

City of San Diego
SEISMIC SAFETY STUDY
Geologic Hazards and Faults

Updated 2008

(Explanation Revised and Updated 2018)



Development Services Department

Disclaimer

The information presented on these maps is primarily intended for planning purposes and should not be construed as definitive data for a specific site. The information presented is a collection of the most readily available data at the time of compilation. As much of the information was transferred from maps of differing scales, the accuracy is limited.

Every reasonable effort has been made to assure the accuracy of this map. However, neither the SanGIS participants nor San Diego Data Processing Corporation assume any liability arising from its use.

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SAN DIEGO SEISMIC SAFETY STUDY

Introduction

The first edition of the San Diego Seismic Safety Study (SDSSS) was completed and adopted by City Council (Resolution 2111594) on September 19, 1974 to comply with California regulations requiring cities to adopt a Seismic Safety Element within their General Plan. The 1974 SDSSS includes a map of the city that identified "geo-technical" risk zones. The map has been subsequently updated.

The current SDSSS *Geologic Hazard and Fault Maps* were updated in 2008 and consist of 49 grid tiles (map sheets) that cover the city. The grids are defined by California State Plane coordinates (NAD 27) and the maps provide latitude and longitude coordinates. At 100 percent size, the map scale is 1 inch equals 800 feet (1:9600) and the standard grid tiles are 16,000-feet north to south and 24,000-feet east to west. Topographic contours are 20-feet.

For the purposes of the SDSSS, the area within the city is divided into (i.e., mapped as) geologic hazard categories based on known or suspected hazard type and the interpreted relative risk of the hazard (see explanation on next sheet). Because of this mapping method, most areas of the city are covered by only one geologic hazard category; however, there could be more than one geologic hazard at a particular site. Some known or suspected faults are shown as lines and zones that may overlay other mapped geologic hazard categories.

Use of the Geologic Hazard and Fault Maps

The *Geologic Hazard and Fault Maps* may be used for planning purposes to identify the possible or likely types and risk of geologic hazards for a particular site. The maps are of limited accuracy and based largely on reconnaissance-style regional geologic mapping and geologic interpretation of aerial photographs. These maps are not a substitute for a site specific geologic or geotechnical investigation.

For information regarding geologic and geotechnical investigations and reporting, refer to the *Guidelines for Geotechnical Reports*. Geotechnical report requirements for proposed development and grading permits are described in *Information Bulletin 515*. Geotechnical report requirements for proposed building permits are provided in *San Diego Municipal Code 145.1803* and *Information Bulletin 141*. The *Geologic Hazard and Fault Maps* may be used with these documents to determine the submittal requirements for proposed development and construction projects with respect to geotechnical investigation reports. These documents are available on the City of San Diego website.

For additional information on geologic maps and geologic hazards visit the California Geological Survey website.

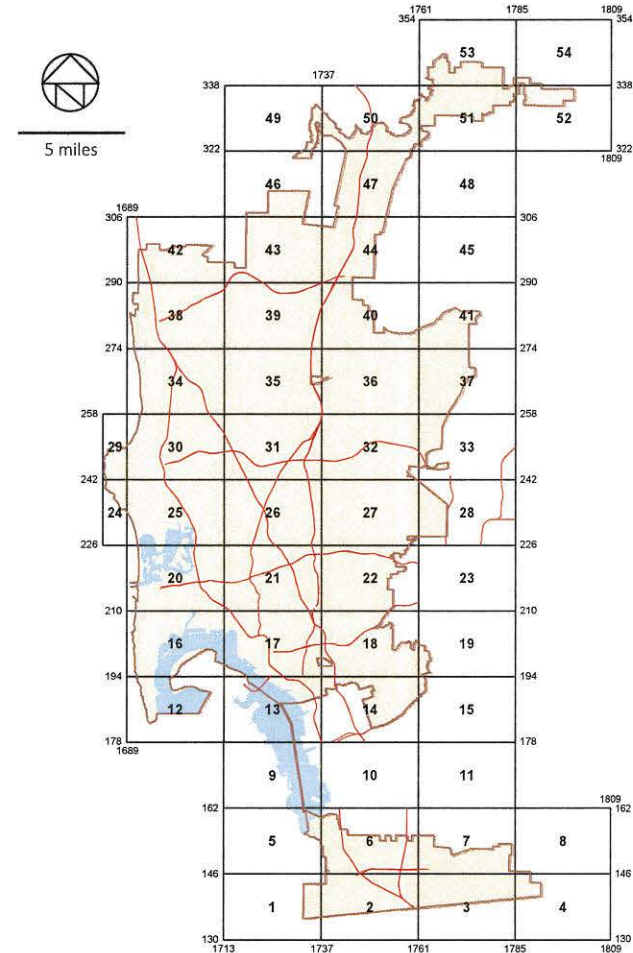


Every measure which has been made in accordance with the provisions of this act, shall be subject to the approval of the State Seismicity Commission and the State Department of Public Safety.

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Index Map to Grid Tiles (NAD 27)



SAN DIEGO SEISMIC SAFETY STUDY: EXPLANATION

Geologic Hazard Categories and Relative Risk Matrix

Additional Fault Information

Map Symbols

Type of Hazard	Geologic Hazard Categories	Relative Risk			
		Nominal	Low	Moderate	High
Ground Rupture	11 Active, Alquist-Priolo Earthquake Fault Zone				●
	12 Potentially Active Inactive, Presumed Inactive, or Activity Unknown		●	●	
	13 Downtown special fault zone			●	●
Potential Slope Instability	21 Confirmed, known, or highly suspected				●
	22 Possible or conjectured			●	
	23 Friars: neutral or favorable geologic structure		●	●	
	24 Friars: unfavorable geologic structure			●	
	25 Ardath: neutral or favorable geologic structure		●	●	
	26 Ardath: unfavorable geologic structure			●	
	27 Otay, Sweetwater, and others		●	●	
Potential Ground Failure	31 High Potential – shallow groundwater major drainages, hydraulic fills			●	●
	32 Low Potential – fluctuating groundwater minor drainages		●		
Coastal Bluff Stability	41 Generally unstable: Numerous landslides, high steep bluffs, severe erosion, unfavorable geologic structure				●
	42 Generally unstable: Unfavorable bedding plains, high erosion			●	●
	43 Generally unstable: Unfavorable jointing, local high erosion			●	
	44 Moderately stable: Mostly stable formations, local high erosion		●	●	
	45 Moderately stable: Some minor landslides, minor erosion		●		
	46 Moderately stable: Some unfavorable geologic structure, minor or no erosion		●		
	47 Generally stable: Favorable geologic structure, minor or no erosion, no landslides		●		
	48 Generally stable: Broad beach areas, developed harbor	●	●		
All Other Conditions	51 Level mesas – underlain by terrace deposits and bedrock: nominal risk	●			
	52 Other level areas, gently sloping to steep terrain, favorable geologic structure, Low risk		●		
	53 Level or sloping terrain, unfavorable geologic structure, Low to moderate risk		●	●	
	54 Steeply sloping terrain, unfavorable or fault controlled geologic structure, Moderate risk			●	
	55 Modified terrain (graded sites) Nominal risk	●			

Geologic Hazard Category 11 represents the State of California Alquist-Priolo Earthquake Fault Zone. Refer to the California Geological Survey for updated information on the location of the State of California Alquist-Priolo Earthquake Fault Zones.

Geologic Hazard Category 12 represents an area 100-feet on both sides of mapped faults.






Geologic Hazard Category 13 represents the downtown special fault zone, which is defined as the area: Beginning at the intersection of the centerline of Laurel Street and the centerline of Highway 163, thence in a general westerly and southwesterly direction along the centerline of Laurel Street to the intersection of the centerline of Harbor Drive, thence westerly to intersection of the U.S. Bulkhead line of San Diego Bay, thence in a general southerly and southeasterly direction along said Bulkhead line to an intersection of the southwesterly prolongation of the centerline of 28th Street, thence northerly along the centerline of 28th Street to the intersection of the centerline of Ocean View Boulevard, thence northwesterly along the centerline of Ocean View Boulevard to the intersection of the centerline of 25th Street to the intersection of the centerline of Russ Boulevard, thence westerly along the prolongation of the centerline of Russ Boulevard to the intersection of the centerline of Highway I-5, thence in a general northerly and westerly direction along the centerline of Highway I-5 to the intersection of the centerline of Highway 163, thence generally northerly along the centerline of Highway 163 to the point of place of beginning.

Notes:

Fault Zones represent possible limits within which faults could be located. Area concept required due to possible plotting errors from different scale and accuracy of source maps.

All fault locations are based on best interpretation of available data at the time of compilation. Often, due to the extreme differences in scale between the data source and this map, interpretation of the location of the fault, inferred fault, or concealed fault was required.

There is a high degree of probability that the fault location will lie within the lines shown; however, potentially hazardous faults may occur outside of the fault zone. Limits are included to indicate suggested area for exploration in order to accurately determine the location of faulting.

-  Approximate contact between mapped geologic hazard categories
-  Approximate fault location
-  Inferred fault location
-  Approximate location of concealed fault
-  Shear zone
- $\frac{U}{D}$ Relative vertical movement on fault (U-up, D-down)

55 Geologic hazard category



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