SMGB Information Report 2009-06

STATE MINING AND GEOLOGY BOARD

A Survey of Lead Agencies Affected by the Alquist-Priolo Earthquake Fault Zoning Act

Department of Conservation
Resources Agency

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This Information Report No. 2008-06
of the State Mining and Geology Board was presented, in part,
at the Alquist-Priolo Technical Advisory Committee meetings
held on March 12 and May 7, 2008.

This report does not set forth policy, but rather presents information
that the SMGB considers in setting policy.

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STEPHEN M. TESTA, Executive Officer
State Mining and Geology Board
801 K Street, MS 20-15
Sacramento, California 95814-3528

Telephone: (916) 322-1082
Facsimile: (916) 445-0738
smgb@conservation.ca.gov
http://conservation.ca.gov/smgb

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A Survey of Lead Agencies Affected by the Alquist-Priolo Fault Zoning Act

Stephen M. Testa[1], William Bryant[2] and Jerry Treiman[3]

ABSTRACT

The Alquist-Priolo Earthquake Fault Zoning (AP) Act (Public Resources Code Sections 2621 et seq.) prohibits the construction of most structures for human occupancy across the trace of active faults. The California Geological Survey is responsible for establishing Earthquake Fault Zones that encompass surface traces of active faults in California. Mapping is done according to policies and criteria established by the SMGB. These Earthquake Fault Zones Maps are provided to local governments for their land-use planning and decision making. There are currently 140 affected lead agencies under this Act including 36 Counties and 104 cities. In considering changes to the Act and/or SMGB's regulations, the SMGB conducted a survey of affected lead agencies between December 2007 and September 2008. A ten-question questionnaire was forward to all 140 lead agencies. Results received were compiled and tabulated. Results and recommendations for policy considerations are provided.

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[1]Stephen M. Testa (CEG No. 1613), Executive Officer, California State Mining and Geology Board, 801 K Street, Suite 2015, Sacramento, CA 95814.

[2]William Bryant, Senior Engineering Geologist, California Geological Survey, 801 K Street, Suite MS 12-30, Sacramento, CA 95814.

[3]Jerry Treiman, Senior Engineering Geologist, California Geological Survey, 888 S. Figueroa Street, Suite #475, Los Angeles, CA 90017.

INTRODUCTION

The SMGB is authorized to represent the State's interests in establishing professional guidelines and standards for geological and geophysical investigations and reports produced by the California Geological Survey, public sector agencies, and private practitioners. The SMGB is also authorized to develop specific criteria through regulations that shall be used by affected Lead Agencies in complying with the provisions of the Alquist-Priolo Earthquake Fault Zoning (AP) Act so as to protect the health, safety and welfare of the public. The AP Act (Public Resources Code, Chapter 7.5, Section 2621 through Section 2630) is intended to provide policies and criteria to assist cities, counties and state agencies in the exercise of their responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults as defined by the SMGB.

The SMGB is currently reviewing and considering changes to the A-P EFZ Act and/or SMGB's regulations. In considering changes, the SMGB conducted a survey of affected lead agencies between December 2007 and September 2008. A ten-question questionnaire was forward to all 140 lead agencies. The responses received were compiled and tabulated.

THE ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The AP Act (Public Resources Code Sections 2621 et seq.) was signed into law following the destructive 1971 Mw 6.6 San Fernando earthquake. The intent of the AP Act is to insure public safety by prohibiting the siting of most structures for human occupancy across the trace of potentially hazardous faults. The California Geological Survey (CGS, formerly referred to as the Division of Mines and Geology) is responsible for establishing "Earthquake Fault Zones" that encompass surface traces of active faults in California. Mapping is done according to policies and criteria established by the SMGB. These Earthquake Fault Zones Maps are provided to local governments and state agencies for their land-use planning and decision making.

Currently, the AP Act prohibits the construction of most structures for human occupancy, as defined, across the trace of an active fault. Lead agencies (generally cities and counties) affected by these Zones must regulate certain construction developments within the Zones. Lead agencies must not issue development permits for sites located within Earthquake Fault Zones until geologic investigations demonstrate that any structures for human occupancy are not threatened by surface displacement from future faulting.

This law initially was designated as the Alquist-Priolo Geologic Hazards Zones Act. In May, 1975 it was re-named the Alquist-Priolo Special Studies Zones Act. In January 1994, the Act was given its current name. Information regarding the Act and an index of the mapped Earthquake Fault Zones is available in the CGS Special Publication No. 42 (Bryant and Hart, 2007).

As of August 16, 2007, 551 Official Maps of Earthquake Fault Zones have been issued by the State Geologist (CGS). Of these, 161 have been revised since their initial issue, and four maps have been withdrawn. Thirty-six counties and 104 cities are affected by the existing Earthquake Fault Zones. Of these, no additional maps or map revisions were finalized since August 16, 2007.

Under the AP Act there is a 90-day review period upon the issuance of Preliminary Earthquake Fault Zone Maps by the State Geologist (CGS). Following this review period the SMGB conducts public hearings within the affected lead agencies to receive technical comments about the maps. These comments are reviewed by the SMGB's Geohazards Committee, and then forwarded to the State Geologist for consideration for inclusion in the Official Earthquake Fault Zone Maps. The approval of a project by a city or county must be in accordance with the policies and criteria established by the SMGB, and geologic reports prepared by affected lead agencies must be in sufficient detail as to meet the SMGB's policies.

AP Act Affects 104 Cities and 36 Counties (Table 1). A 10-question survey was mailed to each of these lead agencies in December 2007 (Appendix A).

Table 1

Cities and Counties Affected by Earthquake Fault Zones as of August 16, 2007

Cities (104)			Counties (36)
American Canyon	Hemet	San Bruno	Alameda
Arcadia	Highland	San Diego	Alpine
Arcata	Hollister	San Fernando	Butte
Arvin	Huntington Beach	San Jacinto	Contra Costa
Bakersfield	Indio	San Jose	Fresno
Banning	Inglewood	San Juan Bautista	Humboldt
Barstow	La Habra	San Leandro	Imperial
Beaumont	La Habra Heights	San Luis Obispo	Inyo
Benicia	Lake Elsinore	San Marino	Kern
Berkeley	Livermore	San Pablo	Lake
Bishop	Loma Linda	San Ramon	Lassen
Brea	Long Beach	Santa Clarita	Los Angeles
Calimesa	Los Angeles	Santa Rosa	Marin
Camarillo	Malibu	Seal Beach	Mendocino
Carson	Mammoth Lakes	Signal Hill	Merced
Cathedral City	Milpitas	Simi Valley	Modoc
Chino Hills	Monrovia	South Pasadena	Mono
Coachella	Moorpark	South San Francisco	Monterey

Colton	Moreno Valley	Temecula	Napa
Compton	Morgan Hill	Trinidad	Orange
Concord	Murrieta	Twentynine Palms	Riverside
Corona	Oakland	Union City	San Benito
Coronado	Pacifica	Upland	San Bernardino
Culver City	Palmdale	Ventura (San Buenaventura)	San Diego
Daly City	Palm Springs	Walnut Creek	San Luis Obispo
Danville	Palo Alto	Whittier	San Mateo
Desert Hot Springs	Pasadena	Willits	Santa Barbara
Dublin	Pleasanton	Windsor	Santa Clara
El Cerrito	Portola Valley	Woodside	Santa Cruz
Fairfield	Rancho Cucamonga	Yorba Linda	Shasta
Fontana	Redlands	Yucaipa	Siskiyou
Fortuna	Rialto	Yucca Valley	Solano
Fremont	Richmond		Sonoma
Gardena	Ridgecrest		Stanislaus
Glendale	Rosemead		Ventura
Hayward	San Bernardino		Yolo

RESPONSIBILITES FOR IMPLEMENTATION OF THE AQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

Responsibility for the implementation of the A-P Act is shared between the SMGB, the State Geologist, lead agencies, and owners and developers (Figure 1). Within the Department of Conservation, the SMGB establishes policies and criteria, holds public hearings to receive and review comments from the public and stakeholders, provides technical advice and policy to the State Geologist, and develops regulations and guidelines.

The State Geologist and staff of CGS evaluate faults, designate earthquake fault zones, provide advisory services, and publish updates and distribute maps. The SMGB and State Geologist are occasionally advised by Seismic Safety Commission, when warranted or upon request.

Lead agencies, generally counties and cities, are responsible for incorporating pertinent fault hazard information into their General Plans, require that geologic investigations be performed within Earthquake Fault Zones, review and approve projects, and apply for waivers (when applicable), and impose and collect fees. Lead agencies can also develop more stringent requirements. Counties are also responsible for adequately informing the sellers and their agents of the availability of official maps issued by CGS by posting notices identifying the location of the map and the effective date of the notice.

Property owners and developers are responsible for determining whether a fault-rupture hazard exists within a delineated Earthquake Fault Zone. If an active fault is found, they must avoid placing structures for human occupancy across the trace of an active fault.

Property owners must disclose to potential buyers if a property is located in an Earthquake Fault Zone.

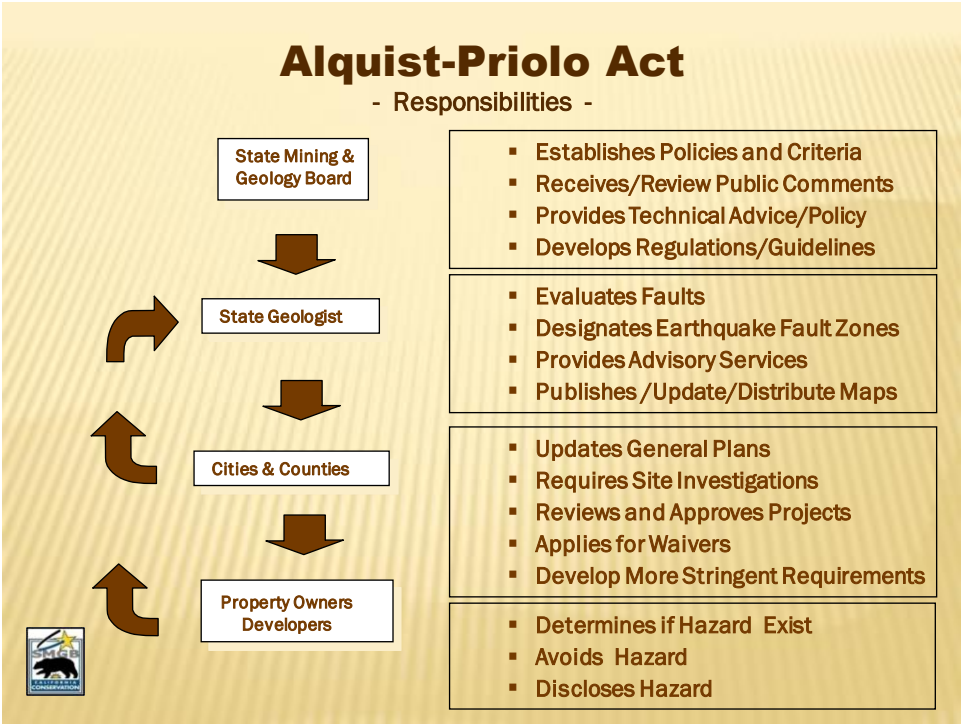


Figure 1: Illustration showing responsibilities and roles of those entities responsible for implementation of the A-P Act.

REVIEW OF LEAD AGENCIES AFFECTED BY THE AP ACT

The SMGB's interest in a review of lead agencies affected by the A-P Act originated from a request from the City of Camarillo in the Fall of 2006 (Figure 2). The City of Camarillo's request was two-fold. They requested interpretation of the SMGB's Policies and Criteria, notably, CCR Section 3603(a) which states "*No structure for human occupancy, identified as a project under Section 2621.6 of the Act, shall be permitted to be placed across the trace of an active fault. Furthermore, as the area within fifty (50) feet of such active fault shall be presumed to be underlain by active branches of that fault unless proven otherwise by an appropriate geologic investigation and report as specified in Section 3603(d) of this subchapter, no such structure shall be permitted in this area* ". They also wanted an opinion by the SMGB if the AP Act allowed structural mitigation across "minor" faults within an Earthquake Fault Zone.

A 10-question survey was developed and sent to the 104 cities and 36 counties affected by the AP Act. The survey was designed to evaluate how the AP Act is administered by local lead agencies, what they require/allow with respect to mitigation of surface fault rupture hazard within their jurisdictions, and what, if any, requirements they may have

that are more conservative than the AP Act. For example, certain exceptions exist as provided by the A-P Act, such as the exemption of single-family dwellings if not part of a development of four or more dwellings.

Figure 2: Aerial photograph showing extensive development within an AP EFZ (shown in red) within the jurisdiction of the City of Camarillo (aerial image from Goggle Earth 2009).

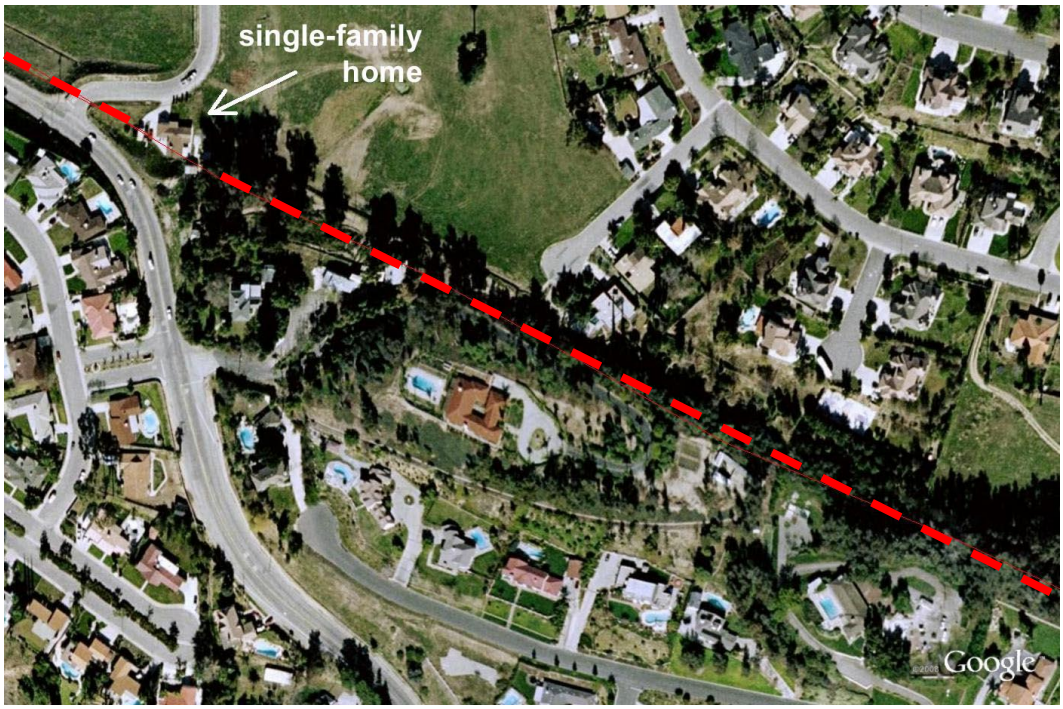
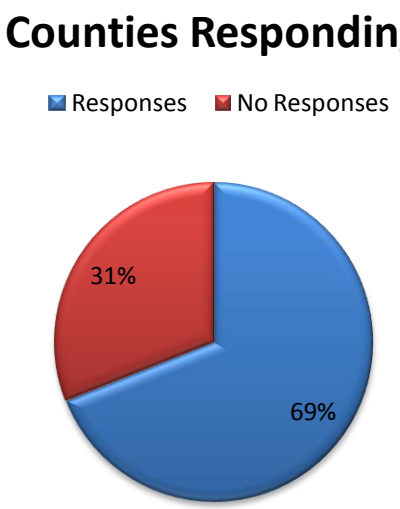


Figure 3: The approximate location of the principal trace of the San Andreas Fault within the jurisdiction of the City of Highland is depicted in red in this aerial photograph (north is to the top of the photo). The single family dwelling in the upper left corner of the photo is exempt under the Alquist-Priolo Act because it is not part of the development of four or more dwellings. A setback from the fault is clearly evident for the development to the southeast (aerial image from the Google Earth 2009).

SURVEY RESULTS

Slightly over two-thirds (69%) of the Counties, and less than one-third (24%) of the Cities responded to the questionnaire. This may be indicative that about one-third of the Counties and two-thirds of the Cities have a lack of knowledge, of their responsibilities under the A-P Act (Figure 4).



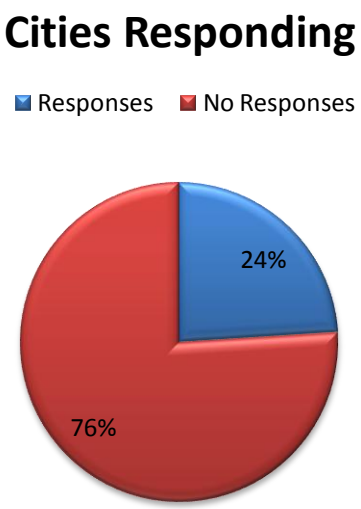


Figure 4: Pie graphs showing the number of Counties and Cities responding to the survey questionnaire.

Table 2					
Summary of Survey Results					
Question No.	**Question**	**Jurisdiction**	**Yes**	**No**	**No Response**
1	Is your agency familiar with the Alquist-Priolo Earthquake Fault Zoning Act?	Counties	100%		
		Cities	100%		
2	Is your agency familiar with Special Publication 42, *Fault-Rupture Hazard Zones in California*?	Counties	92%	8%	
		Cities	88%	12%	
3	Does your agency have a set of the official Earthquake Fault Zone maps for your area of jurisdiction?	Counties	84%	8%	8%

		Cities	84%	12%	4%
4	Does your agency have its own ordinance that addresses any type of geologic hazards?	Counties	80%	16%	4%
		Cities	44%	52%	4%
4a	Does your lead agency require structural setbacks from active faults? If so, how is the setback established?	Counties	68%	20%	12%
		Cities	44%	28%	28%
4b	Do you allow structural mitigations for some faults? If so, what are they?	Counties	28%	56%	16%
		Cities	28%	48%	24%
5	Does your agency require a geologic report for development projects which fall into an AP study zone?	Counties	100%		
		Cities	96%	4%	
6	Does your agency require a geologic report for a single family home project which falls into an AP study zone?	Counties	76%	24%	
		Cities	76%	24%	
7	Does your agency have a review process for geologic reports?	Counties	92%	8%	
		Cities	84%	12%	4%
8	Does your agency have geologic reports reviewed by a California-registered geologist?	Counties	76%	24%	
		Cities	84%	16%	
9	Does your agency file a copy of the report with the California Geological Survey within 30 days after the reports are reviewed and approved?	Counties	60%	32%	8%
		Cities	52%	44%	4%

10	Is your agency more restrictive than State Law with regard to requirements for developments within possible geologic hazard zones?	Counties	44%	56%	
		Cities	24%	76%	

Question No. 1 – Is your agency familiar with the Alquist-Priolo Earthquake Fault Zoning Act? All responding lead agencies are familiar with the Act (Figure 5).

Figure 5: Pie graphs showing the percentage of Counties and Cities familiar with the Act.

Question No. 2 – Is your agency familiar with Special Publication 42, *Fault-Rupture Hazard Zones in California*? The majority of lead agencies, 92% of Counties and 88% of Cities, are familiar with Special Publication 42, Fault-Rupture Hazard Zones in California (Figure 6).

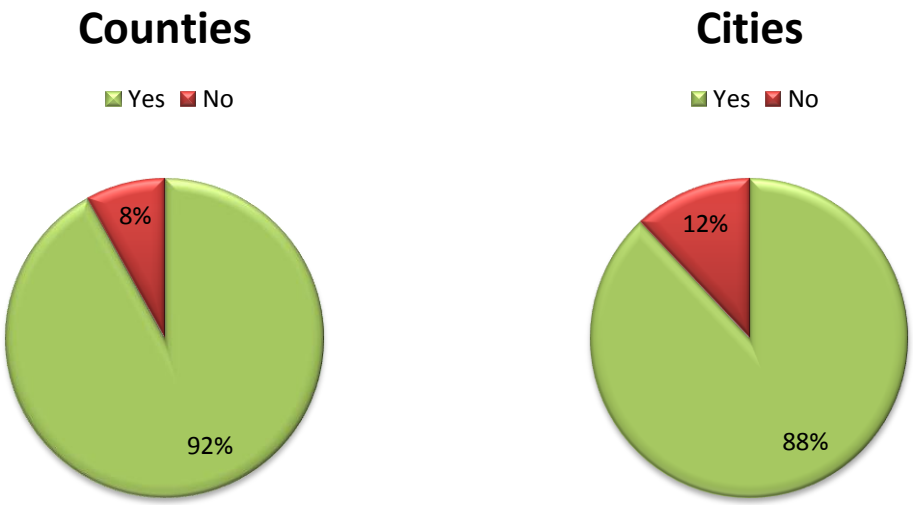


Figure 6: Pie graphs showing the percentage of Counties and Cities familiar with Special Publication 42, Fault-Rupture Hazards Zones in California.

Question No. 3 – Does your agency have a set of the official EFZ maps for your area of jurisdiction? The majority of lead agencies, 84% of Counties and 84% of Cities, have a set of the official EFZ maps for their respective area of jurisdiction (Figure 7).

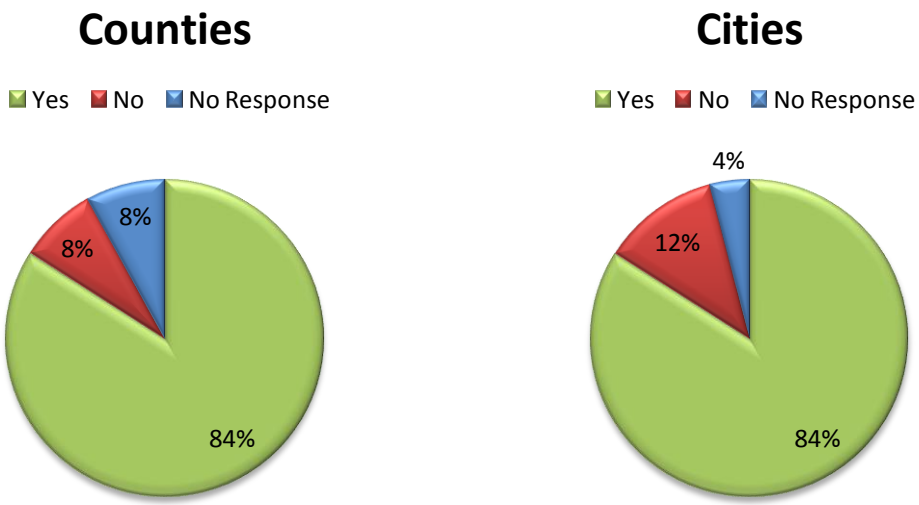


Figure 7: Pie graphs showing the percentage of Counties and Cities that have a set of EFZ maps for their respective jurisdiction.

Question No. 4 – Does your agency have its own ordinance that addresses any type of geologic hazard? For Counties, 80% have ordinances that address any type of geologic hazards; whereas, 44% of Cities have such ordinances (Figure 8).

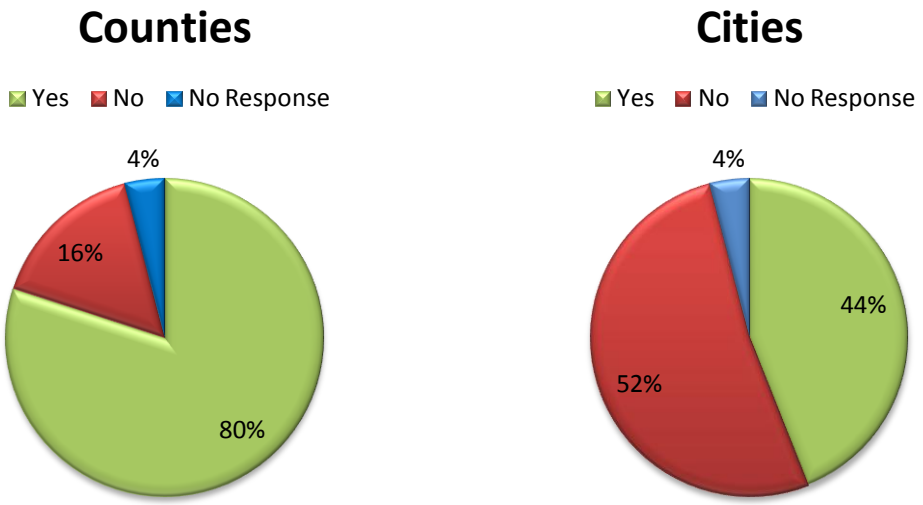
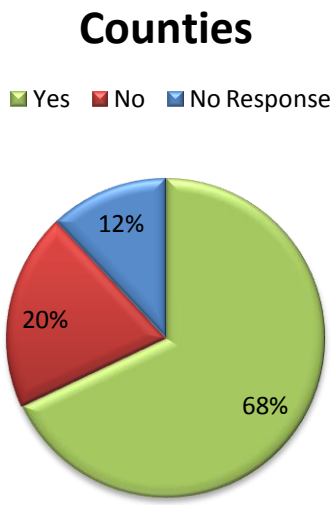


Figure 8: Pie graphs showing the percentage of Counties and Cities that have its own ordinance that addresses any type of geologic hazard.

Question No. 4a – Does your agency require structural setbacks from active faults? If so, how is the setback established? Sixty-eight percent (68%) of responding Counties require structural setbacks from active faults, with 44% of responding Cities requiring some form of structural setback (Figure 9). Most lead agencies require a setback, typically 50-feet, although certain lead agencies, such as Humboldt County and the City of Chino Hills have required greater setbacks. Several lead agencies, such as the Counties of Marin, Mendocino, Monrovia and Riverside, and the Cities of Loma Linda and San Jacinto, rely on recommendations from their consultant, engineer or geotechnical engineer, or County Geologist. Others such as San Bernardino will consider lesser setbacks for well-defined pre-Holocene age faults.



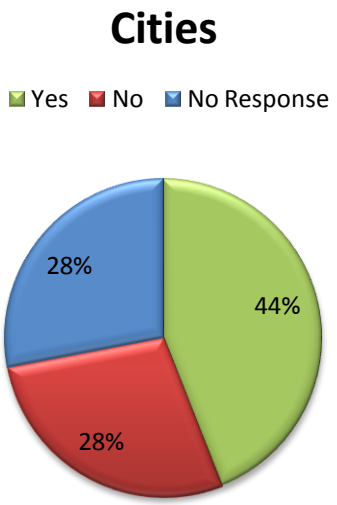


Figure 9: Pie graphs showing the percentage of Counties and Cities that require structural setbacks from active faults.

Question No. 4b – Do you allow structural mitigation for some faults? If so, what are they? Twenty-eight percent (28%) of responding Counties and Cities allow structural mitigation for active faults (Figure 10). Certain lead agencies allow for limited structural mitigation. Certain lead agencies, such as the Counties of Marin and Mendocino, and the Cities of San Jacinto, Loma Linda, Monrovia, and Pacifica, allow for some structural mitigation based on recommendations from a consultant, engineer or geotechnical engineer, or County Geologist. San Bernardino County encourages structural mitigation for secondary failures such as seismically-induced tensional ground fissures. Alameda County allows for structural mitigation for minor alterations or additions to existing buildings. Affirmative responses to question 4b from local lead agencies need further clarification. For example, Camarillo replied yes to 4b, but stated that structural mitigation across faults is not allowed in AP zones, only across minor faults outside of the AP Zones. Although Riverside County had a positive response, they clarified that structural mitigation within AP Zones is only allowed for pre-Holocene faults. It is possible that most lead agencies do not allow structural mitigation within AP Zones. Therefore, the percentage of local lead agencies that responded yes may change with further clarification.

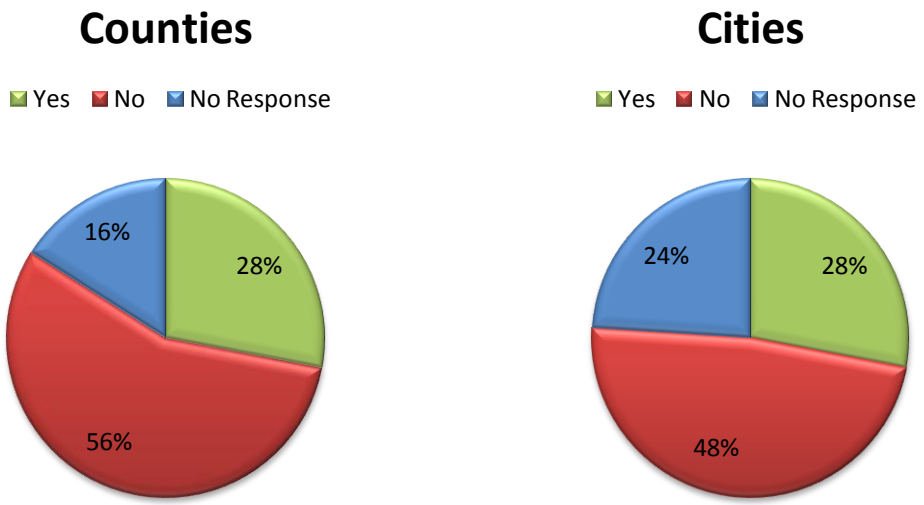


Figure 10: Pie graphs showing the percentage of Counties and Cities that allow structural mitigation for some faults.

Question No. 5 – Does your agency require a geologic report for development projects which fall into an A-P study zone? All Counties that responded require a geologic report for development projects which fall into an A-P study zone; whereas, 96% of Cities require such geologic report (Figure 11).

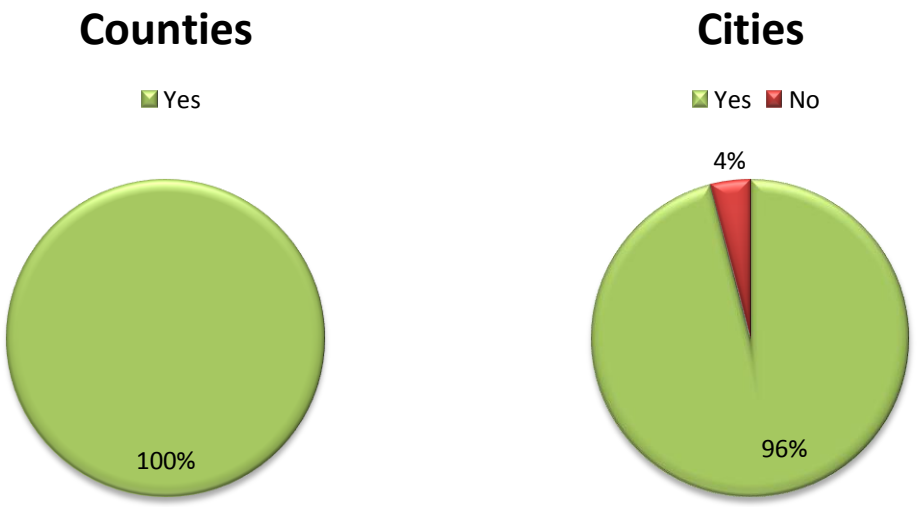


Figure 11: Pie graphs showing the percentage of Counties and Cities that require a geologic report for development projects which fall into an A-P study zone.

Question No. 6 – Does your agency require a geologic report for a single-family home project which falls into an A-P study zone? Seventy-six percent (76%) of Counties require a geologic report for a single family home project which falls in an AP study zone; whereas, 76% of Cities require such geologic report (Figure 12). Alameda County requires a geologic report for new buildings and major additions. Butte County requires a geologic report for discretionary projects under the California Environmental Quality Act (CEQA). Los Angeles County requires a geologic report if a single-family home is within 50 feet of mapped active fault traces. . In the City of Oakland, a geologic report is required is a building if sited within 50 feet of an active fault or potential trace of an active fault as shown on referenced maps.

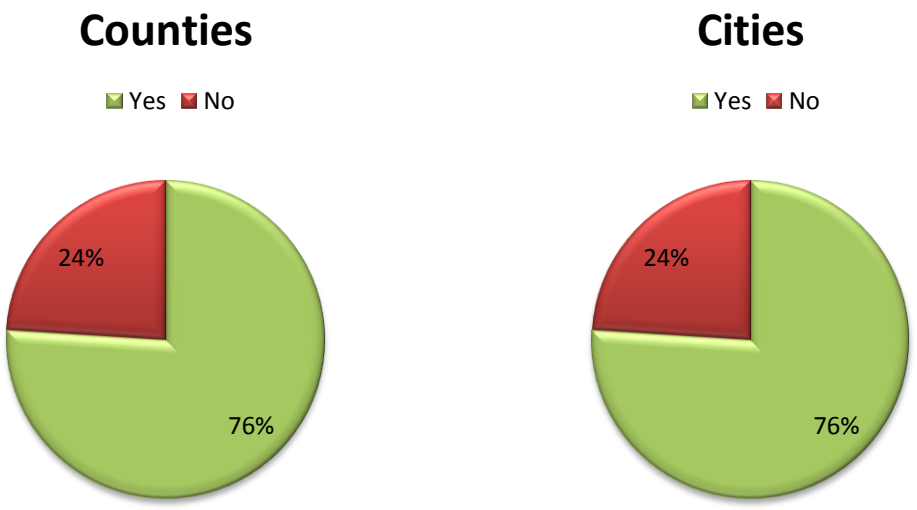


Figure 12: Pie graphs showing the percentage of Counties and Cities that requires a geologic report for a single family home project which falls into an AP study zone.

Question No. 7 – Does your agency have a review process for geologic reports? Ninety-two percent (92%) of Counties and 84% of Cities have a review process for geologic reports (Figure 13).

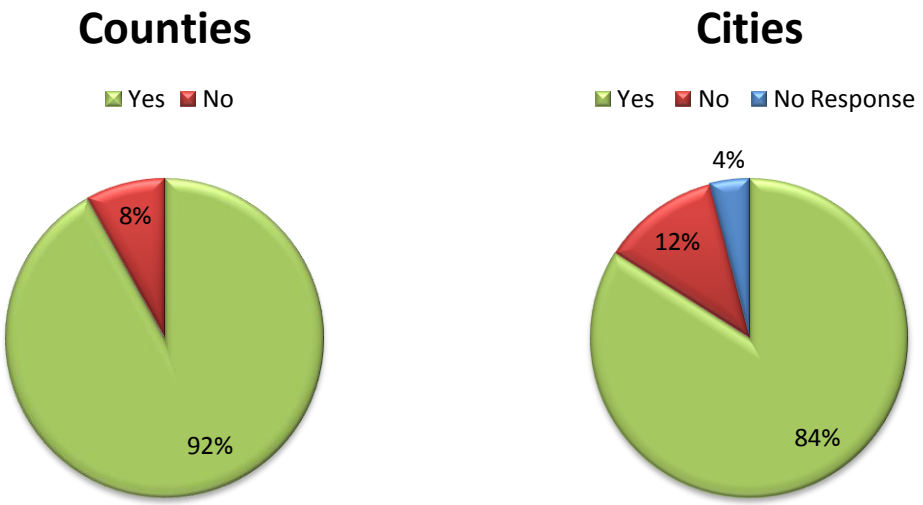


Figure 13: Pie graphs showing the percentage of Counties and Cities that have a review process for geologic reports.

Question No. 8 – Does your agency have geologic reports reviewed by a California-registered geologist? Seventy-six (76%) of Counties and 84% of Cities have geologic reports reviewed by a California-registered geologists (Figure 14).

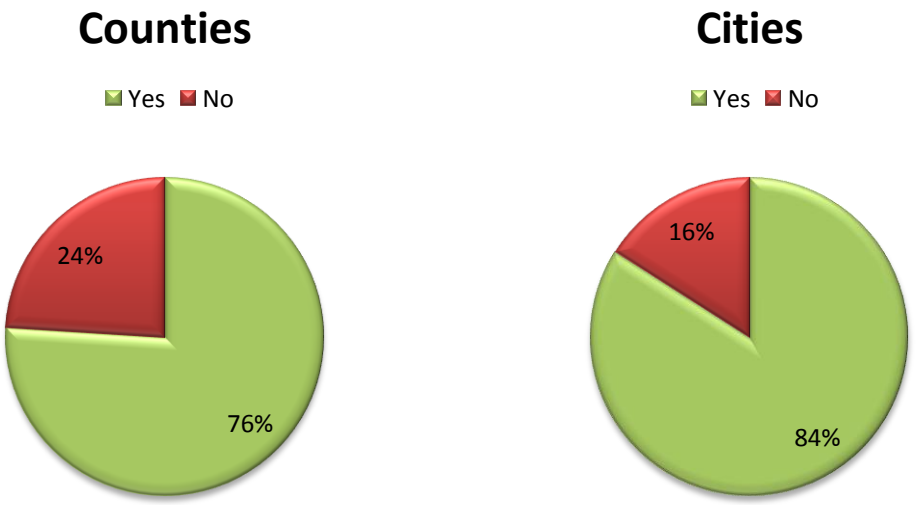


Figure 14: Pie graphs showing the percentage of Counties and Cities that have geologic reports reviewed by a California-registered geologist.

Question No. 9 – Does your agency file a copy of the report with the California Geological Survey within 30 days after the reports are reviewed and approved? The filing of geologic reports with CGS overall is poor. Only 60% of Counties and 52% of Cities file copies of the geologic report with CGS within 30 days after the reports are reviewed and approved (Figure 15). Santa Clara County typically forwards reports to CGS a batch at a time.

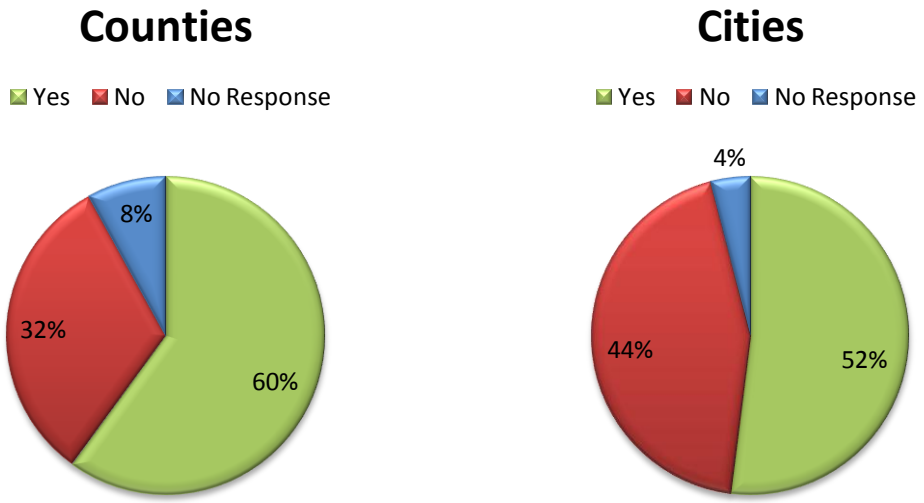
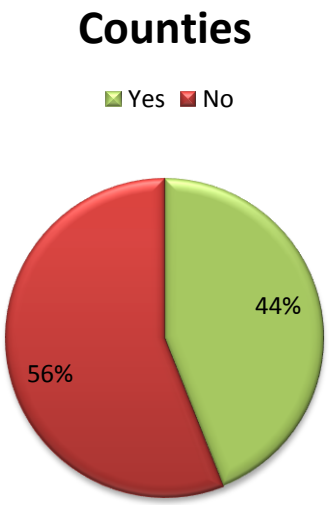


Figure 15: Pie graphs showing the percentage of Counties and Cities that file a copy of the report with the California Geological Survey within 30 days after the reports are reviewed and approved.

Question No. 10 – Is your agency more restrictive than State Law with regard to requirements for developments within possible geologic hazards zones? An appreciable number of lead agencies have requirements more restrictive than State Law. Forty-four (44%) of responding Counties and 24% of responding Cities maintain more restrictive requirements (Figure 16). For example, Mendocino County maintains more restrictive requirements for certain developments within the established Coastal Zone, and ordinances have additional requirements (i.e., geologic assessment requirements if greater than 20% slope, bluff retreat analysis with minimum 75-year life span, etc.). Riverside County employs additional geotechnical guidelines not currently prescribed in law, and employs its own seismic hazards maps as most of the County has not been mapped by the State. San Bernardino County only exempts one residence, and only if it is less than three stories in height; whereas, the Act exempts single-family homes that do not exceed two stories in height and are not part of a development of four or more dwellings. The City of Pacifica relies on recommendations provided in the geotechnical report; whereas, the City of San Fernando adopted by reference the City of Los Angeles Building and Fire Codes. In Contra Costa County, if in the judgment of the County a residence is proposed that is likely to be astride an active trace, a study is required for a single-family residence.



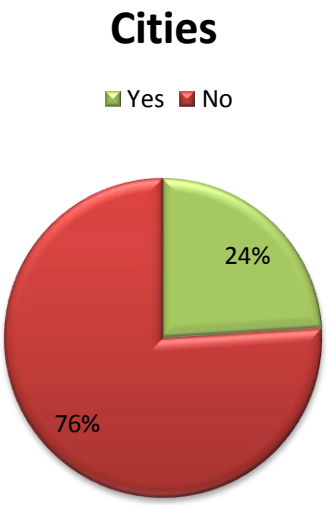


Figure 16: Pie graphs showing the percentage of Counties and Cities that have more restrictive requirements than State Law for developments within possible geologic hazards zones.

CONCLUSIONS AND RECOMMENDATIONS

Based on the survey's results summarized above, and based on those lead agencies affected by the Act and that responded to the survey, the following conclusions are offered:

- Slightly over two-thirds (69%) of Counties, and less than one-third (24%) of Cities affected by the AP Act responded to the questionnaire. This may be an indication that about one-third of the Counties and two-thirds of the Cities, at minimum, have a significant lack of knowledge of the Act, or are poorly implementing the AP Act.

- All responding lead agencies are familiar with the AP Act, and with Special Publication 42, Fault-Rupture Hazard Zones in California, and almost all have a set of the official EFZ maps for their respective area of jurisdiction.

- Sixty-eight percent (68%) of responding Counties require structural setbacks from active faults, with 28% allowing some form of structural mitigations for some faults. It is possible to lower the 28% to 12% for structural mitigation allowed by counties and increase the percentage requiring setbacks from 68% to 80%, based on our interpretation of the questionnaire responses. Forty-four (44%) of responding Cities require structural setbacks from active faults, with 28% allowing structural mitigations for some faults. It is possible to lower the 28% to about 18% for structural mitigation allowed by cities and increase the percentage requiring setbacks from 44% to 52%, based on our interpretation of the

questionnaire responses. Allowance for structural mitigation by lead agencies is currently inconsistent with state law and the SMGB's regulations.

- All Counties that responded require a geologic report for development projects which fall into an A-P study zone; whereas, 96% of Cities require such geologic report.

- Seventy-six percent (76%) of Counties require a geologic report for a single family home project which falls into an AP study zone; likewise, 76% of Cities require such geologic report.

- Ninety-two percent (92%) of Counties and 84% of Cities have a review process for geologic reports.

- Seventy-six (76%) of Counties and 84% of Cities have geologic reports reviewed by a California-registered geologists.

- Sixty percent (60%) of Counties and 52% of Cities file copies of the geologic report with CGS within 30 days after the reports are reviewed and approved.

- Forty-four (44%) of Counties and 24% of Cities have requirements more restrictive than State Law for developments within possible geologic hazard zones.

Based on the survey's results summarized above, the following recommendations directed toward lead agencies affected by the AP Act are offered:

- Enhance and expand outreach efforts toward those lead agencies affected by the AP Act, but were non-responsive, or there are indications that such lead agencies are poorly implementing the AP Act. These efforts could, for example, take the form of regional workshops.

- Explore funding sources at the State and Federal levels (i.e., grants, etc.) for outreach to lead agencies and the public in the implementation of State policy pertaining to the AP Act.

- Follow-up questionnaire for clarification to lead agencies that appears to allow for structural mitigation (question 4b) within an AP Earthquake Fault Zone. Questionnaire also should seek clarification for questions 4a, 5, 7-9. Negative responses to these questions imply non-compliance with the AP Act.

- CGS should make available on-line pdf and GIS files of AP Earthquake Fault Zone Maps for use by local lead agencies as well as other stakeholders.

REFERENCES

Bryant, W.A., and Hart, E.W., 2007, Fault-rupture hazard zones in California: California Geological Survey Special Publication 42, 42 p. (available on line at: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sp/Sp42.pdf).

County of Los Angeles Building Code, 2002, Section 110 – Prohibited Uses of Building Sites.

County of Los Angeles Building Code, 2002, Chapter 18, Foundations and Retaining Walls, Division 1 – General, Section 1801-1804.

County of Los Angeles Department of Public Works, Geotechnical and Materials Engineering Division, August 2005, *Manual for Preparation of Geotechnical Reports*, pp. 1-13.

APPENDECES

APPENDIX A

Survey Letter

STATE MINING AND GEOLOGY BOARD

DEPARTMENT OF CONSERVATION

801 K Street • Suite 2015 • Sacramento, California 95814

PHONE: 916 / 322-1082 • FAX: 916 / 445-0738 • TDD: 916 / 324-2555 • INTERNET: conservation.ca.gov/smgb

Allen M. Jones, Chair
Cheryl Bly-Chester, vice chair
Julian C. Isham
Seena Hoose
Kathy Lund
Erin Garner
Robert Tepel

December 6, 2007

_____
_____
_____

Re: Request for Lead Agency Assistance -State Mining and Geology Board Review of Alquist-Priolo Earthquake Fault Zoning Act

Dear_____:

As you are probably aware, the State Mining and Geology Board (SMGB) is authorized to represent the State's interests in establishing professional guidelines and standards for geological and geophysical investigations and reports produced by the California Geological Survey, public sector agencies, and private practitioners. The SMGB, also, is authorized to develop specific criteria through regulations that shall be used by affected Lead Agencies in complying with the provisions of the Act so as to protect the health, safety and welfare of the public. The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code, Chapter 7.5, Section 2621 through Section 2630) is intended to provide policies and criteria to assist cities, counties and state agencies in the exercise of their responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults as defined by the SMGB.

This Act was signed into law December 22, 1972, and went into effect March 7, 1973. Since such time, it has been amended several times. The SMGB is currently reviewing and considering changes to the Act's regulations. To aid the SMGB in its assessment, we would appreciate your response to the attached questionnaire.. Your response will be compiled along with others from lead agencies statewide, and used in the SMGB's deliberations.

We would appreciate receiving your response at the SMGB's office via mail or email (smgb@consrv.ca.gov) at your earliest convenience, but not later than January 31, 2008.

Thank you for your cooperation with this request. Please do not hesitate to contact us at (916) 322-1082 should you have any questions regarding this request.

Sincerely,

Stephen M. Testa
Executive Officer

Lead Agency Questionnaire

Q #	Question	YES	NO
1.	Is your agency familiar with the Alquist-Priolo Earthquake Fault Zoning Act?		
2.	Is your agency familiar with Special Publication 42, *Fault-Rupture Hazard Zones in California*?		
3.	Does your agency have a set of the Official EFZ maps for your area of jurisdiction?		
4.	Does your agency have its own ordinance that addresses any type of geologic hazard?		
	a. Does your agency require structural setbacks from active faults? If so, how is the setback established? _____ _____ _____		
	b. Do you allow structural mitigation for some faults? If so, what are they? _____ _____ _____		
5.	Does your agency require a geologic report for development projects which fall into an AP study zone?		
6.	Does your agency require a geologic report for a single family home project which fall into an AP study zone?		
7.	Does your agency have a review process for geologic reports?		
8.	Does your agency have geologic reports reviewed by a California-registered geologist?		
9.	Does your agency file a copy of the report with the California Geological Survey within 30 days after the reports are reviewed and approved?		
10.	Is your agency more restrictive than State Law with regard to requirements for developments within possible geologic hazard zones?		

Additional Comments: _____

APPENDIX B

Summary of Responses to Survey

Alquist-Priolo Act Questionnaire Summary of Responses

County (36)	1	2	3	4			5	6	7	8	9	10	Comments
				4	a	b							
Alameda	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	1. Recommendations for structural setbacks should be provided by the Project Geologist, and reviewed and approved by the County Geologist [4a]. 2. Only for minor alteration or addition to existing buildings [4b]. 3. For new buildings and major additions [6].
Alpine	Y	N	Y	N	N	N	Y	N	Y	N	N	N	
Butte	y	y	N R	N	Y	NR	Y	Y	N	Y	Y	N	1. If a property in an EFZ requires discretionary approval under CEQA, a geologic report is required; a 50-foot setback from any active fault is required [4a]. 2. Projects as defined pursuant to PRC Section 2621.6 only [5]. 3. Only discretionary projects under CEQA [6]. Changes to the A-P EFZ Act are less helpful to protecting public health and safety, than identification of other sufficiently active and well-defined faults that constitute a potential hazard [general].
Contra Costa	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	1. Setbacks are recommended by the project geologist and the County's consultant provides peer review; normally 50-foot setbacks are required [4a]. 2. If in the judgment of the County a residence is proposed that is likely to be astride an active trace, a study is required for a single-family residence; the guidelines are used in review of reports [10]. 3. The Consultant to the County also reviewed one report within an A-P EFZ for the City of Oakland, and contracted to perform reviews for Solano County (but has not received a report for review); all reports are forwarded along with peer review comments to CS; the SMGB's guidelines are excellent [general].
Humboldt	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	1. A structure for human

County (36)	1	2	3	4			5	6	7	8	9	10	Comments
				4	a	b							
													occupancy must be setback a minimum of 50 feet from the trace of an active fault, but this distance may be greater if required by the geologist [4a and 4b] 2. Yes unless an exemption applies; the exemption from the requirement of a Geologic Fault Evaluation Report applies to 1) construction, alteration, or addition of three or fewer single-family wood-frame dwellings or manufactured homes, provided that they do not exceed two stories, 1) construction, alteration, or addition of four or more single-family homes or manufactured homes, provided that they do not exceed two stories in height, and if the dwelling is located within a subdivision, as defined in the Subdivision Map Act, for which s ubdivision a Geologic Fault Evaluation Report has been approved or waived, 2) conversion of an existing apartment complex into condominiums, and 4) any other development that may be exempt or excluded pursuant to the A-P EFZ Act, commencing with PRC Section 2621, and following [5] 3. Not usually, refer to exemptions under question 5 above [6]. 4. Yes; the County does not have a geologist on staff at this time; the Department contracts for this review service with a California-Registered Geologist [7]. 5. Refer to response to question 7 above [8]. 6. Uncertain; the 50 foot setback is in the County's Code, but it is uncertain that it is a requirement of the A-P EFZ Act [general].
Inyo	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	1. 50-foot setback from active

County (36)	1	2	3	4			5	6	7	8	9	10	Comments
				4	a	b							
													faults [4a].
Kern	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	1. Generally established by the Fault-Rupture Hazard Report with minimum set by CCR Title 14, Division 2, Section 3603 [4a]. 2. With exception provided in Section 2621.6 [6].
Los Angeles	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	1. Yes; they are based on the report prepared by the geotechnical engineer hired by the applicant following Department of Public Works review [4a]. 2. If within 50 feet of mapped fault trace [6]. 3. Please not that all reports in Los Angeles County unincorporated territories are reviewed by the Department of Public Works, 900 S. Fremont Avenue, Alhambra, CA, 91803; the results of this review are forwarded to the Department of Regional Planning prior to public hearing [general].
Marin	Y	Y	N	Y	NR	NR	Y	Y	Y	N	N	N	1. As recommended by the applicant's structural engineer/geotechnical engineer [4a and b].
Mendocino	Y	N	Y	Y	NR	NR	Y	N	Y	Y	N	Y	1. No; did not research to find out what the publication is [2]. 2. Yes; setbacks determined by professional who prepared study; if structural requirements recommended by professional is to mitigate, such conditions would be imposed [4a]. 3. Yes; if property is within the Coastal Zone, ordinances have additional requirements (i.e., geologic assessment requirements if greater than 20% slope, bluff retreat analysis with minimum 75-year life span, etc.) [10].
Merced	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	N	1. As per engineered design in compliance with California building standards [4a].
Modoc	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	1. Case-by-case basis; on development permits (parcel maps, use permits, subdivision maps, etc.) geotechnical reports are required. Single-family

County (36)	1	2	3	4			5	6	7	8	9	10	Comments
				4	a	b							
													dwellings are exempt [4a]. 2. Case-by-case basis; not common; it may be allowed [4b].
Mono	Y	Y	Y	N	N	N	Y	N	Y	Y	NR	N	1. It would be helpful if the SMGB provided technical recommendations on projects when requested by a County or City, such as when there is a disagreement between the geologist that prepares a project report and the peer review geologist [general].
Napa	Y	Y	Y	Y	N	N	Y	Y	N	N	N	N	
Orange	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	1. Follow State guidelines [4a]. 2. Generally no; but if there are favorable circumstances that warrant consideration, the County would consider such if allowed by State guidelines [4b]. 3. It is rare for projects within the County to fall within the A-P EFZ Act; when they do, the County follows State guidelines, at minimum, and if warranted, would be more restrictive than State law [general].
Riverside	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	y	1. Determination based on consultant of record who is required to recommend setback, type of structure/use, and relative risk (qualitative assessment) [4a]. 2. Only for pre-Holocene faults; building astride an active fault is not allowed per current A-P regulations [4b]. 3. Review is performed by Professional Geologist or Certified Engineering Geologist [8]. 4. County employs additional geotechnical guidelines not currently prescribed in law, and employs its own seismic hazards maps as most of the County has not been mapped by the State [10].
San Bernardino	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	1. County maintains mylars and paper copies as well as download metadata incorporating it into County's GIS program; County also provides paper copies to the

County (36)	1	2	3	4			5	6	7	8	9	10	Comments
				4	a	b							
													public when requested [3]. 2. Yes; the County's Geologic Hazard Overlay District (GHOD) established by ordinance through the County Development Code; the GHOD includes A-P EFZ areas as well as areas of known liquefaction susceptibility and slope instability such as land sliding, debris flow and rock fall [4]. 3. Per the Development Code, a minimum setback of 50 feet is generally required; lesser setbacks may be considered from well-defined faulting exposed in pre-Holocene age materials [4a]. 4. The A-P EFZ Act currently does not allow placement of human occupancy structures across the trace of an active fault; the County does encourage structural mitigation for secondary failures such as seismically-induced tensional ground fissures [4b]. 5. An individual, one-or two-story residence, is currently exempt; however, a fault study is required for a single-family residence that is three or more stories in height [6]. 6. The A-P EFZ Act exempts up to four single-family homes; whereas, only one residence is exempted by the County, and only if it is less than three stories in height [10].
San Diego	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	1. 50-foot setback from active faults for any buildings to be used for human occupancy; setbacks established through geologic investigation of site [4a]. 2. No provisions for mitigation for an active fault [4b]. 3. Policy instituted to ensure geologic reports are sent to CGS within 30 days of these reports being reviewed and approved

County (36)	1	2	3	4			5	6	7	8	9	10	Comments
				4	a	b							
													[9].
San Mateo	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	
Santa Clara	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	1. Consulting geologist recommends requirements for a project, and the County Geologist approves or disapproves such report [4a]. 2. The County typically sends reports a batch at a time [9].
Siskiyou	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	1. 50 feet [4a]. 2. Not to my knowledge [4b].
Solano	Y	Y	N	NR	N	Y	Y	Y	Y	Y	Y	N	
Sonoma	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	1. Structures intended for human occupancy shall not be placed across, or within, 50 feet of the surface trace of any fault [4a]. 2. Only projects exempted per Section 2621.6(a)(2) of the Act [4b].
Stanislaus	Y	Y	NR	Y	NR	NR	Y	N	Y	N	NR	N	
Ventura	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

Responses (25 out of 36)

	1	2	3	4	4a	4b	5	6	7	8	9	10
Yes	25	23	21	20	17	7	25	19	23	19	15	11
No		2	2	4	5	14		6	2	6	8	14
No Response			2	1	3	4					2	

City (104)	1	2	3	4			5	6	7	8	9	10	Comments
				4	a	b							
Bakersfield	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	N	1. Set by CGS [4a].
Banning	Y	Y	Y	N	NR	NR	Y	Y	N	Y	N	N	1. Geotechnical reports that fall within A-P zones are reviewed by the Riverside County Geologist through an agreement [general].
Bishop	Y	Y	Y	NR	N	N	Y	N	NR	Y	Y	N	1. Yes but they are old; we plan to acquire electronic format mapping [3]. 2. No established policy [6]. 3. Informal [7].
Camarillo	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	1. Typically, a 50' setback is used for faults that cannot be demonstrated to be Pre-Holocene. Setbacks as low as 15' have been applied on some rare occasions, when there is sufficient justification for the lesser amount [4a]. 2. Outside of A.P. Zones, Camarillo faults that have been demonstrated to have the potential for incremental future offsets of less than 6" can be mitigated by the use of special structural design [4b].
Cathedral City	Y	N	N	N	NR	NR	Y	Y	N	Y	N	N	
Chino Hills	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	1. Setbacks from active faults are established through the geologic studies and reviews required during the review of tentative maps; the setback is typically 100 feet from the fault [4a].
Corona	Y	Y	Y	Y	N	N	Y	Y	Y	N	N	N	
Fremont	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	1. 50 feet from identified fault traces per General Plan [4a]. 2. City requires geologic reports and peer review for all subdivisions in regulatory hazard zones [10].
Huntington Beach	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	N	1. Projects involving construction within the vicinity of the fault will be exposed to significant

													seismic hazards should an earthquake occur along the A-P fault, and will be required to submit a seismic study specifying structural requirements. Other potential geologic hazards in Huntington Beach include peat, organic, soils, expansion soils, liquefaction, landslides, soil erosion, and loss of topsoil [Additional Comments].
Lake Elsinore	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	N	1. 50-foot setback required 9[4a]. 2. City would appreciate information on obligations of the City as far as reporting to the SMGB [general].
Loma Linda	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	1. The setback is 50 feet from an active fault unless and until proven by a geologic investigation prepared by a State-registered geologist [4a]. 2. Only as allowed by the California Building Code and as recommended by a State-registered geologist [4b].
Milpitas	Y	N	Y	N	Y	Y	Y	Y	Y	Y	N	N	
Monrovia	Y	Y	Y	Y	NR	NR	Y	Y	Y	Y	Y	N	1. Field exploration/actual location of fault; Soils Engineer and Geologist provide recommendations for City review [4a]. 2. Use of highest California Building Code seismic values; use steel reinforcement [4b].
Morgan Hill	Y	Y	NR	Y	Y	Y	Y	Y	Y	Y	N	Y	
Oakland	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	1. 50 foot setback from active trace as determined by peer review Engineering Geologist report based on field-determined trenching [4a]. 2. Require report if

													building is to be sited within 50 feet of an active or potential trace as shown on reference map [6].
Pacifica	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	1. Setbacks established by geotechnical report and peer review [4a]. 2. It is specified in the geotechnical report and other environmental documentation [4b]. 3. Depends upon recommendations in the geotechnical report [10].
Palmdale	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	
Redlands	Y	N	Y	N	NR	NR	Y	Y	Y	N	NR	N	1. Not sure [9]. 2. City has two A-P zones that pass through remote hillside areas of the community; given their remote locations, the City has not had requests for development in these areas [general].
Rialto	Y	Y	Y	Y	NR	N	Y	Y	Y	Y	Y	N	
San Fernando	Y	Y	Y	N	NR	NR	Y	Y	Y	Y	Y	Y	1. A consultant registered engineer reviews all plans [8]. 2. Routine follow-up with consultant [9]. 3. City adopts by reference the City of Los Angeles Building and Fire Codes [10].
San Jacinto	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N	N	1. Established by County Geologist after review of Geotechnical Study for a project [4a]. 2. On a case-by-case basis to meet requirements of the County Geologist [4b]. 3. These are exempt per PRC Section 26216(a)(2); the City would advise an applicant to prepare a report, but can not require it due to the exemption [6]. 4. The City request a set of the current EFZ maps [general].
Santa Rosa	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	N	
Twentynine	Y	Y	N	N	N	N	Y	N	Y	Y	N	N	

Palms													
Union City	Y	Y	N	N	NR	NR	Y	Y	Y	?	Y	N	1. Both Y and N were checked [8].
Upland	Y	Y	Y	N	N	N	N	N	N	N	N	N	
Responses (25 out of 104)													
	1	**2**	**3**	**4**	**4a**	**4b**	**5**	**6**	**7**	**8**	**9**	**10**	
Yes	25	22	21	11	11	7	24	19	21	21	13	6	
No		3	3	13	7	12	1	6	3	4	11	19	
No Response			1	1	7	6			1		1		
TOTAL RESPONSES (50 out of 140)													
	1	**2**	**3**	**4**	**4a**	**4b**	**5**	**6**	**7**	**8**	**9**	**10**	
Yes	50	45	42	31	28	14	49	38	44	40	28	17	
No		5	5	17	12	26	1	12	5	9	19	33	
No Response			3	2	10	10			1	1	3		

NOTE: Y = Yes
N = No
NR = No response.
[4a] = Refers to comment to specific question number.

APPENDIX C

Pertinent Statutory and Regulatory Requirements

PERTINENT STATUTORY REQUIREMENTS

PERTINENT SMGB REGULATIONS

Public Resources Code Division 2, Chapter 7.5
EARTHQUAKE FAULT ZONING

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT[1]
Excerpts from California Public Resources Code

DIVISION 2. Geology, Mines and Mining
CHAPTER 7.5 Earthquake Fault Zones[2]

2621. This chapter shall be known and may be cited as the Alquist-Priolo Earthquake Fault Zoning Act[2].

2621.5. (a) It is the purpose of this chapter to provide for the adoption and administration of zoning laws, ordinances, rules, and regulations by cities and counties in implementation of the general plan that is in effect in any city or county. The Legislature declares that this chapter is intended to provide policies and criteria to assist cities, counties, and state agencies in the exercise of their responsibility to prohibit the location of developments and structures for human occupancy across the trace of active faults. Further, it is the intent of this chapter to provide the citizens of the state with increased safety and to minimize the loss of life during and immediately following earthquakes by facilitating seismic retrofitting to strengthen buildings, including historical buildings, against ground shaking.

(b) This chapter is applicable to any project, as defined in Section 2621.6, which is located within a delineated earthquake fault zone, upon issuance of the official earthquake fault zones maps to affected local jurisdictions, except as provided in Section 2621.7.

(c) The implementation of this chapter shall be pursuant to policies and criteria established and adopted by the Board.[3]

2621.6 (a) As used in this chapter, “project” means either of the following:

(1) Any subdivision of land which is subject to the Subdivision Map Act, (Division 2 (commencing with Section 66410) of Title 7 of the Government Code), and which contemplates the eventual construction of structures for human occupancy.

(2) Structures for human occupancy, with the exception of either of the following:

(A) Single-family wood-frame or steel-frame dwellings to be built on parcels of land for which geologic reports have been approved pursuant to paragraph (1).

(B) A single-family wood-frame or steel-frame dwelling not exceeding two stories when that dwelling is not part of a development of four or more dwellings.

---

[1] Known as the Alquist-Priolo Special Studies Zones Act prior to January 1, 1994.
[2] Know as Special Studies Zones prior to January 1, 1994.
[3] State Mining and Geology Board.

(b) For the purposes of this chapter, a mobilehome whose body width exceeds eight feet shall be considered to be a single-family wood-frame dwelling not exceeding two stories.

2621.7. This chapter, except Section 2621.9, shall not apply to any of the following:

(a) The conversion of an existing apartment complex into a condominium.

(b) Any development or structure in existence prior to May 4, 1975, except for an alteration or addition to a structure that exceeds the value limit specified in subdivision (c).

(c) An alteration or addition to any structure if the value of the alteration or addition does not exceed 50 percent of the value of the structure.

(d) (1) Any structure located within the jurisdiction of the City of Berkeley or the City of Oakland which was
damaged by fire between October 20, 1991, and October 23, 1991, if granted an exemption pursuant to this subdivision.

(2) The city may apply to the State Geologist for an exemption and the State Geologist shall grant the exemption only if the structure located within the earthquake fault zone is not situated upon a trace of an active fault line, as delineated in an official earthquake fault zone map or in more recent geologic data, as determined by the State Geologist.

(3) When requesting an exemption, the city shall submit to the State Geologist all of the following information:

(A) Maps noting the parcel numbers of proposed building sites that are at least 50 feet from an identified fault and a statement that there is not any more recent information to indicate a geologic hazard.

(B) Identification of any sites within 50 feet of an identified fault.

(C) Proof that the property owner has been notified that the granting of an exemption is not any guarantee that a geologic hazard does not exist.

(4) The granting of an exemption does not relieve a seller of real property or an agent for the seller of the obligation to disclose to a prospective purchaser that the property is located within a delineated earthquake fault zone, as required by Section 2621.9.

(e) (1) Alterations which include seismic retrofitting, as defined in Section 8894.2 of the Government Code, to any of the following listed types of buildings in existence prior to May 4, 1975:

(A) Unreinforced masonry buildings, as described in subdivision (a) of Section 8875 of the Government Code.

(B) Concrete tilt-up buildings, as described in Section 8893 of the Government Code.

(C) Reinforced concrete moment resisting frame buildings as described in Applied Technology Council Report 21 (FEMA Report 154).

(2) The exemption granted by paragraph (1) shall not apply unless a city or county acts in accordance with all of the following:

(A) The building permit issued by the city or county for the alterations authorizes no greater human occupancy load, regardless of proposed use, than that authorized for the existing use permitted at the time the city or county grants the exemption. This may be accomplished by the city or county making a human occupancy load determination that is based on, and no greater than, the existing authorized use, and including that determination on the building permit application as well as a statement substantially as follows: "Under subparagraph (A) of paragraph (2) of subdivision (e) of Section 2621.7 of the Public Resources Code, the occupancy load is limited to the occupancy load for the last lawful use authorized or existing prior to the issuance of this building permit, as determined by the city or county."

(B) The city or county requires seismic retrofitting, as defined in Section 8894.2 of the Government Code, which is necessary to strengthen the entire structure and provide increased resistance to ground shaking from earthquakes.

(C) Exemptions granted pursuant to paragraph (1) are reported in writing to the State Geologist within 30 days of the building permit issuance date.

(3) Any structure with human occupancy restrictions under subparagraph (A) of paragraph (2) shall not be granted a new building permit that allows an increase in human occupancy unless a geologic report, prepared pursuant to subdivision (d) of Section 3603 of Title 14 of the California Code of Regulations in effect on January 1, 1994, demonstrates that the structure is not on the trace of an active fault, or the requirement of a geologic report has been waived pursuant to Section 2623.

(4) A qualified historical building within an earthquake fault zone that is exempt pursuant to this subdivision may be repaired or seismically retrofitted using the State Historical Building Code, except that, notwithstanding any provision of that building code and its implementing regulations, paragraph (2) shall apply.

2621.8. Notwithstanding Section 818.2 of the Government Code, a city or county which knowingly issues a permit that grants an exemption pursuant to subdivision (e) of Section 2621.7 that does not adhere to the requirements of paragraph (2) of subdivision (e) of Section 2621.7, may be liable for earthquake-related injuries or deaths caused by failure to so adhere.

2621.9. (a) A person who is acting as an agent for a transferor of real property that is located within a delineated earthquake fault zone, or the transferor, if he or she is acting without an agent, shall disclose to any prospective transferee the fact that the property is located within a delineated earthquake fault zone.

(b) Disclosure is required pursuant to this section only when one of the following conditions is met:

(1) The transferor, or the transferor's agent, has actual knowledge that the property is within a delineated earthquake fault zone.

(2) A map that includes the property has been provided to the city or county pursuant to Section 2622, and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the map and any information regarding changes to the map received by the county.

(c) In all transactions that are subject to Section 1103 of the Civil Code, the disclosure required by subdivision (a) of this section shall be provided by either of the following means:

(1) The Local Option Real Estate Transfer Disclosure Statement as provided in Section 1102.6a of the Civil Code.

(2) The Natural Hazard Disclosure Statement as provided in Section 1103.2 of the Civil Code.

(d) If the map or accompanying information is not of sufficient accuracy or scale that a reasonable person can determine if the subject real property is included in a delineated earthquake fault hazard zone, the agent shall mark "Yes" on the Natural Hazard Disclosure Statement. The agent may mark "No" on the Natural Hazard Disclosure Statement if he or she attaches a report prepared pursuant to subdivision (c) of Section 1103.4 of the Civil Code that verifies the property is not in the hazard zone. Nothing in this subdivision is intended to limit or abridge any existing duty of the transferor or the transferor's agents to exercise reasonable care in making a determination under this subdivision.

(e) For purposes of the disclosures required by this section, the following persons shall not be deemed agents of the transferor:

(1) Persons specified in Section 1103.11 of the Civil Code.

(2) Persons acting under a power of sale regulated by Section 2924 of the Civil Code.

(f) For purposes of this section, Section 1103.13 of the Civil Code shall apply.

(g) The specification of items for disclosure in this section does not limit or abridge any obligation for disclosure created by any other provision of law or that may exist in order to avoid fraud, misrepresentation, or deceit in the transfer transaction.

2622. (a) In order to assist cities and counties in their planning, zoning, and building-regulation functions, the State
Geologist shall delineate, by December 31, 1973, appropriately wide earthquake fault zones to encompass all potentially and recently active traces of the San Andreas, Calaveras, Hayward, and San Jacinto Faults, and such other faults, or segments thereof, as the State Geologist determines to be sufficiently active and well-defined as to constitute a potential hazard to structures from surface faulting or fault creep. The earthquake fault zones shall ordinarily be one-quarter mile or less in width, except in circumstances which may require the State Geologist to designate a wider zone.

(b) Pursuant to this section, the State Geologist shall compile maps delineating the earthquake fault zones and shall submit the maps to all affected cities, counties, and state agencies, not later than December 31, 1973, for review and comment. Concerned jurisdictions and agencies shall submit all comments to the State Mining and Geology Board for review and consideration within 90 days. Within 90 days of such review, the State Geologist shall provide copies of the official maps to concerned state agencies and to each city or county having jurisdiction over lands lying within any such zone.

(c) The State Geologist shall continually review new geologic and seismic data and shall revise the earthquake fault zones or delineate additional earthquake fault zones when warranted by new information. The State Geologist shall submit all revised maps

and additional maps to all affected cities, counties, and state agencies for their review and comment. Concerned jurisdictions and agencies shall submit all comments to the State Mining and Geology Board for review and consideration within 90 days. Within 90 days of that review, the State Geologist shall provide copies of the revised and additional official maps to concerned state agencies and to each city or county having jurisdiction over lands lying within the earthquake fault zone.

(d) In order to ensure that sellers of real property and their agents are adequately informed, any county that receives an official map pursuant to this section shall post a notice within five days of receipt of the map at the offices of the county recorder, county assessor, and county planning commission, identifying the location of the map and the effective date of the notice.

2623. (a) The approval of a project by a city or county shall be in accordance with policies and criteria established by the State Mining and Geology Board and the findings of the State Geologist. In the development of such policies and criteria, the State Mining and Geology Board shall seek the comment and advice of affected cities, counties, and state agencies. Cities and counties shall require, prior to the approval of a project, a geologic report defining and delineating any hazard of surface fault rupture. If the city or county finds that no undue hazard of that kind exists, the geologic report on the hazard may be waived, with the approval of the State Geologist.

(b) After a report has been approved or a waiver granted, subsequent geologic reports shall not be required, provided that new geologic data warranting further investigations is not recorded.

(c) The preparation of geologic reports that are required pursuant to this section for multiple projects may be undertaken by a geologic hazard abatement district.

2624. Notwithstanding any provision of this chapter, cities and counties may do any of the following:

(1) Establish policies and criteria which are stricter than those established by this chapter.

(2) Impose and collect fees in addition to those required under this chapter.

(3) Determine not to grant exemptions authorized under this chapter.

2625. (a) Each applicant for approval of a project may be charged a reasonable fee by the city or county having jurisdiction over the project.

(b) Such fees shall be set in an amount sufficient to meet, but not to exceed, the costs to the city or county of administering and complying with the provisions of this chapter.

(c) The geologic report required by Section 2623 shall be in sufficient detail to meet the criteria and policies established by the State Mining and Geology Board for individual parcels of land.

2630. In carrying out the provisions of this chapter, the State Geologist and the board shall be advised by the Seismic Safety Commission.

SIGNED INTO LAW DECEMBER 22, 1972; AMENDED SEPTEMBER 16, 1974, MAY 4, 1975, SEPTEMBER 28, 1975, SEPTEMBER 22, 1976, SEPTEMBER 27, 1979, SEPTEMBER 21, 1990, JULY 29, 1991, AUGUST 16, 1992, JULY 25, 1993, OCTOBER 7, 1993, AND OCTOBER 7, 1997

Title 14 Article 3 California Code of Regulations
POLICIES AND CRITERIA OF THE
STATE MINING AND GEOLOGY BOARD
With Reference to the
Alquist-Priolo Earthquake Fault Zoning Act

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ARTICLE 3.
Policies and Criteria of the
State Mining and Geology Board
With Reference to the
Alquist-Priolo Earthquake Fault Zoning Act

3600. It is the purpose of this subchapter to set forth the policies and criteria of the State Mining and Geology Board, hereinafter referred to as the "Board," governing the exercise of city, county, and state agency responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults in accordance with the provisions of Public Resources Code Section 2621 et seq. (Alquist-Priolo Earthquake Fault Zoning Act). The policies and criteria set forth herein shall be limited to potential hazards resulting from surface faulting or fault creep within earthquake fault zones delineated on maps officially issued by the State Geologist.

Authority cited: Section 2621.5, Public Resources Code
Reference: Sections 2621-2630, Public Resources Code

3601. The following definitions as used within the Act and herein shall apply:

(a) An "active fault" is a fault that has had surface displacement within Holocene time (about the last 11,000 years), hence constituting a potential hazard to structures that might be located across it.

(b) A "fault trace" is that line formed by the intersection of a fault and the earth's surface, and is the representation of a fault as depicted on a map, including maps of earthquake fault zones.

(c) A "lead agency" is the city or county with the authority to approve projects.

(d) "Earthquake fault zones" are the areas delineated by the State Geologist, pursuant to the Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621 et seq.) and this subchapter, which encompass the traces of active faults.

(e) A "structure for human occupancy" is any structure used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year.

(f) "Story" is that portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. For the purpose of the Act and this subchapter, the number of stories in a building is equal to the number of distinct floor levels, provided that any levels that differ from each other by less than two feet shall be considered as one distinct level.

Authority cited: Section 2621.5, Public Resources Code
Reference: Sections 2621-2630, Public Resources Code

3602. (a) Within 45 days from the issuance of proposed new or revised preliminary earthquake fault zone map(s), cities and counties shall give notice of the Board's announcement of a ninety (90) day public comment period to property owners within the area of the proposed zone. The notice shall be by publication, or other means reasonably calculated to reach as many of the affected property owners as feasible. Cities and counties may also give notice to consultants who may conduct geologic studies in fault zones. The notice shall state that its purpose is to provide an opportunity for public comment including providing to the Board geologic information that may have a bearing on the proposed map(s).

(b) The Board shall also give notice by mail to those California Registered Geologists and California Registered Geophysicists on a list provided by the California Board for Geologists and Geophysicists. The notice shall indicate the affected jurisdictions and state that its purpose is to provide an opportunity to present written technical comments that may have a bearing on the proposed zone map(s) to the Board during a 90-day public comment period.

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

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

Authority cited: Section 2621.5, Public Resources Code
Reference: Section 2622, Public Resources Code

3603. The following specific criteria shall apply within earthquake fault zones and shall be used by affected lead agencies in complying with the provisions of the Act:

(a) No structure for human occupancy, identified as a project under Section 2621.6 of the Act, shall be permitted to be placed across the trace of an active fault. Furthermore, as the area within fifty (50) feet of such active faults shall be presumed to be underlain by active branches of that fault unless proven otherwise by an appropriate geologic investigation and report prepared as specified in Section 3603(d) of this subchapter, no such structures shall be permitted in this area.

(b) Affected lead agencies, upon receipt of official earthquake fault zone maps, shall provide for disclosure of delineated earthquake fault zones to the public. Such disclosure may be by reference in the general plan, specific plans, property maps, or other appropriate local maps.

(c) No change in use or character of occupancy, which results in the conversion of a building or structure from one not used for human occupancy to one that is so used, shall be permitted unless the building or structure complies with the provisions of the Act.

(d) Application for a development permit for any project within a delineated earthquake fault zone shall be accompanied by a geologic report prepared by a geologist registered in the State of California, which is directed to the problem of potential surface fault displacement through the project site, unless such report is waived pursuant to Section 2623 of the Act. The required report shall be based on a geologic investigation designed to identify the location, recency, and nature of faulting that may have affected the project site in the future. The report may be combined with other geological or geotechnical reports.

(e) A geologist registered in the State of California, within or retained by each lead agency, shall evaluate the geologic reports required herein and advise the agency.

(f) One (1) copy of all such geologic reports shall be filed with the State Geologist by the lead agency within thirty (30) days following the reports acceptance. The State Geologist shall place such reports on open file.

Authority cited: Section 2621.5, Public Resources Code
Reference: Sections 2621.5, 2622, 2623, and 2625(c), Public Resources Code