



**POSITION DUTY STATEMENT**

<b>NAME</b>	<b>MCR</b> I
<b>CLASSIFICATION</b> Engineering Geologist	<b>POSITION NUMBER</b> 538-104-3756-100
<b>WORKING TITLE</b> Geologic and Landslide Mapping Engineering Geologist	<b>DIVISION/UNIT</b> California Geological Survey (CGS) / Regional Geologic and Landslide Mapping Program (RGLMP)
<b>EFFECTIVE DATE</b>	<b>LOCATION</b> Los Angeles
<b>BARGAINING UNIT</b> R09	<b>CONFLICT OF INTEREST CATEGORY</b> 3, 7

**DEPARTMENT STATEMENT:** All employees are responsible for contributing to an inclusive, safe, and secure work environment that values diverse cultures, perspectives, and experiences, and is free from discrimination. You are expected to work cooperatively with team members and others to enable the Department to provide the highest level of service possible. Your efforts to maintain regular attendance and treat others fairly, honestly, and with respect are critical to the success of the Department’s mission and vision.

**GENERAL STATEMENT:** Under direction of the Senior Engineering Geologist (Supervisor), the Engineering Geologist is responsible for preparing various types of detailed geologic maps and preparing reports to accompany them, and for preparing highly specialized review comments on geologic and geotechnical reports prepared for critical facilities throughout California, including schools and hospitals, that address the potential for geologic and seismic hazards. Duties include, but are not limited to:

A. **SPECIFIC ACTIVITIES: ESSENTIAL / MARGINAL FUNCTIONS**

• **ESSENTIAL FUNCTIONS**

○ **40% Geologic Mapping, Hazard Mapping, and Reporting**

Uses aerial and satellite imagery, digital topography, field mapping techniques, subsurface data, geochronology data, and existing geologic map data to prepare digital geologic maps depicting the extents of mappable bedrock and Quaternary geologic units, existing landslides, faults, and geologic structure data. Uses geomorphic techniques, field mapping techniques, subsurface investigation data, groundwater data, and other existing data to prepare seismic hazard zones of required investigation for earthquake fault rupture, earthquake-induced landslides and/or soil liquefaction. Uses digital geographic information systems (GIS) methods for map preparation. Writes reports summarizing regional geology, geologic unit descriptions, landslide characteristics, evidence of active faulting, seismic hazard zone delineation, geologic material engineering properties, seismicity, and the analyses used to prepare maps. Works with professional peers in CGS, other governmental agencies, academia, and private industry to support a state-of-the-art mapping program and assist in technology transfer.

- **40% Site Safety Analysis for Critical Facilities**  
Reviews engineering geologic and geotechnical reports that were prepared by others using spreadsheets and other analytical tools, statewide probabilistic ground motion models, geotechnical and material test results, and borehole evaluations. Uses knowledge of engineering geology, field exploration techniques and laboratory evaluations to determine if investigations by others adequately characterize and document the site conditions, describe the geologic and seismic hazards, and evaluate foundation constraints for project-related engineered structures. Applies professional judgment regarding significance of site conditions. Determines the applicability of recommended mitigation techniques to the site conditions described in consultant reports. Corresponds with State permitting agencies (Division of State Architect, Office of Statewide Health Planning and Development), and with consultants as needed, to communicate the results of reviews and adequacy of reports.
- **10% Outreach and Event Response**  
Participates in outreach efforts to local government agencies, news media, professional organizations, and the general public. Assists public safety agencies by inspecting and assessing life-safety, utility, transportation, and private property damage in areas affected by earthquakes, severe storm events and post-fire debris flows and flooding. Identifies and maps fault rupture and ground-failure features following large earthquakes, and landslides and debris flows following large storm events. Conduct field review studies at school, hospital, and other essential facilities sites.
- **MARGINAL FUNCTIONS**
  - **5% Technical Review, Communication, and Publications**  
Provides technical presentations of work products at scientific and engineering professional meetings, contributes written technical articles to peer-reviewed journals, and provides technical peer-review of work products for co-workers.
  - **5% Administrative**  
Performs administrative duties including, but not limited to: adheres to Department policies, rules and procedures; submits administrative requests including leave, overtime (if applicable), travel, and training in a timely and appropriate manner; accurately reports time in the Daily Log system; and submits timesheets by the due date.

B. **SUPERVISION RECEIVED**

Reports directly to and receives the majority of assignments from the Senior Engineering Geologist (Supervisor); however, direction and assignments may also come from the Supervising Engineering Geologist (Program Manager) within the Regional Geologic and Landslides Mapping Program.

C. **SUPERVISION EXERCISED**

NONE

D. **ADMINISTRATIVE RESPONSIBILITIES FOR SUPERVISORS AND MANAGERS**

NONE

E. **PERSONAL CONTACTS**

The Engineering Geologist routinely interacts with other CGS and DOC staff, federal, state and local agencies, and may include extensive public and professional contact. Contacts may be made via personal interaction, written correspondence, telephone, and/or email.

F. **ACTIONS AND CONSEQUENCES**

If these functions are not adequately performed, consequences may include, but are not limited to:

- CGS will not meet its legislative mandates to identify earthquake hazards, potentially exposing the citizens of California to threats to life, health, or property damages.
- CGS will not meet its contractual obligations to assure timely and accurate completion of work under interagency agreements.
- Potential loss of contract funding significantly impacting program budget.
- Negative impacts to CGS’s relationships with our state and federal partners.

G. **WORKING CONDITIONS/PHYSICAL REQUIREMENTS**

- Telework and working in an office environment, sitting at a desk during core office hours using a desktop computer, keyboard, mouse, monitor and printers under artificial lighting for prolonged periods of time.
- Moving about the office and standing or sitting during in person meetings.
- Bending and stooping to retrieve and replace files and records.
- Use of multi-line telephone console or a cordless telephone.
- Reaching (above and below shoulder level).
- Work in a high-rise building.
- Strenuous field work in mountainous, forested and desert terrains during all weather conditions; in road cuts, mines or other excavations; around drilling and excavation equipment; in trench excavations or large diameter borings; on foot, in off road vehicles, in all-terrain vehicles, or in fixed-wing or rotary wing aircraft.
- Carry samples weighing up to 50 pounds.
- Capable of working long field days and driving significant distances to and from remote field sites; capable of driving 4x4 vehicles and all-terrain vehicles off road.
- Post-earthquake or landslide field response may expose employee to additional hazards created by event ground failures or shaking.
- Post-fire field response may expose employee to additional hazards created by post-fire conditions such as inhalation of ash, uneven or unstable ground, tree fall, or isolated hot spots.

I have read and understand the duties listed above and I can perform these duties with or without reasonable accommodation (if you believe reasonable accommodation is necessary, discuss your concerns with your supervisor).

Employee Signature	Employee Printed Name	Date

I have discussed the duties of this position with and have provided a copy of this duty statement to the employee named above.

<b>Supervisor Signature</b>	<b>Supervisor Printed Name</b>	<b>Date</b>