

SNOHOMISH COUNTY JOB DESCRIPTION

GEOLOGIST I

Spec No. 3415

BASIC FUNCTION

To perform entry-level professional geological, geotechnical, environmental, and materials engineering assignments in design and construction which require the application of basic geologic and engineering principles. Assists engineers or geologists, or manages smaller projects or project components.

STATEMENT OF ESSENTIAL JOB DUTIES

1. Conducts, reviews or directs the preparation of geotechnical and geological studies and prepares technical reports for various types of Public Works projects.
2. Performs environmental studies to determine potential impacts of toxic and hazardous materials on county property or property being considered for purchase by the county.
3. Acts as a technical consultant for all departments within Snohomish County in dealing with geological, geotechnical, and soil and groundwater contamination issues.
4. Participates in field explorations including drilling, backhoe, and hand auger operations.
5. Contacts utility locators, obtains authorization for entry on private property where appropriate from Right-of-Way agents, sets up and schedules personnel for field investigations; researches county files, publications, reference manuals, aerial photos, and other resources for background data on project site or surrounding area.
6. Initiates laboratory testing programs; correlates and reduces data from all sources; performs calculations for the determination of engineering characteristics of materials and their impacts upon structures; performs calculations for slope stability, bearing capacity, permeability, pavement design and retaining wall design; develops recommendations for project design and construction based upon the reduced data and calculations.
7. Provides project management of public works maintenance or construction projects, including preparing, overseeing, or reviewing specifications, cost and quantity estimates, design of drainage and road improvements, and the oversight of the construction process.
8. Performs site inspections of construction work to verify quality of installations and coordinate timely and quality completion for acceptance; monitors contractor progress and schedules quality assurance tests and materials approvals.
9. Assists with the preparation of contract specifications for geological, geotechnical, and environmental work.

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STATEMENT OF ESSENTIAL JOB DUTIES (Continued)

10. Assists with the preliminary review of construction plans to determine if contract documents are complete and in agreement with previously prepared recommendations and calculations.
11. Acts as a coordinator between the county and Washington State Department of Ecology (WSDOE) on Environmental Site Assessment issues.
12. Analyzes new construction and design technologies to recommend improved methods and practices.

STATEMENT OF OTHER JOB DUTIES

13. Performs related duties as required.

MINIMUM QUALIFICATIONS

Graduation from an accredited college or university with a Bachelor's degree in geology, engineering geology, hydrogeology or related geoscience field that meets the education requirements for licensure as a geologist as is defined in WAC 308-15-040.

SPECIAL REQUIREMENTS

Certification of Completion of a 40-hour OSHA 29 CFR 1910.120 certified health and safety program may be required.

A valid Washington State Driver's License is required for employment.

KNOWLEDGE AND ABILITIES

Knowledge of:

- principles, practices and techniques of geology relating to geotechnical and environmental engineering
- federal, state and local laws, rules and regulations relating to geotechnical and environmental engineering
- methods and techniques used in conducting geotechnical studies and site assessments
- principles and practices of report writing, contract negotiation and contract administration
- literature, trends and developments in the areas of geotechnical and environmental engineering
- operations of geotechnical, environmental, and material testing equipment
- engineering plans, specifications and drafting procedures
- word processing, spreadsheets, databases, and GIS related technology
- characteristics and properties of soils found in the Snohomish County area

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KNOWLEDGE AND ABILITIES (Continued)

Ability to:

- interpret and assess field data used for the design, construction and maintenance of road and bridge projects
- prepare engineering plans, specifications and estimates
- direct and evaluate the inspection and appraisal of the condition of soil and civil structures
- allocate and make effective use of available resources
- assess the relative advantages and disadvantages of alternative course of action
- gather, analyze, and evaluate a variety of data including statistical data
- read, interpret and apply federal, state and local laws, rules and regulations governing environmental and geotechnical practices in Washington State
- analyze and evaluate operations and take effective action to correct deficiencies and resolve problems
- establish and maintain effective working relationships with elected officials, department heads, associates, subordinates, representatives of other agencies and with the general public
- communicate effectively, both orally and in writing
- prepare a variety of correspondence, reports, and other written materials and documents
- plan, schedule and coordinate work assignments
- use personal computer applications effectively
- use and care for instruments and equipment employed in environmental and geotechnical practices

PHYSICAL REQUIREMENT

Field work requires walking in difficult and uneven terrain. Must be able to lift up to 50 pound.

SUPERVISION

Assignments are generally broad in scope with opportunity for the use of experience, initiative, considerable independent judgment and discretion in developing and achieving work unit goals and objectives. Assistance from professional supervisors is available when especially difficult problems are encountered. Work is periodically evaluated by a professional supervisor.

WORKING CONDITIONS

Work is performed in the usual office environment with frequent trips to work sites throughout the county. Exposures to physical hazards may occur from difficult or steep terrain, traffic, construction equipment, drilling operations, or contaminated soil and ground water.

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Snohomish County is an Equal Employment Opportunity (EEO) employer.
Accommodations for individuals with disabilities are provided upon request.

[EEO policy and ADA notice](#)

Class Established: January 2018
EEO Category: 2 - Professionals
Pay Grade: 240 - Classified Pay Plan
Workers Comp: 1501 Hazardous