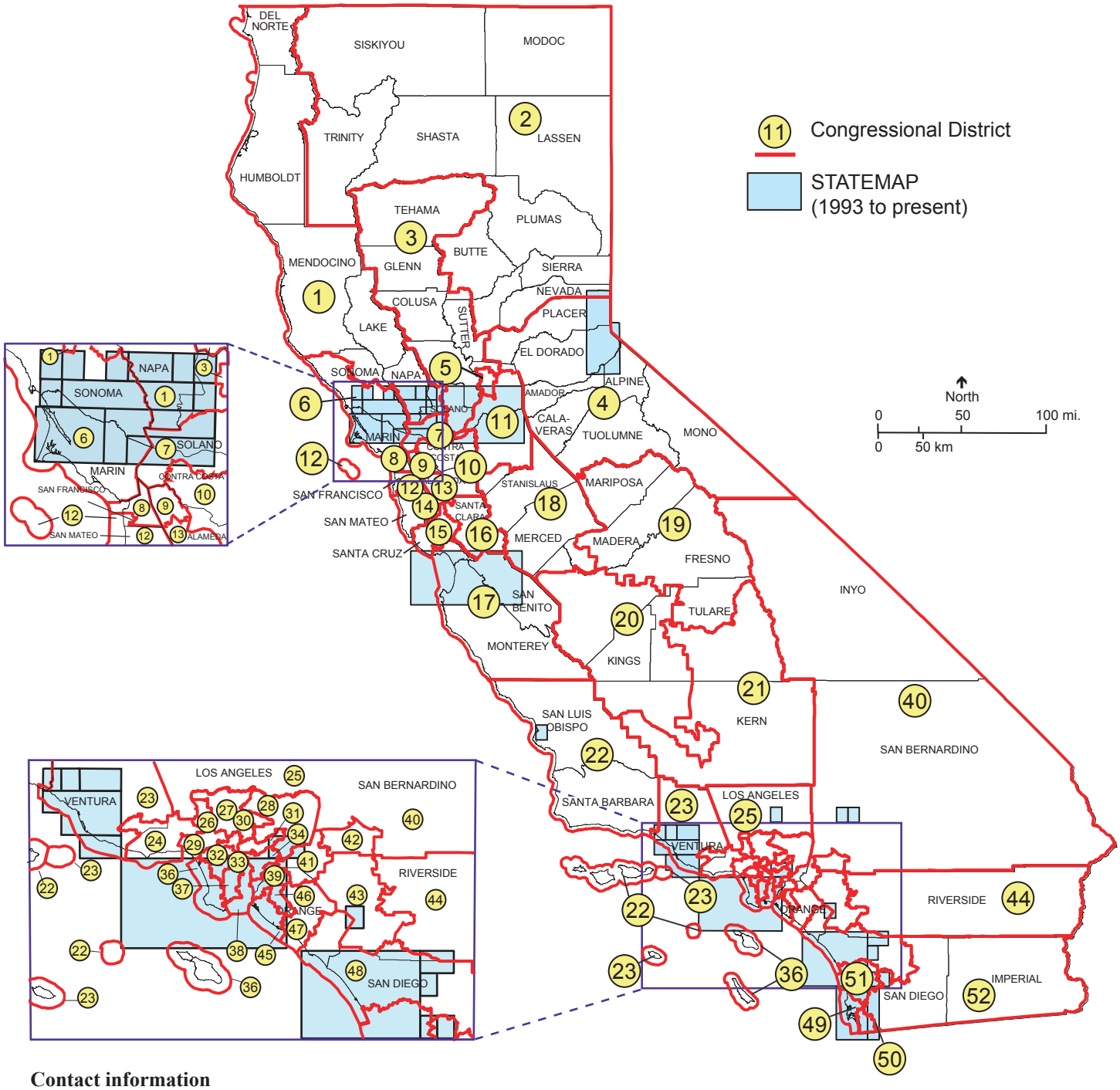
Association of American State Geologists

United States Geological Survey

National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping

CALIFORNIA



Contact information

California Department of Conservation
California Geological Survey
State Geologist: John G. Parrish, Ph.D. (916-445-1923)
STATEMAP Contact: George J. Saucedo (650-688-6368)
http://www.conservation.ca.gov/cgs

U.S.G.S. Geologic Mapping Program Office
Program Coordinator: Peter T. Lyttle (703-648-6943)
Associate Program Coordinators:
Randall C. Orndorff (703-648-4316)
Linda J. Jacobsen (703-648-4335)
http://ncgmp.usgs.gov/

SUMMARY OF STATEMAP
GEOLOGIC MAPPING PROGRAM IN CALIFORNIA

Federal Fiscal Year	Projects/Scale	State Dollars	Federal Dollars	Total Project Dollars
1993	Geology of Southwestern California (Part 1)/1:100,000	105,713	80,000	185,713
1994	Geology of Southwestern California (Part 2)/1:100,000	55,000	55,000	110,000
1995	Geologic Map of the Whittier 7.5' quadrangle/1:24,000	66,672	50,000	116,672
1996	Geology of the Long Beach quadrangle/1:100,000; Geology of the El Monte and Baldwin Park 7.5' quadrangles/1:24,000	127,806	127,806	255,612
1997	Geology of the Monterey quadrangle (Part 1)/1:100,000; Geology of the Cordelia and Fairfield South 7.5' quadrangles/1:24,000	158,034	107,624	265,658
1998	Geology of the Monterey (Part 2) and San Diego quadrangles/1:100,000; Geology of the Dana Point, San Clemente, San Onofre Bluff, Valley Center, and Escondido 7.5' quadrangles/1:24,000	157,680	157,680	315,360
1999	Geology of the Fallbrook, Temecula, Pechanga, Bonsall, and Pala 7.5' quadrangles /1:24,000	111,551	111,551	223,102
2000	Geology of the Margarita Peak, Morro Hill, and Las Pulgas Canyon 7.5' quadrangles /1:24,000	100,078	100,078	200,156
2001	Geology of the Cuttings Wharf, Sears Point, Petaluma, Petaluma River, Novato, San Vicente Reservoir, El Cajon, Jamul Mountains, and Otay Mesa 7.5' quadrangles /1:24,000; Geology of the Lake Tahoe Basin and Geology of the Oceanside quadrangle/1:100,000	311,869	311,869	623,738
2002	Geology of the Two Rock, Cotati, Glen Ellen, Pitas Point, Ventura, Oxnard, Point Mugu, Vail Lake, and Aguanga 7.5' quadrangles/ 1:24,000; Revised Geology of the Long Beach quadrangle/1:100,000	333,630	333,630	667,260
2003	Geology of the Sonoma, Napa, Mt. George, Saticoy, Santa Paula, White Ledge Peak, and Camarillo 7.5' quadrangles/1:24,000	296,980	296,980	593,960
2004	Geology of the Rutherford, Yountville, Ojai, and Santa Paula Peak 7.5' quadrangles/1:24,000	275,275	275,275	550,550
2005	Geology of the Capell Valley, Fairfield North, Matilija, Boucher Hill, and Ramona 7.5' quadrangles/1:24,000; Geology of the South Half of the Napa quadrangle /1:100,000	355,939	355,939	711,878
2006	Geology of the Kenwood, Mt. Vaca, Apple Valley North, and San Pasqual 7.5' quadrangles/1:24,000	210,217	210,217	420,434
2007	Geology of the Sebastopol, Valley Ford, and Victorville 7.5' quadrangles/1:24,000; Geology of the onshore East Half of the Santa Barbara quadrangle/1:100,000.	221,167	221,167	442,334
2008	Geology of the Camp Meeker, Morro Bay South, and Palmdale 7.5' quadrangles /1:24,000; Geology of the Lodi quadrangle/1:100,000.	217,840	217,840	435,680
	TOTALS	$3,105,451	$3,012,656	$6,118,107

Nowhere in the United States are so many people confronted with so many geologic hazards as they are in California. Over 75% of the state's 37 million people reside in the tectonically active coastal regions. Dollar losses due to earthquakes, landslides, and other geologic hazards amount to hundreds of millions each year. The basic data used in efforts to reduce these losses come in part from geologic maps. The STATEMAP part of the National Cooperative Geologic Mapping Program has significantly enhanced the Department of Conservation California Geological Survey's (CGS) ability to produce new geologic maps in California. This new geologic map information is regularly incorporated into decision making on a wide variety of local and regional issues that include geologic-hazard mitigation, land-use planning, mineral resource evaluation, and watershed-basin analysis. Detailed geologic mapping (1:24,000-scale), supported by STATEMAP, is used extensively by the CGS Seismic Hazard Mapping Program. The Program, initiated by the California Seismic Hazards Mapping Act of 1990, identifies areas where earthquakes are likely to cause liquefaction, landslides, or other ground failures, and provides regulatory maps to local agencies. The program goal is to improve public safety through construction of safer homes and other buildings. STATEMAP-supported mapping also provides the basic geologic data that enables CGS to improve estimates of predicted earthquake ground shaking that is integrated into California's building codes. STATEMAP products are also used by CGS programs dealing with forestry, watershed, and water quality issues as well as landslide mapping along California's highway corridors. Geologic maps and the supporting digital databases are useful in meeting the varying needs of our stakeholders and their clients. Geologic mapping supported by STATEMAP has proved to be a valuable resource for engineering and environmental consultants, as well as educators. A consultant in southern California found a STATEMAP product to be timely and very useful in updating the Safety Element of the General Plan for the Town of Apple Valley and points out that the geotechnical community relies heavily on published geologic maps in their work. Another consulting firm is using the geologic GIS data, prepared as part of a STATEMAP-funded project, for groundwater related investigations and assessments. The comments CGS receives illustrate the importance of up-to-date geologic maps and digital data and the necessity for continued STATEMAP support in California.

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