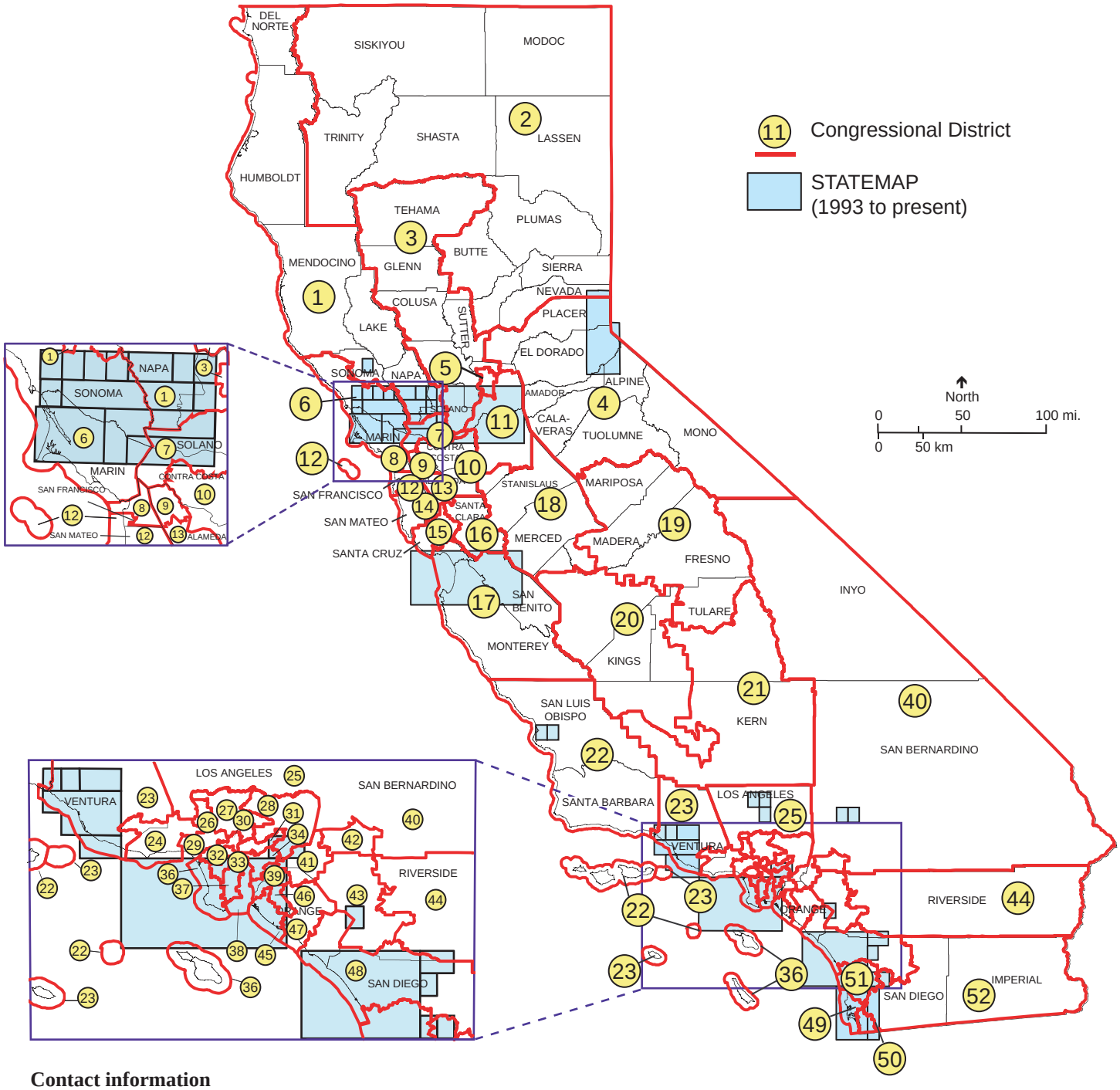
Association of American State Geologists

United States Geological Survey

National Cooperative Geologic Mapping Program

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

CALIFORNIA



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SUMMARY OF STATEMAP
GEOLOGIC MAPPING PROGRAM IN CALIFORNIA

Federal FY	Geologic Mapping Projects 7.5' quadrangles = 1:24,000 scale 30'x60' quadrangles = 1:100,000 scale	State Dollars	Federal Dollars	Total 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	7.5' - Whittier	66,672	50,000	116,672
1996	7.5' - El Monte and Baldwin Park 30'x60' - Long Beach	127,806	127,806	255,612
1997	7.5' - Cordelia and Fairfield South 30'x60' - Monterey quadrangle (Part 1)	158,034	107,624	265,658
1998	7.5' - Dana Point, San Clemente, San Onofre Bluff, Valley Center, and Escondido 30'x60' - Monterey quadrangle (Part 2) and San Diego	157,680	157,680	315,360
1999	7.5' - Fallbrook, Temecula, Pechanga, Bonsall, and Pala	111,551	111,551	223,102
2000	7.5' - Margarita Peak, Morro Hill, and Las Pulgas Canyon	100,078	100,078	200,156
2001	7.5' - Cuttings Wharf, Sears Point, Petaluma, Petaluma River, Novato, San Vicente Reservoir, El Cajon, Jamul Mountains, and Otay Mesa 30'x60' - Oceanside and *Lake Tahoe Basin (*1:100,000 scale special map)	311,869	311,869	623,738
2002	7.5' - Two Rock, Cotati, Glen Ellen, Pitas Point, Ventura, Oxnard, Point Mugu, Vail Lake, and Aguanga 30'x60' - Long Beach quadrangle (revised)	333,630	333,630	667,260
2003	7.5' - Sonoma, Napa, Mt. George, Saticoy, Santa Paula, White Ledge Peak, and Camarillo	296,980	296,980	593,960
2004	7.5' - Rutherford, Yountville, Ojai, and Santa Paula Peak	275,275	275,275	550,550
2005	7.5' - Capell Valley, Fairfield North, Matilija, Boucher Hill, and Ramona 30'x60' - south half of Napa	355,939	355,939	711,878
2006	7.5' - Kenwood, Mt. Vaca, Apple Valley North, and San Pasqual	210,217	210,217	420,434
2007	7.5' - Sebastopol, Valley Ford, and Victorville 30'x60' - onshore east half of Santa Barbara	221,167	221,167	442,334
2008	7.5' - Camp Meeker, Morro Bay South, and Ritter Ridge 30'x60' - Lodi	217,840	217,840	435,680
2009	7.5' - Jimtown, San Luis Obispo, Del Sur, and Lancaster West 30'x60' - Napa	226,034	226,034	452,068
	TOTALS	$3,331,485	$3,238,690	$6,570,175

Nowhere in the United States are so many people faced 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 to reduce these losses come in part from geologic maps. The STATEMAP part of the National Cooperative Geologic Mapping Program has significantly enhanced the California Geological Survey's (CGS) ability to produce new geologic maps. Geologic map information is regularly incorporated into decision making on a 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 buildings. STATEMAP-supported mapping also provides the basic data that enables CGS to improve estimates of 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. 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 continues to be a valuable resource for governmental agencies, engineering and environmental consultants, and educators throughout the state. In northern California, the National Park Service incorporated geologic map data into their database for use by resource managers and researchers. The Sonoma Ecology Center describes a variety of uses including stream sediment analysis, groundwater recharge analysis, and educational outreach. In southern California, the City of San Diego uses STATEMAP funded digital geologic data as a guideline for the level of analysis needed in engineering and environmental projects. Consulting geologists and engineering firms use CGS's GIS data for assessing geologic hazards throughout the state. 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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