process that involves the mine operator, local government, and the State. Local agencies adopt mining ordinances that provide for the issuance of permits and approval

of mine operators' reclamation plans. Standards that address local conditions and concerns are incorporated into these ordinances. In turn, all such ordinances are certified by the Mining and Geology Board, prior to becoming effective, to assure conformance with the Act's requirements.



*"Mined Land Reclamation" courtesy of Ed Foster*

Technical assistance for the preparation, review, and implementation of reclamation plans is provided to both lead agencies and mine operators by the Department of Conservation's Division of Mines and Geology.

## 2. Reclamation Conference

Planning for a mined lands reclamation conference scheduled to be held at Asilomar in September 1984, continued throughout the 1983-84 fiscal year. This conference, "Productive Second Uses of Mined Land", was sponsored jointly by the Institute for the Human Environment and the California Department of Conservation, its Division of Mines and Geology, and the State Mining and Geology Board.

The conference examined a wide variety of post-mining uses to which mined lands can be reclaimed. These uses include agricultural and timber production, recreation, and commercial and residential development.

Representatives from the real estate and mining industry, land-use consultants, governmental agencies, and academia participated in workshops during this 4-day event.

The conference was organized to encourage the exchange of information on "state-of-the-art" reclamation planning and techniques between participants active in reclamation, land development, and land-use planning and regulation. It follows an earlier "Mined Land Reclamation Workshop" hosted by the Board, Department, and Division in 1980. Such conferences and workshops fulfill part of the Board's responsibility to encourage the achievement of SMARA's reclamation objectives in California.

### 3. Ordinance Certification Process

Local "lead" agencies with active surface mining operations in their jurisdictions are required by SMARA to adopt ordinances implementing the Act's permit and reclamation plan requirements. The Mining and Geology Board provides guidance to aid local government in fulfilling this responsibility.

SMARA also requires the Board to review each lead agency ordinance that implements the Act and to certify that each such ordinance is in accordance with State policy, i.e., if it meets or imposes requirements more stringent than the surface mining and reclamation policies established by the Board. In the absence of a certified ordinance, the authority to approve the reclamation plans passes from the local lead agency to the Mining and Geology Board.

Certification ensures that each ordinance contains a basic core of procedural requirements, consistent with State policy, for the review and approval of reclamation plans and the issuance of permits to conduct surface mining operations. It remains the responsibility of each lead agency to utilize its ordinance to achieve the purposes of the Act in general, and in particular, to ensure that reclamation plans are prepared and approved for all lands disturbed by surface mining operations after January 1, 1976.

To date, the Board has certified ordinances from 87 lead agencies. These agencies include 57 of the State's 58 counties -- San Francisco County has no mining, thus is not considered to be a lead agency -- 29 cities, and BCDC, the lead agency for mining in the San Francisco Bay and Suisun Marsh.

The number of agencies that have active surface mining in their jurisdiction may be much greater than presently identified. To address this problem, the Board initiated a program to identify those agencies which may be lead agencies. This has entailed individual contacts with each of the cities in the State, comparing computer lists of active mines in the State with jurisdictional boundaries, and "word-of-mouth" leads. The Board hopes that this effort will bring all lead agencies and mine operators into compliance with the law in a very short time.

## C. Geohazards

### I. Summary of Board Responsibilities for Geohazards in California

California's propensity for geologic hazards -- earthquakes, landslides, volcanism -- underscores the importance of understanding these phenomena and their potential effects upon our society. In 1973, California's Division of Mines and Geology estimated that the cost of these hazards from 1970 to 2000, if current land-use practices continue, would amount to \$38 billion. To foster a better understanding of these hazards, the Mining and Geology Board represents the State's interest in developing and disseminating related geologic information through the State's geologic survey -- the Division of Mines and Geology.



*"California Landslide" courtesy of Ed Foster*

The Board is also charged with more specific responsibilities under such laws as the Alquist-Priolo Special Studies Zones Act and the recently enacted Landslide Hazard Identification Act.

The Alquist-Priolo Special Studies Zones Act provides for the mapping of active faults by the Division of Mines and Geology under policies established by the Board. Since this program began in 1974, over 300 maps have been issued that zone the active segments of all of the principal faults and most of the other active faults in the State. Maps of these faults -- Special Studies Zones -- are provided to local government for their land-use planning and decision making. The Act prohibits construction of structures for human occupancy, as defined, across the trace of an active fault.

The Landslide Hazard Identification Act was chaptered in September 1983, becoming effective January 1, 1984. This Act provides for a State-local cooperative mapping program to identify landslide-prone areas in the path of urbanization. Mapping of these areas by the Division of Mines and Geology is directed by priorities and guidelines established by the Board. A pilot program to map five areas in the Los Angeles and San Francisco metropolitan areas in the 1984-85 fiscal year was endorsed by the Board in August 1984.

#### D. Legislation and Regulations that Affect Board Policies and Activities

##### 1. Board Sponsors Legislation Changing the Composition of its Membership

The State Mining and Geology Board is composed of nine members appointed by the Governor for four-year terms. By statute, the Board was comprised of individuals with specified professional backgrounds in geology, mining engineering, environmental protection, soil engineering, urban planning, landscape architecture, mineral resource conservation and seismology, and one public member.

The Board has broad responsibilities for establishing and maintaining State policy for surface mining and reclamation and for the conservation and development of mineral resources.

In establishing State policy for mined land reclamation, the Board must also consider the disposal of mine wastes, including those that are hazardous. However, the existing composition of the Board did not provide the necessary technical expertise for considering this problem. The Board, at its February 25, 1984, meeting unanimously endorsed the idea of including a member with this expertise on the Board.

Senate Bill 1907 (Royce -- Chapter 735, Statutes of 1984), amended the requirement that one member be a registered civil engineer with background and experience in soil engineering to, instead, require one member of the Board be a registered engineer with background and experience in chemical engineering and in hazardous waste disposal.

The change is effective upon expiration of the term of the member who is a registered civil engineer with background and experience in soil engineering.

2. SMARA Amended to Address Potential Damage of State Highway Bridges by Instream Mining

SMARA was amended by AB 1110 (Areias -- Chapter 254, Statutes of 1984) this year to provide the means to identify areas where surface mining operations could pose potential threats to state highway bridges.

The Board, together with the Department of Conservation's Division of Mines and Geology, worked with the author, CalTrans, and the mining industry to develop language that would resolve a recurring problem of damage to State bridges from stream erosion attributable to instream mining without unduly delaying the permit process.

The final result, adding Section 2770.5 to SMARA, requires that lead agencies notify CalTrans upon receipt of an application for the issuance or renewal of a permit to conduct surface mining operations in certain situations. Specifically, notification would be required whenever surface mining operations are proposed in the 100-year flood plain of any stream as shown in Zone A of Flood Insurance Rate Maps issued by the Federal Emergency Management Agency and are within one mile, upstream or downstream, of any State highway bridge.

CalTrans would have a period of 45 days in which to review and comment on the proposal with respect to potential damage to a State highway bridge. The lead agency could not issue or renew a permit until CalTrans has submitted its comments or until after 45 days from the application filing date, whichever occurs first.

The 45-day review period would run concurrently with the normal permitting and CEQA review processes, thus could not be expected to unduly delay the project.

AB 1110 is intended to allow CalTrans to provide early input to such proposed mining projects, and to insert conditions in the permit language to mitigate potential detrimental impacts on State highway bridges.

These new provisions become law effective January 1, 1985.

3. Board Regulations Implementing the Alquist-Priolo Special Studies Zones Act and the Surface Mining and Reclamation Act Revised for Compliance with the Administrative Procedures Act

Rulemaking files for the amendment of regulations in Title 14, Division 2, Chapter 8, Subchapter 1, Article 3 (Policies and Criteria of the State Mining and Geology Board with Reference to the Alquist-Priolo Special Studies Zones Act) and Article 1 (Surface Mining and Reclamation Practice) were filed with the Office of Administrative Law (OAL) in December 1983 and April 1984, respectively.

Review of these regulations and the subsequently adopted amendments was required by the Administrative Procedures Act, which was enacted to ensure, in part, that existing regulations conform to certain standards. These standards include necessity, authority, clarity, consistency, reference, and nonduplication.

In June 1984, the Board withdrew amendments to its regulations in Article 3, implementing the Alquist-Priolo Special Studies Zones Act (APSSZA), to correct problems with necessity and clarity, summarized in correspondence from OAL. These regulations were amended further to address these issues, and, following a 15-day public review period, were re-adopted on August 27, 1984, and re-submitted to OAL in September 1984. OAL subsequently approved these regulations on October 8, 1984.

Regulations in Article 1, implementing the Surface Mining and Reclamation Act, following review by OAL, were withdrawn by the Board in October 1984 in order to address further areas of concern. These regulations are scheduled for readoption and subsequent resubmittal to OAL in early 1985.