

ALTERNATIVE SOURCES OF AGGREGATE

Introduction

Potential sources of aggregate, in addition to the alluvial sand and gravel deposits classified in this report as MRZ-2, occur within and near the Western Ventura County P-C Region. These sources include resources in adjacent P-C regions, areas underlain by Tertiary-aged sedimentary rocks, crystalline volcanic rocks, Quaternary-aged alluvium and fan deposits, and offshore sand and gravel deposits.

Except for the resources in adjacent P-C regions, too little is known about the physical and chemical rock qualities (see Part I, "Overview of Aggregate") of alternative sources of aggregate to permit even crude resource estimates. However, a general discussion about the potential resources, their occurrence, and factors controlling their utilization is presented in the following section.

Sand and Gravel Resources of Adjacent P-C Regions

RESOURCE ESTIMATES

The resource estimate given in this report for one of the two P-C regions adjacent to the Western Ventura County P-C region, the Saugus-Newhall P-C region, was derived from data taken from California Division of Mines and Geology Special Report 139 (Evans and others, 1979). The reserve estimate is current to January 1979. The resource estimate was made using published geologic maps with reconnaissance field checking, including visits to sand and gravel plants operating in 1978. The following parameters were assumed in estimating the resource:

- 1) Material density ranges from .060 to .065 short tons per cubic foot.
- 2) Waste does not exceed 25 percent.
- 3) Technology is presently available for economic extraction.
- 4) Estimates were limited to areas which are not urbanized and for which mining is still a possible interim land use.
- 5) In bedrock areas, the lowest level of extraction would be such to permit drainage of the quarried area.

The resource figures for the Simi P-C Region are taken from Part II of this report. The estimated resources of adjacent P-C regions are presented on Table 3.5.

Localities marked as PRZ (Preliminary Resource Zone) on Plate 2.1 contain all of the known tentative MRZ-2 resource areas in the Saugus-Newhall P-C region. Changes in both the resource estimation and the outlines of the zones will most likely be made when a more detailed study is done.

ESTIMATED 50-YEAR CONSUMPTION OF AGGREGATE IN ADJACENT P-C REGIONS

Estimated 50-year aggregate needs for adjacent P-C regions are presented on Table 3.4. Comparison of Tables 3.4 and 3.5 shows that the projected 50-year total consumption of aggregate for each of the two adjacent P-C regions is less than their respective total reserve estimates. However, the estimated reserves for the Simi P-C Region are marginally sufficient to supply its 50-year projected needs for aggregate. Therefore, if none of the presently *non-permitted resources* in the Simi P-C Region are permitted as additional *reserves*, any significant export of the present *reserves* into the Western Ventura County P-C Region will result in a short fall in the Simi P-C Region over the next 50 years.

The present producers located in adjacent P-C regions are the most immediate alternative sources of known quality construction aggregate. The drawbacks of depending heavily on those sources in the future are the increased haulage costs, added air pollution caused by the increased truck travel, and the lack of control on those sources by the market population of the Western Ventura County P-C Region. This last drawback is amplified by the fact that the adjacent Simi P-C Region has just enough reserves to meet its projected needs for the next 50 years. And, although the Saugus-Newhall P-C Region may appear to have an oversupply, it is in Los Angeles County, and decisions made concerning future availability of aggregate resources in that area may not take into account the interests of the western Ventura County market.

Sedimentary Rocks as Alternative

Clastic sedimentary deposits of Cenozoic age crop out over much of the Western Ventura County P-C Region in the hilly and mountainous areas. Many of these deposits are probably unsuitable for aggregate material because they are fine-grained (siltstones and shales) or they lack a coarse gravel-sized fraction (for example, sandstones). Not enough is known about these units to exclude all of them from possibly having some part that would be suitable for aggregate use in the future. Therefore, several of the sedimentary formations that are recorded as having sandstone and possibly coarser beds are classified as MRZ-3.

Table 3.5 Aggregate resources of the Western Ventura County, Simi, and Saugus-Newhall P-C regions.

PRODUCTION-CONSUMPTION REGION	RESERVES (Million Tons)	RESOURCES (Million Tons)	TOTAL (Million Tons)
Western Ventura County	40	4900*	4900*
Simi	170	1000	1200*
Saugus-Newhall	200	230	430
CATEGORY TOTAL	400*	6100*	
TOTAL RESERVES-RESOURCES, Simi, Western Ventura County, San Fernando Valley and Saugus-Newhall:			6500*

*Figure rounded off to the nearest 100 million tons.

A few of these Cenozoic deposits, although predominantly sandstone, contain local areas that are known to have varying amounts of gravel, and although these units are also classified as MRZ-3, they are much more favorable and are deserving of further attention. As yet, none of these units have been mined for aggregate within the lower Santa Clara River-Ventura River production district (see Figure 1.3); however, some of those discussed below have been mined in nearby areas.

The youngest three of the Tertiary units—the Santa Barbara, Saugus, and San Pedro Formations—are, in part, lateral equivalents of one another. Geologic mapping has in some places separated these units and, in others, it has not. These units are extensively exposed on the south flank of the hills north of the Santa Clara River, from the City of Ventura to Fillmore. For the most part, these formations in this area are predominantly siltstones and sandstones, but coarser lenses contain curable cobbles. Material in the Saugus Formation is presently mined for aggregate in several areas in Oak Ridge, north of Simi and Moorpark, but these operations produce large amounts of sand waste and probably survive due to their proximity to a market area. Further detailed study of the Santa Barbara, Saugus, and San Pedro Formations exposed within Western Ventura County P-C Region would be necessary to determine their future potential as an aggregate source.

The Casitas Formation is also a possible stratigraphic equivalent of part of the San Pedro Formation. It is exposed near the far west edge of Ventura County along Rincon Creek. The Casitas Formation is composed of unsorted gravel, sand, and silt, and is relatively unconsolidated. This is one of the most promising of the bedrock sediment deposits classified as MRZ-3, but it may well find a market in the Carpinteria area to the west outside of the Western Ventura County P-C Region.

The Sespe Formation also holds some promise as a future source of aggregate material. Although the Sespe Formation commonly contains a relative abundance of deleterious material, it does have local beds of relatively clean sandstone and conglomerate with durable, well-rounded clasts of volcanic rock, granitic rock, and minor shale and metamorphic rock. A large conglomerate lens within the Sespe Formation is mined for aggregate in Orange County along the Santa Ana River. Further studies would be needed to locate and assess the most favorable areas in the Sespe Formation within the Western Ventura County P-C Region.

A long range alternative might be the bedrock sedimentary units, although much testing and evaluation would need to be done to discover marketable sources. The pluses are that the upland areas underlain by these sediments are not likely to experience urban development pressure in the near future, operations would probably have a low visual impact, and their locations within the P-C region would provide for reasonable haulage distances and local control.

Quaternary Alluvial Deposits as Alternative

In the Western Ventura County P-C Region, all the known sand and gravel resources that have been compiled for this report are in the alluvial areas along the Santa Clara River and the Ventura River. Near the margins of these areas that have been classified as MRZ-2, there are adjacent areas classified as MRZ-3. These MRZ-3 areas are discussed as alternative sources.

A large tract of alluvial material between the south-western-most MRZ-2 boundary along the Santa Clara River and the coast may be a potential source of aggregate. The well-log data shows a relatively high percentage of fines in this area as compared to similar areas farther upstream. Some lenses in this deposit may be suitable for use as aggregate, but detailed information will be necessary to delineate them.

South of the present Santa Clara River course on the Oxnard Plain is an older, buried river channel that may contain minable deposits of aggregate. The general course of this old channel is fairly straight and extends from near the western end of South Mountain where it diverges from the present channel, in Port Hueneme. The channel ranges from a half mile to a mile wide, narrowing seaward, and is buried by about 5 feet of overburden.

Any future mining in either of these areas would be confronted with the same permit restrictions as those of the present aggregate operations; in addition, the area near the mouth of the Santa Clara River is of great environmental concern as a coastal wildlife habitat and as a beach sediment recharge avenue. The older buried channel lies mostly in urban areas and would be a potential suitable source of aggregate only near its northern end.

Another deposit adjacent to the MRZ-2 area along the Santa Clara River lies west of the town of Fillmore. This deposit is not river-laid alluvium, but is derived from the slopes and canyons to the northwest on the flank of Santa Paula Peak. The area delineated by drill log data is about 4 1/2 miles long and a mile wide, extending along both sides of the Southern Pacific Railway from Kenny Grove halfway to Santa Paula. The data indicates a high percentage of coarse material here, but the quality is unknown.

The alluvial sediments in the Ventura River Canyon and its larger tributaries are possible alternative sources of aggregate material. Although the Southern Pacific Milling Company is presently mining aggregate in the Ventura River, the products are base and fill, reflecting the low quality of the deposit. The clasts are predominately sandstone with minor amounts of shale and chert. This would be generally unsuitable for Portland cement concrete aggregate; however, tributaries may carry higher quality material into local parts of the drainage. The data are not detailed enough to delineate any such areas at present.

At the east end of Ojai Valley, the large alluvial fan originating from Horn Canyon consists of boulders and sand. Although drill hole data shows this large deposit to be generally uniform in coarse material, the quality of the clasts is not known. As Horn Canyon drains an area underlain by sandstone and siltstone bedrock formations, it is unlikely that this material would be suitable as Portland cement concrete aggregate.

The conversion of any of the Quaternary alluvial or fan sediments classified as MRZ-3 into future alternative sources of construction aggregate is doubtful. The development of alternative deposits located in the Santa Clara River channel or Oxnard Plain would share the same environmental difficulties that the present sand and gravel production areas have with probable higher attendant costs due to lower source quality. The other deposits in Ventura River Canyon, Ojai Valley, and the Fillmore area most likely will not yield aggregate of Portland cement concrete quality, and will probably find their highest use as base material or fill. And, although a continued production of those products from sources such as the Ventura River is important,

the need for future sources of Portland cement concrete aggregate is more pressing.

Sources of Crushed Rock as Alternative

The only available nearby source of rock suitable for crushing and processing into aggregate material is in the Tertiary volcanic rocks that are exposed over large areas of the western and central Santa Monica Mountains (Conejo Volcanics of middle Miocene age), most of which are within the Western Ventura County P-C Region and have been classified as MRZ-3 (Plates 1.21, 1.22, 1.23, 1.24, 2.1, and 2.3). Some of these volcanic rocks might be crushed and processed into aggregate material if the rock is of acceptable quality.

These volcanic rocks have not been thoroughly evaluated for use as aggregate material; however, cursory field examination and petrographic analysis of several rock samples indicate that rocks in this area have undergone widespread zeolitization. Volcanic rocks with high zeolite content are potentially reactive in concrete and, therefore, unsuitable for use as aggregate. Deuteric rock alterations also could degrade the durability of the material. Exploration and testing is necessary to delineate any suitable crushed rock resource areas in this terrane.

LAND-USE FACTORS

Most of the volcanic rock exposed in the Santa Monica Mountains lies within the proposed boundaries of the Santa Monica Mountains National Recreation Area (NRA), established November 10, 1978, with passage of Public Law 95-625, Section 507 (Plate 1.1). The NRA is administered by the U.S. Department of the Interior through the National Park Service. Public Law 95-625 mandates that "The Secretary shall manage the recreation area in a manner which will preserve and enhance its scenic, natural and historical setting and its public health value as an airshed for the southern California metropolitan area while providing for the recreational and educational needs of the visiting public." Although the enabling legislation does not address mining activity specifically, Section 507(i) states: "In the administration of the recreation area, the Secretary may utilize such statutory authority available for the conservation and management of wildlife and natural resources as appropriate to carry out the purpose of this section. The fragile resource areas of the recreation area shall be administered on a low-intensity basis, as determined by the Secretary." Opportunities for future mining activity in this area seem uncertain at best.

ENVIRONMENTAL FACTORS

Major environmental factors that must be addressed when evaluating mining and processing of crushed rock for aggregate material are water and air quality, operational noise level, reclamation of mined land, and esthetics. The aggregate industry must meet rigorous city, county, state, and federal requirements to abate and mitigate degradation of the environment. Specific environmental concerns can vary from one locality to another depending on the nature of the surrounding environment. For instance, environmental issues regarding crushed rock aggregate operations in the western Simi Valley-Newbury Park area that might be raised by the people in the surrounding residential sections would be related to dust, noise (blasting), and truck traffic resulting from plant operations. In unpopulated, undeveloped areas of the Santa Monica Mountains, esthetic quality, noise, water pollution, and disturbance of surrounding biota might receive greatest concern.

Offshore Sediment Deposits as Alternative

Although there are no known gravel deposits in the near-shore environment along the Ventura County coast, there are some scattered deposits at shallow depths adjacent to the Santa Barbara Islands. Neither the quantity nor quality of these deposits has been assessed.

The number of requirements that would have to be met in order to mine any offshore deposits seems to be prohibitive. The environmental factors concerning damage to marine life would probably be one of the most difficult to overcome. Nevertheless, such deposits might be considered as potential alternative sources of aggregate for the Western Ventura County P-C Region.

The development of the gravel deposits offshore of the Santa Barbara Islands presents a totally different and perhaps even more difficult set of environmental problems. Even if the feasibility of tapping these deposits were proven, there would probably be a protracted period of development necessary for what appears to be a limited supply.

Aggregate Replenishment in the Santa Clara River

Hypothetically, aggregate replenishment from the drainage of the Santa Clara River can, in the future, contribute aggregate to restore some of the volume of mined material in Ventura County. Unfortunately, this issue is impossible to address quantitatively without an extensive data base on the fluvial history of the river, and even then conclusions might be quite speculative. We have not located any quantitative studies concerning the rate of replenishment on the river or any other fluvial regime which would permit analysis of this topic.

Given the erratic pattern and infrequency of storms large enough to transport a significant bed load (volume of material and replenishment rate) and the varied geologic nature of the watershed (material quality and chemical reactivity), we conclude that replenishment cannot be relied upon as a dependable source to budget against projected shortfalls.

CONCLUSIONS AND RECOMMENDATIONS

The Western Ventura County P-C Region will require approximately 310 million tons of aggregate for construction over the next 50 years based on an anticipated annual per capita consumption rate of 11.0 tons and an annual export of 200,000 tons into Santa Barbara County. Sixty percent of this requirement, or about 190 million tons, will have to be suitable for Portland cement concrete aggregate.

Current reserves of material (including aggregate used in Portland cement concrete, asphaltic concrete, and road base) are approximately 40 million tons (30 million tons for Portland cement concrete). These reserves will be depleted in about 13 years based on the present average rate of consumption. Possible ways of meeting local aggregate requirements after these reserves are exhausted include: (1) extending the operating life of existing operations by allowing mining on adjacent lands or extraction of resources available beneath the permitted depth of

mining; (2) opening new operations elsewhere; and/or (3) importing aggregate from adjacent production districts.

Each of the alternative actions above has a price-tag attached to it, either in monetary terms, environmental terms, or both. Extending the life of existing aggregate operations would necessitate extracting material over larger surface areas and/or from depths greater than currently permitted. Such a course would require a careful, case-by-case assessment of environmental consequences.

Production of aggregate from any other site within the Western Ventura County P-C Region would involve shifting production either to a bedrock source or, alternatively, to some other locality within the Santa Clara River system. The current study has not uncovered any nearby bedrock sources within the Western Ventura County P-C Region that would clearly serve as a supply of concrete aggregate. Considerable geologic study, subsurface exploration, and sampling and testing would be necessary to identify such material.

Further to the east from where current aggregate plants are located, there are large sources of aggregate within the Santa Clara River system that could probably be developed. Opening up new mine areas in those localities would still necessitate a careful assessment of the environmental consequences. This course of action would also probably have a measureable effect on the FOB price of aggregate to the public because of the large capital investment involved in erecting new processing facilities and opening up new ground for extraction. Increased haulage

costs, public safety problems involved with increased haulage distances, accelerated road deterioration, additional air pollution, and increased consumption of scarce fuel would be direct new impacts of shifting to upstream locations within the Santa Clara River basin.

Importing materials from another production district would eliminate some of the environmental problems related to opening up new ground within the Santa Clara River basin, but it would increase the severity of all of the other problems discussed above.

Currently there are 30 million tons of reserves of aggregate suitable for use in Portland cement concrete. The anticipated 50-year requirement for aggregate suitable for this use is 190 million tons. A shortfall for the 50-year period of 160 million tons is therefore projected. This projected shortfall of reserves suggests that it may be in the public interest for lead agencies within the region to take measures to ensure the availability of currently non-permitted resources within the region for future use.

Findings of this study indicate that all 10 sections (A-J) within the Western Ventura County P-C Region contain aggregate resources of regional significance. Because these resources are needed to ensure that the Western Ventura County P-C Region will have an adequate supply of aggregate to meet its 50-year requirement, the CDMG staff recommends that the State Mining and Geology Board consider for designation the areas classified MRZ-2 within Sectors A-J.

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APPENDIX A-1

Surface Mining and Reclamation Act of 1975



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NOTE 50

SURFACE MINING AND RECLAMATION ACT OF 1975

Article 1. General Provisions

2710. This chapter shall be known and may be cited as the Surface Mining and Reclamation Act of 1975.

2711. (a) The Legislature hereby finds and declares that the extraction of minerals is essential to the continued economic well-being of the state and to the needs of the society, and that the reclamation of mined lands is necessary to prevent or minimize adverse effects on the environment and to protect the public health and safety.

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

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

2712. It is the intent of the Legislature to create and maintain an effective and comprehensive surface mining and reclamation policy with regulation of surface mining operations so as to assure that:

(a) Adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition which is readily adaptable for alternative land uses.

(b) The production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment.

(c) Residual hazards to the public health and safety are eliminated.

2713. It is not the intent of the Legislature by the enactment of this chapter to take private property for public use without payment of just compensation in violation of the California and United States Constitutions.

2714. The provisions of this chapter shall not apply to any of the following activities:

(a) Excavations or grading conducted for farming or on-site construction or for the purpose of restoring land following a flood or natural disaster.

(b) Prospecting for, or the extraction of, minerals for commercial purposes and the removal of overburden in total amounts of less than 1,000 cubic yards in any one location of one acre or less.

(c) Surface mining operations that are required by federal law in order to protect a mining claim, if such operations are conducted solely for that purpose.

(d) Such other surface mining operations which the board determines to be of an infrequent nature and which involve only minor surface disturbances.

2715. No provision of this chapter or any ruling, requirement, or policy of the board is a limitation on any of the following:

(a) On the police power of any city or county or on the power of any city or county to declare, prohibit, and abate nuisances

(b) On the power of the Attorney General, at the request of the board, or upon his own motion, to bring an action in the name of the people of the State of California to enjoin any pollution or nuisance.

(c) On the power of any state agency in the enforcement or administration of any provision of law which it is specifically authorized or required to enforce or administer.

(d) On the right of any person to maintain at any time any appropriate action for relief against any private nuisance as defined in Part 3 (commencing with Section 3479) of Division 4 of the Civil Code or for any other private relief.

(e) On the power of any city or county to adopt policies, standards, or regulations imposing additional requirements on any person if the requirements do not prevent the person from complying with the provisions of this chapter.

(f) On the power of any city or county to regulate the use of buildings, structures, and land as between industry, business, residents, open space (including agriculture, recreation, the enjoyment of scenic beauty, and the use of natural resources), and other purposes.

2716. Any person may commence an action on his own behalf against the board or the State Geologist for a writ of mandate pursuant to Chapter 2 (commencing with Section 1084) of Title 1 of Part 3 of the Code of Civil Procedure to compel the board or the State Geologist to carry out any duty imposed upon them pursuant to the provisions of this chapter.

2717. The board shall submit to the Legislature on December 1st of each year a report on the actions taken pursuant to this chapter during the preceding fiscal year. Such report shall include a statement of the actions, including legislative recommendations, which are necessary to carry out more completely the purposes and requirements of this chapter.

2718. If any provision of this chapter or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the chapter which can be given effect without the invalid provision or application, and to this end the provisions of this chapter are severable.

Article 2. Definitions

2725. Unless the context otherwise requires, the definitions set forth in this article shall govern the construction of this chapter.

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

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

2728. "Lead agency" means the city or county which has the principal responsibility for approving a surface mining operation pursuant to this chapter.

2729. "Mined lands" includes 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.

2730. "Mining waste" includes the residual of soil, rock, mineral, liquid, vegetation, equipment, machines, tools, or other materials or property directly resulting from, or displaced by, surface mining operations.

2731. "Operator" means any person who is engaged in surface mining operations, himself, or who contracts with others to conduct operations on his behalf, except a person who is engaged in surface mining operations as an employee with wages as his sole compensation.

2732. "Overburden" means soil, rock, or other materials that lie above a natural mineral deposit or in between mineral deposits, before or after their removal by surface mining operations.

2732.5. "Permit" means any authorization from, or approval by, a lead agency, the absence of which would preclude surface mining operations.

2733. "Reclamation" means the combined process of land treatment that minimizes water degradation, air pollution, damage to aquatic or wildlife habitat, flooding, erosion, and other adverse effects from surface mining operations, including adverse surface effects incidental to underground mines, so that mined lands are reclaimed to a usable condition which is readily adaptable for alternate land uses and create no danger to public health or safety. The process may extend to affected lands surrounding mined lands, and may require backfilling, grading, resoiling, revegetation, soil compaction, stabilization, or other measures.

2734. "State policy" means the state policy for the reclamation of mined lands adopted pursuant to Section 2755.

2735. "Surface mining operations" means 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.

Article 3. District Committees

2740. In carrying out the provisions of this chapter, the board may establish districts and appoint one or more district technical advisory committees to advise the board. In establishing districts for these committees, the board shall take into account physical characteristics, including, but not limited to, climate, topography, geology, type of overburden, and principal mineral commodities. Members of the committees shall be selected and appointed on the basis of their professional qualifications and training in mineral resource conservation, development and utilization, land use planning, mineral economics, or the reclamation of mined lands.

2741. The members of the committee shall receive no compensation for their services, but shall be entitled to their actual and necessary expenses incurred in the performance of their duties.

Article 4. State Policy for the Reclamation of Mined Lands

2755. On or before January 1, 1977, the board shall adopt state policy for the reclamation of mined lands in accordance with the general provisions set forth in Article 1 (commencing with Section 2710) of this chapter and pursuant to Chapter 4.5 (commencing with Section 11371) of Part 1 of Division 3 of Title 2 of the Government Code.

2756. State policy shall apply to the conduct of surface mining operations and shall include, but shall not be limited to, measures to be employed by local governments in specifying grading, backfilling, resoiling, revegetation, soil compaction, and other reclamation requirements, and for soil erosion control, water quality and watershed control, waste disposal, and flood control.

2757. The state policy adopted by the board shall be based upon a study of the factors that significantly affect the present and future condition of mined lands, and shall be used as standards by local governments in preparing specific and general plans, including the conservation and land use elements of the general plan, and zoning ordinances. The state policy shall not include aspects of regulating surface mining operations which are solely of local concern, and not of statewide or regional concern, as determined by the board, such as, but not limited to, hours of operation, noise, dust, fencing, and purely aesthetic considerations.

2758. Such policy shall include objectives and criteria for all of the following:

- (a) Determining the lead agency pursuant to the provisions of Section 2771.
- (b) The orderly evaluation of reclamation plans.
- (c) Determining the circumstances, if any, under which the approval of a proposed surface mining operation by a lead agency need not be conditioned on a guarantee assuring reclamation of the mined lands.

2759. The state policy shall be continuously reviewed and may be revised. During the formulation or revision of such policy, the board shall consult with, and carefully evaluate the recommendations of, the State Geologist, any district technical advisory committees, concerned federal, state, and local agencies, educational institutions, civic and public interest organizations, and private organizations and individuals.

2760. The board shall not adopt or revise the state policy unless a public hearing is first held respecting their adoption or revision. At least 30 days prior to such hearing, the board shall give notice of the hearing by publication pursuant to Section 6061 of the Government Code.

2761. (a) 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 urban and urbanizing portions of the following areas within the state subject to urban expansion or other irreversible land uses:

- (1) Standard metropolitan statistical areas and such other areas for which information is readily available.
- (2) Other areas as may be requested from time to time 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, and such 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.

(c) As it is completed by county, the State Geologist shall transmit such information to the board for incorporation into the state policy and for transmittal to lead agencies.

2762. (a) Within 12 months of receiving the mineral information described in Section 2761, and also within 12 months of the designation of an area of statewide or regional significance within its jurisdiction, every lead agency shall, in accordance with state policy, establish mineral resource management policies to be incorporated in its general plan which will:

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

(2) Assist in the management of land use which affect areas of statewide and regional significance.

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

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

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

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

Article 5. Reclamation Plans and the Conduct of Surface Mining Operations

2770. Except as specified in Section 2776, no person shall conduct surface mining operations unless a permit is obtained from, and a reclamation plan has been submitted to, and approved by, the lead agency for such operation pursuant to this article.

2771. Whenever a proposed surface mining operation is within the jurisdiction of two or more public agencies, is a permitted use within the agencies, and is not separated by a natural or manmade barrier coinciding with the boundary of the agencies, the evaluation of the proposed operation shall be made by the lead agency in accordance with the procedures adopted by the lead agency pursuant to Section 2774. In the event that a dispute arises as to which is the lead agency, any public agency which is a party to the dispute may submit the matter to the board; and the board shall designate the lead agency, giving due consideration to the capability of such agency to fulfill adequately the requirements of this chapter.

2772. The reclamation plan shall be filed with the lead agency on a form provided by the lead agency, by any person who owns, leases, or otherwise controls or operates on all, or any portion of any, mined lands, and who plans to conduct surface mining operations thereon. The reclamation plan shall include the following information and documents:

(a) The name and address of the operator and the names and addresses of any persons designated by him as his agents for the service of process.

(b) The anticipated quantity and type of minerals for which the surface mining operation is to be conducted.

(c) The proposed dates for the initiation and termination of such operation.

(d) The maximum anticipated depth of the surface mining operation.

(e) The size and legal description of the lands that will be affected by such operation, a map that includes the boundaries and topographic details of such lands, a description of the general geology of the area, a detailed description of the geology of the area in which surface mining is to be conducted, the location of all streams, roads, railroads, and

utility facilities within, or adjacent to, such lands, the location of all proposed access roads to be constructed in conducting such operation, and the names and addresses of the owners of all surface and mineral interests of such lands.

(f) A description of and plan for the type of surface mining to be employed and a time schedule that will provide for the completion of surface mining on each segment of the mined lands so that reclamation can be initiated at the earliest possible time on those portions of the mined lands that will not be subject to further disturbance by the surface mining operation.

(g) A description of the proposed use or potential uses of the land after reclamation and evidence that all owners of a possessory interest in the land have been notified of the proposed use or potential uses.

(h) A description of the manner in which reclamation, adequate for the proposed use or potential uses will be accomplished, including: (1) a description of the manner in which contaminants will be controlled, and mining waste will be disposed; and (2) a description of the manner in which rehabilitation of affected streambed channels and streambanks to a condition minimizing erosion and sedimentation will occur.

(i) An assessment of the effect of implementation of the reclamation plan on future mining in the area.

(j) A statement that the person submitting the plan accepts responsibility for reclaiming the mined lands in accordance with the reclamation plan.

(k) Any other information which the lead agency may require by ordinance.

2773. The reclamation plan shall be applicable to a specific piece of property or properties, and shall be based upon the character of the surrounding area and such characteristics of the property as type of overburden, soil stability, topography, geology, climate, stream characteristics, and principal mineral commodities.

2774. Every lead agency shall adopt ordinances establishing procedures for the review and approval of reclamation plans and the issuance of a permit to conduct surface mining operations. Such procedures shall require at least one public hearing and periodic inspections of surface mining operations, and may include provisions for liens, surety bonds, or other security to guarantee reclamation in accordance with the reclamation plan. Such ordinances shall be continuously reviewed and revised, as necessary, in order to ensure that such ordinances are in accordance with state policy. Lead agencies shall notify the State Geologist of the filing of an application for a permit to conduct surface mining operations.

On request of a lead agency, the State Geologist shall furnish technical assistance to assist in the review of reclamation plans.

2775. (a) An applicant whose request for a permit to conduct surface mining operations in an area of statewide or regional significance has been denied by a lead agency, or any person who is aggrieved by the granting of a permit to conduct surface mining operations in an area of statewide or regional significance, may, within 15 days of exhausting his rights to appeal in accordance with the procedures of the lead agency, appeal to the board.

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

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

the lead agency is not supported by substantial evidence in the light of the whole record it shall remand the appeal to the lead agency and the lead agency shall schedule a public hearing to reconsider its action.

2776. 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 may be 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 or materials.

A person who has obtained a vested right to conduct surface mining operations prior to January 1, 1976, shall submit to the lead agency and receive, within a reasonable period of time, approval of a reclamation plan for operations to be conducted after January 1, 1976, unless a reclamation plan was approved by the lead agency prior to January 1, 1976 and the person submitting the plan has accepted responsibility for reclaiming the mined lands in accordance with the reclamation plan.

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

2777. Amendments to an approved reclamation plan may be submitted detailing proposed changes from the original plan. Substantial deviations from the original plan shall not be undertaken until such amendment has been filed with, and approved by, the lead agency.

2778. Reclamation plans, reports, applications, and other documents submitted pursuant to this chapter are public records, unless it can be demonstrated to the satisfaction of the lead agency that the release of such information, or part thereof, would reveal production, reserves, or rate of depletion entitled to protection as proprietary information. The lead agency shall identify such proprietary information as a separate part of the application. Proprietary information shall be made available only to the State Geologist and to persons authorized in writing by the operator and by the owner.

A copy of all reclamation plans, reports, applications, and other documents submitted pursuant to this chapter shall be furnished to the State Geologist by lead agencies on request.

2779. Whenever one operator succeeds to the interest of another in any incompleted surface mining operation by sale, assignment, transfer, conveyance, exchange, or other means, the successor shall be bound by the provisions of the approved reclamation plan and the provisions of this chapter.

Article 6. Areas of Statewide or Regional Significance

2790. 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 geographic 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.

2791. The board shall seek the recommendations of concerned federal, state, and local agencies, educational institutions, civic and public interest organizations, and private organizations and individuals in the identification of areas of statewide and regional significance.

2792. Neither the designation of an area of regional or statewide significance nor the adoption of any regulations for such an area shall in any way limit or modify the rights of any person to complete any development that has been authorized pursuant to Part 2 (commencing with Section 11000) of Division 4 of the Business and Professions Code, pursuant to the Subdivision Map Act (Division 2 (commencing with Section 66410) of Title 7 of the Government Code), or by a building permit or other authorization to commence development, upon which such person relies and has changed his position to his substantial detriment, and, which permit or authorization was issued prior to the designation of such area pursuant to Section 2790. If a developer has by his actions taken in reliance upon prior regulations obtained vested or other legal rights that in law would have prevented a local public agency from changing such regulations in a way adverse to his interests, nothing in this chapter authorizes any governmental agency to abridge those rights.

2793. 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.

APPENDIX A-2

State Mining and Geology Board *Resolution 22*

APPENDIX A-2

STATE MINING AND GEOLOGY BOARD

State of California

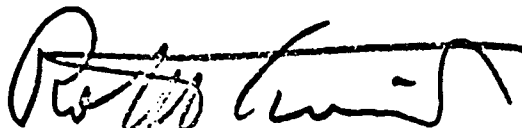
RESOLUTION NO. 22

WHEREAS the Board recognizes the importance of prioritizing classification projects so that potential mineral lands that are most likely to be converted to uses that are incompatible with mining are classified first (in conformance with Section 2761(b) of the Surface Mining and Reclamation Act of 1975 (SMARA) and the Guidelines for Classification and Designation of Mineral Lands adopted by the Board on June 30, 1978) and,

WHEREAS the Board recognizes the importance of periodically reviewing classification priorities to insure that the mineral resource conservation objectives of SMARA and the Board's guidelines are being met within existing funding and staffing constraints,

THEREFORE be it resolved that the prioritized list of mineral lands classification projects as adopted on January 13, 1978 be revised. The revised list as attached separates urban from non-urban and other areas for classification purposes. Priority is to be given to urban areas and their geographical subdivisions.

ADOPTED: November 2, 1978

A handwritten signature in black ink, appearing to read "Robert H. Twiss", written over a horizontal line.

Robert H. Twiss
Chairman

APPENDIX A-2

November 2, 1978

Priorities for Mineral Lands
ClassificationI. Urban Areas

Priority 1

- A. Greater Los Angeles Basin
- B. East San Francisco Bay Counties

Priority 2

- A. South, West and North San Francisco Bay Counties
- B. Sacramento - San Joaquin Valley Urbanizing
Areas

Priority 3

- A. Western San Diego County
- B. Coastal Ventura and Santa Barbara County Areas
- C. Solano-Napa-Yolo Urbanizing Areas
- D. Bakersfield and Palmdale Areas
- E. San Luis Obispo - Santa Maria Area
- F. Fresno Area

II. Non-Urban And Other Areas Not Covered Above

Priority 1

California Desert Conservation Area (CDCA)

Priority 2

Forest Lands - RARE II Areas

Priority 3

Other Areas

APPENDIX A-3

State Mining and Geology Board *Guidelines for Classification and Designation of Mineral Lands*



EDMUND G. BROWN JR.
GOVERNOR OF CALIFORNIA

Robert H. Twiss
Chairman
James A. Anderson
Alcides S. Freitas
Willard P. Fuller
Arthur Grantz
Raymond E. Krauss
Return F. Moore
To-Liang Teng

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
STATE MINING AND GEOLOGY BOARD
1335 RESOURCES BUILDING
1416 - 9TH STREET, SACRAMENTO 95814
(916) 322-1082

July 13, 1978

SUBJECT: Guidelines for Classification and Designation of Mineral Lands

The Surface Mining and Reclamation Act of 1975 (SMARA) requires the State Mining and Geology Board to adopt state policies relative to mineral resource production and conservation.

Pursuant to this requirement the Board adopted the Guidelines for Classification and Designation of Mineral Lands following a June 30, 1978 public hearing held in Sacramento. A copy of these Guidelines is attached for your information.

The Board has not yet adopted a policy on California Environmental Quality Act (CEQA) compliance as it relates to designation of mineral lands, page 17 of the Guidelines. In considering such a policy the Board will be guided by the Attorney General's Opinion SO 78/5 IL of June 19, 1978 which states that:

1. The designation by the State Mining and Geology Board of an area as being of regional or statewide significance is an activity which requires compliance with CEQA and an environmental impact report will be required if the designation may have a significant effect on the environment.
2. The State Mining and Geology Board is the appropriate lead agency for preparing environmental documents relating to the designation of mineral lands.

Questions concerning SMARA and Board policies should be directed to D.W. Sprague, Special Representative to the Board, (916) 322-1082.

Robert H. Twiss
Robert H. Twiss
Chairman *RHT*

Attachment

GUIDELINES
FOR
CLASSIFICATION AND DESIGNATION
OF MINERAL LANDS

Prepared By

The State Mining and Geology Board
1416 Ninth Street, Room 1335
Sacramento, California 95814

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PREFACE

The Surface Mining and Reclamation Act of 1975, enacted as Chapter 9, Division 2 of the Public Resources Code, requires the State Mining and Geology Board to adopt state policies relative to mineral resource production and conservation.

Pursuant to this requirement the Board adopted the Guidelines for Classification and Designation of Mineral Lands following a June 30, 1978 public hearing held in Sacramento, California.

CHAPTER 8. Mining and Geology

SUBCHAPTER 1. State Mining and Geology Board

Article II. GUIDELINES FOR CLASSIFICATION AND DESIGNATION OF MINERAL LANDS

INTRODUCTION - The purpose of these guidelines is to implement the Surface Mining and Reclamation Act of 1975 by providing direction to the State Geologist in carrying out mineral resource classification of lands in California that are threatened by uses which would be incompatible with or would preclude mining. In addition, these guidelines establish procedures by which the State Mining and Geology Board may designate mineral-bearing areas of statewide or of regional significance.

Classification is the process of identification of lands containing significant mineral deposits. Designation is the formal recognition by the Board, after consultation with lead agencies and other interested parties, of areas containing mineral deposits of regional or statewide significance that should be protected from land uses incompatible with mineral extraction. The objective of the classification and designation processes is to insure, through appropriate lead agency policies and procedures, that mineral deposits of statewide or of regional significance are available when needed.

It is the Board's intention to review the guidelines from time to time and to revise them as necessary.

SECTION I. GUIDELINES FOR CLASSIFICATION OF MINERAL LANDS

1. Classification Criteria

- a) In accordance with these guidelines and a schedule adopted by the Board, the State Geologist shall classify areas of the State threatened by land uses incompatible with or that would preclude mining. Such areas will be

classified into Mineral Resource Zones (MRZ) and Scientific Resource Zones (SZ) as defined in this section and shall be based on geologic and economic factors without regard to existing land use and land ownership. The areas to be studied and their order of study shall be specified by the Board in consultation with the State Geologist.

- b) To be considered significant for the purpose of the classification of mineral lands a mineral deposit, or a group of deposits that can be mined as a unit, must meet the following criteria of marketability and threshold value. In these guidelines the term mineral deposits denotes natural occurrences of rock or mineral materials in or on the earth's crust that are known to be economically minable and such rock or mineral materials that are not minable at present but which may come into such demand as to become economically minable in the foreseeable future. The term mineral resources is used herein as a collective term for all mineral deposits of a particular kind, or for mineral deposits in general. The size of mineral deposits for the purpose of evaluating marketability and threshold value shall include the amounts of naturally occurring rock or mineral material of known or potential economic interest that can be measured, indicated or inferred by using available geologic and geophysical evidence in commonly accepted fashion. The terms measured, indicated and inferred are to be used as defined by the U.S. Bureau of Mines and the U.S. Geological Survey in U.S. Geological Survey Bulletin 1450-A.
- 1) Marketability - In determining marketability, mineral deposits shall be divided into two categories, those containing non-strategic and those containing strategic mineral commodities. Unique or rare occurrences of rocks, minerals or fossils that are of outstanding scientific significance are not required to meet marketability criteria.

- 1) Non-strategic mineral commodities are those which are available domestically and of which the United States imports less than 65% of its needs as reported annually by the U.S. Bureau of Mines. Deposits of mineral commodities in this category must be minable, processable and marketable under the technologic and economic conditions that exist at present or which can be estimated to exist in the foreseeable future. The amount of mineral resources needed for periods of the foreseeable future (50 years) shall be projected using past consumption figures, with appropriate adjustments based upon anticipated changes in market conditions and mining technology.
 - ii) Strategic mineral commodities are those that are in short domestic supply and important for national defense or the wellbeing of the domestic economy. For the purposes of these guidelines they are those mineral commodities of which the United States imports more than 65% of its needs, as reported annually by the U.S. Bureau of Mines, that are judged to be minable, processable and marketable in the foreseeable future if non-domestic sources of supply are cut off.
 - iii) Foreseeable future, as used in this paragraph and elsewhere in the guidelines is a time span of approximately 50 years. Because some of the conditions affecting extraction and marketability cannot be accurately projected 50 years into the future, conservative estimates shall be made in assessing whether a particular mineral resource can be mined, processed and marketed within the next 50 years.
- 2) Threshold value is the projected value (gross selling price) of the first marketable product from an individual mineral deposit or from a group

of deposits that can be operated as a unit, upon completion of extraction and any required mineral separation and processing. For those deposits which meet the marketability criteria, only those estimated to exceed the following threshold values in 1978-equivalent dollars shall be considered significant. These threshold values are intended to indicate in a general way the approximate minimum size of a mineral deposit that will be considered significant for classification and designation. They are not intended, nor could they in practice, be used as precise cut off values. For some deposits in some areas larger or smaller values than those specified would be required for a marketable deposit. If for technological or other reasons one or more parts of a mineral deposit cannot meet the marketability criteria those parts shall not be considered in estimating whether the deposit exceeds the threshold value.

- i) Construction materials (minimum value \$5,000,000) - Mineral materials capable of being used in construction, such as sand and gravel or crushed rock, which normally receive minimal processing, commonly washing and grading, and for which the ratio of transportation costs to value of the processed material at the mine is high.
- ii) Industrial and chemical mineral materials (minimum value \$1,000,000) - Non-metallic mineral materials that normally receive extensive processing, such as heat or chemical treatment or fine sizing, and for which the ratio of transportation costs to value of the material at the mine is moderate or low. Examples of this category include:
 - Limestone, dolomite and marble except where used as construction aggregate
 - Specialty sands
 - Clays
 - Diatomite
 - Phosphate
 - Coal, lignite or peat mined primarily as a raw material for chemicals such as montan wax

Salines and evaporates such as borates and gypsum

Feldspar

Talc

Building and dimension stone

Asbestos

Rock varieties producible into granules, rock flour, mineral wool, expanded shale, pozzolans and other similar commodities

111) Metallic and rare minerals (minimum value \$500,000) - Metallic

elements and minerals, gemstones, and minerals that possess special properties valuable to science or industry. The ratio of transportation costs to the value of the material at the mine for this category is low. Examples include ores, deposits or crystals of:

Precious metals (gold, silver, platinum)

Iron and other ferro alloy metals (iron, tungsten, chromium, manganese)

Base metals (copper, lead, zinc)

Mercury

Uranium and thorium except syngenetic deposits in shale

Rare earths

Minor metals including rubidium and cesium

Gemstones and semi-precious materials

Niobium, tantalum

Optical grade calcite

1111) Non-fluid mineral fuels (minimum value \$1,000,000) - Non-hydrothermal

mineral fuels occurring in sedimentary rocks. Examples include:

Coal

Lignite

Peat

Organic shale

Tar sand

Uranium and thorium (syngenetic deposits in shale)

11111) Unique or rare occurrences of rocks, minerals or fossils that are of outstanding scientific significance (no threshold value).

2. Mineral Resource Zones (MRZ) and Scientific Resource Zone (SZ)

The following MRZ and SZ categories shall be used by the State Geologist in classifying the State's lands. The geologic and economic data and the arguments upon which each unit MRZ or SZ assignment is based shall be presented in the land classification information transmitted by the State Geologist to the Board.

- a) MRZ-1 Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. This zone shall be applied where well developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is nil or slight.
 - b) MRZ-2 Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.
 - c) MRZ-3 Areas containing mineral deposits the significance of which cannot be evaluated from available data.
 - d) MRZ-4 Areas where available information is inadequate for assignment to any other MRZ zone.
 - e) SZ Areas containing unique or rare occurrences of rocks, minerals or fossils that are of outstanding scientific significance shall be classified in this zone.
3. Documentation and Transmittal of Mineral Lands Classification Data
- a) Areas assigned by the State Geologist to mineral resource zones shall be delineated on suitable maps of a scale adequate for use on lead agency general plan maps. These maps shall also show the boundaries of each permitting authority in the report area.
 - b) A map at a convenient scale and a summary report showing the mineral lands classification for an entire county or, at the direction of the Board, major subdivisions of a county, or a major mineral district that includes

portions of two or more counties, shall be prepared after classification is complete. Each map and report shall be submitted to the Board which, after review and approval, shall transmit it to the appropriate lead agencies and make it available to other interested parties.

- c) Mineral land classification reports of regions containing Construction Materials classified MRZ-2 shall include the following additional information for each such mineral commodity:
- 1) The location and an estimate of the total quantity of each such construction material that is geologically available for mining in the report region. The limits of the region shall be considered to be the consumption areas for each potentially producible construction mineral commodity under consideration.
 - 2) An estimate of the total quantity of each such construction material that will be needed to supply the requirements of both the county and the marketing region in which it occurs for the next 50 years. The marketing region is defined as the area within which such material is usually mined and marketed. The amount of each construction material mineral resource needed for the next 50 years shall be projected using past consumption rates adjusted for anticipated changes in market conditions and mining technology. These estimates shall be periodically reviewed as provided in Section 1, Subsection 7.

4. Classification Priorities

Potential mineral lands that are most likely to be converted to uses that are incompatible with mining or which would preclude mining shall be classified first. Where the risk of conversion to incompatible land uses is equal, those areas with mineral deposits of greatest statewide or regional significance shall be classified first. The potential for loss may be through the process/

of urbanization or through other irreversible uses of the mineral lands or of adjoining lands, with which mineral extraction would be incompatible.

5. Petitions for Mineral Lands Classification

- a) Petitions may be brought before the Board by any individual or organization to classify mineral lands that are claimed to contain significant mineral deposits and which are claimed to be threatened by land uses incompatible with mining. Classification is a prerequisite to designation of regional or statewide significance. Once an area is classified as MRZ-2 or SZ, a petition may be submitted for designation consideration under Section II, Subsection 4. If a petitioner can supply sufficient geologic and economic data to support an MRZ-2 or SZ classification by the State Geologist, he may also petition the Board to consider designation. It is expected that such a joint petition will include detailed information, and supportive data on the amounts and value of mineral deposits claimed to be MRZ-2 or SZ and other information required under Section II, Subsection 4, Petitions for Designation. The threat to a mineral deposit may be due to incompatible uses of adjoining lands that would preclude mining, as well as to mineral lands themselves. Petitions submitted to the Board shall include the following information.
- 1) The petitioner's name, mailing address and interest (beneficial, jurisdictional, or other) in the area to be considered for classification.
 - 2) A map (USGS 7 1 2' quadrangle or other appropriate map) showing the boundaries of the area the petitioner wishes to be classified.
 - 3) A description of the significant mineral deposits claimed to occur within the area described, including sufficient geologic and economic data to support the claim that the mineral deposits are significant as defined in these guidelines.

- 4) The imminency of the threatened change, if any, in the use of land containing the claimed significant mineral deposits to a use which would prevent their mining. The petitioner should be prepared to supply full documentation if requested.
 - 5) The name and mailing address of each recorded land owner and each recorded lessee in and adjoining the area described.
 - b) The State Geologist shall make an evaluation of the data submitted in the petition as to its accuracy and sufficiency and determine if the area can be classified on the basis of both submitted and other readily available information. A recommendation shall be then submitted to the Board concerning:
 - 1) The urgency of the requested classification.
 - 2) The sufficiency of the submitted and other readily available data as a basis for classification, and the scope of any additional investigation required.
 - 3) An estimation of the time required to classify the area.
 - c) Following the State Geologist's report, the Board shall determine the priority for classification of the land described in the petition in relation to other areas in the State's mineral lands classification program. Classification of the area will then proceed according to its assigned priority.
6. Lead Agency Responsibilities
- a) Within 12 months of receiving the mineral lands classification map and report, every lead agency shall, in accordance with state policy, develop and adopt mineral resource management policies to be incorporated in its general plan which will:
 - 1) Recognize the mineral classification information, including the classi-

fication maps, transmitted to it by the Board and include the classification maps in its general plan.

- 2) Emphasize the conservation and development of identified significant mineral deposits.
- b) Every lead agency shall submit its proposed mineral resource management policies to the Board for review and comment prior to adoption.
- c) Any subsequent amendment of the mineral resource management policies previously reviewed by the Board shall also require review and comment by the Board.
- d) Prior to permitting a use which would threaten the potential to extract minerals classified by the State Geologist as MRZ-3, the lead agency may cause to be prepared an evaluation of the area in order to ascertain the statewide or regional significance of the mineral deposits known or inferred to be located therein. The results of such an evaluation shall be transmitted to the State Geologist and to the Board for review and comment.

7. Periodic Review of Classified Lands

- a) After a period not to exceed 10 years following transmittal of mineral land classification information to lead agencies the State Geologist shall review the information to determine whether:
 - 1) A reclassification of the area is necessary.
 - 2) The projected requirements for Construction Materials (Subsection 3c of Section I of these guidelines) for 50 years should be revised.The State Geologist shall report the results of such reviews to the Board together with his recommendations.
- b) The Board may direct the State Geologist to reexamine mineral lands already classified on the basis of his recommendation, or for other reasons. Any

resulting reclassification shall be treated in the same manner as the original classification, and employ the same marketability and threshold criteria. The approximate span of time indicated above as being "the foreseeable future" for purposes of estimating marketability shall begin anew at time of reclassification.

SECTION II. PROCEDURES FOR DESIGNATION OF LANDS CONTAINING SIGNIFICANT MINERAL DEPOSITS

1. Designation Criteria

Areas to be considered for designation by the Board will contain one or more mineral deposits of statewide or regional significance. Ordinarily, classification of an area as MRZ-2 by the State Geologist will constitute adequate evidence that an area contains significant mineral deposits, but other data shall be considered by the Board in determining the significance of specific mineral deposits and the desirability of designation.

2. Designation Procedures

- a) Upon receipt from the State Geologist of a mineral lands classification map and report delineating one or more areas classified as MRZ-2 or SZ, the Board shall:
 - 1) Review the map and report to determine the sufficiency of the submitted data as a basis for designation, and request such additional information as may be required from the State Geologist or other sources.
 - 2) Determine the need for, and the priority of, designating the MRZ-2 and SZ areas, taking into consideration the importance of the mineral deposits to the State or region thereof and the imminency of any threatened land use changes that would be incompatible with mineral extraction.

- 3) Notify the appropriate lead agencies of the decision to consider designation of one or more mineral resource areas within their jurisdiction.
 - 4) Set a date and place for a public hearing to consider the areas which the Board proposes to designate as containing mineral deposits of statewide or regional significance. If practicable, the public hearing shall be held in or near the county in which the area proposed for designation occurs.
 - 5) Notify all affected agencies and parties having an interest in the lands considered for designation.
- b) At the public hearing to consider proposed designations, the Board shall seek the recommendations of concerned federal, state and local agencies, educational institutions, civic and public interest organizations, and private organizations and individuals in the identification of mineral deposits of statewide or of regional significance. Such review and comment should address:
- 1) The adequacy of the mineral land classification data transmitted by the State Geologist and of any additional data transmitted by the Board, which together will constitute the principal basis for designation.
 - 2) Additional data bearing on the presence and marketability of mineral deposits proposed to be of statewide or of regional significance in the area under consideration.
 - 3) The need, amount and location of mineral deposits of regional significance, namely Construction Materials as defined in Section 1, Subsection 1b of these guidelines, that should be designated to provide for the needs of the region for 50 years.

- 4) The need for the proposed designation of each mineral deposit of statewide significance, namely, Industrial and Chemical Mineral Materials, Metallic and Rare Minerals, Non-fluid Mineral Fuels, and Rocks, Minerals and Fossils of Outstanding Scientific Significance, as defined in Section 1, Subsection 1b of these guidelines. Ordinarily, such deposits are uncommon or rare, and economically significant occurrences warrant designation. However, some types, such as low grade limestone, low grade clays and other rock varieties that may be processed into valuable mineral products are often present in such large quantities that designation would be warranted only where special circumstances exist. Such circumstances might include proximity of a mineral deposit to markets, transportation, energy sources, or to other raw materials with which they could be combined to produce more valuable products.
 - 5) The existing uses of the areas proposed for designation and the future uses of these areas adopted by local agencies.
 - 6) Values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment.
- c) Following the public hearing, the Board may designate to be of statewide or regional significance, and include in state policy, all or part of the areas classified as MRZ-2 or SZ. The designation shall specify the following:
- 1) The boundaries of the designated area.
 - 2) The mineral deposits of statewide or of regional significance contained in each designated area and an estimate of the amount of each mineral

commodity that is available for mining under present or foreseeable technologic, economic and land use conditions, for MRZ-2 areas, or a description of the materials of scientific value in the SZ area.

- 3) The reason that each designated area is of significance to the State or region, the advantages to the State or region, that might be achieved from the extraction of the minerals of the area, and the adverse effects that might result from premature development to land uses which would preclude mining.
- 4) The time limit, if any, for the designation.
- 5) The specific goals and policies to protect the areas containing mineral deposits designated to be of statewide or regional significance from premature development to uses which would preclude mining, or to uses with which mining would be incompatible.
- 6) Lead agencies having jurisdiction over the area.

3. Lead Agency Designation Responsibilities

- a) Upon designating an area containing significant mineral deposits the Board will transmit a report of its action to the affected lead agencies. The report will include a map of the designated areas at a scale suitable for general plan purposes.
- b) Every lead agency within 12 months of the designation of an area of statewide or regional significance within its jurisdiction, shall:
 - 1) Recognize and include in its general plan the designated areas of statewide and regional significance transmitted to it by the Board.
 - 2) Develop and adopt policies for the management of land use of areas classified MRZ-2 or SZ and designated by the Board as areas of statewide and regional significance to protect those areas from premature development incompatible with mining.

- 3) Emphasize the conservation and development of mineral deposits designated by the Board to be of statewide or regional significance.
- c) Prior to the adoption of mineral resource management policies, lead agencies shall submit them to the Board for review and comment. The Board shall make its comment within 60 days of receipt of the proposed policies. Any subsequent amendment to these resource management policies shall also require Board review and comment.
- d) The Board shall continuously monitor local government implementation of its mineral resource management policies for designated areas.

4. Petitions for Designation

- a) Prior to permitting a use which would threaten the potential to extract minerals classified by the State Geologist as MRZ-2 or SZ but not yet designated, the lead agency may petition the Board for a designation hearing.
- b) Petitions for a designation hearing may also be brought before the Board by any other party provided that the Board has received and approved land classification information that indicates that the area in question is classified MRZ-2 or SZ and that the Board has not yet considered designation. Petitions submitted to the Board shall include the following information.
 - 1) The petitioner's name, mailing address and interest (beneficial, jurisdictional, or other) in the area to be considered for designation.
 - 2) A map (USGS 7 1/2' quadrangle or other appropriate map) showing the boundaries of the MRZ-2 or SZ area the petitioner wishes to be designated.
 - 3) The reasons for requesting designation.
 - 4) The name and mailing address of each recorded land owner and each recorded lessee in and adjoining the area described.

The Board shall then evaluate the data submitted in the petition as to its accuracy and sufficiency. If the Board finds that the petition contains sufficient information and arguments to require a public hearing then the Board shall schedule such a hearing and proceed as outlined in this section.

5. Termination of Designation Status

- a) The status of mineral lands previously designated to be of statewide or regional significance may be terminated, either partially or wholly, by the Board on a finding that the protection afforded by designation is no longer necessary. In making this finding the Board shall consult with affected lead agencies as to the desirability of terminating designation. Such a finding may result from, but not limited to the following reasons:
 - 1) Depletion of the mineral deposit or deposits within the designated area.
 - 2) The mineral deposit or deposits within the designated area are shown to be in excess of quantities required for present or foreseeable future statewide or regional needs.
 - 3) Ending of the time limit, if any, for the designation to be in force.
- b) Prior to making such a finding, the Board shall hold a public hearing. If practicable it shall be held in or near the county in which the designated areas occur.
- c) Petitions may be brought before the Board to terminate the designated status of mineral lands. Petitions submitted to the Board shall include the following information:
 - 1) The petitioner's name, mailing address and interest (beneficial, jurisdictional or other) in the petitioned area.
 - 2) A map (USGS 7 1/2' quadrangle or other appropriate map) and legal description of the petitioned area.

3) Reference shall be made to the specific Board action which designated the area.

4) The reasons and supporting data as to why direct Board involvement is no longer necessary.

The Board shall then evaluate the data submitted in the petition as to its accuracy and sufficiency. If the Board finds that the petition contains sufficient information and arguments to require a public hearing on termination, then the Board shall schedule such a hearing and proceed as outlined in this section.

6. CEQA Compliance (Reserved pending Attorney General's Opinion).