Oregon State Board of Geologist Examiners
Online Consumer Guide, 3/2019 Edition

Purpose of this Consumer Guide

This online Consumer Guide is intended to provide a high-level overview of the regulated (i.e., registered a.k.a. licensed) practice of geology in the State of Oregon for those who may use geologic services. This guide is not exhaustive and presents generalized information. Additional information can be found in the Oregon Revised Statutes (ORS) 672.505 through 672.991, the Oregon Administrative Rules (OAR) 809-001-0000 through 809-060-0003, and the Oregon State Board of Geologist Examiners (OSBGE) "Professional Practices Guidance" Document. In addition, OSBGE has published a number of other documents and newsletters that discuss the public practice of geology in Oregon. These documents are found on the OSBGE webpage.

Geologists

Individuals may say they are geologists, however, persons wishing to engage in the public practice of geology in the State of Oregon must be registered (i.e. licensed) by the Oregon State Board of Geologist Examiners (OSBGE). This online resource guide explains how Oregon designates geologists who are registered to practice geology in the state.

The practice of geology is very diverse and can be subdivided into numerous disciplines, with each discipline having further sub-disciplines of its own. However, when considering the realm of public practice, geology can be more broadly divided into specialties. Examples include environmental geology, hydrology and hydrogeology, engineering geology, geophysics, paleontology, and economic geology.

Geologists-in-Training

Geologist-in-Training (GIT): GITs are individuals who have completed the minimum education requirements and passed the first part (Fundamentals of Geology) of the national geology exam where upon they can apply to OSBGE for this registration. GIT registration is voluntary, not mandatory. GITs are certified by OSBGE as advancing towards full registration but cannot independently sign or stamp a geologist report or take responsibility for geologic work. A GIT may apply to take the second part (Practice of Geology) of the national geology exam after gaining 7 years of qualifying experience from education and work experience. Upon passing this second part of the national geology exam, a GIT may apply for registration as a Registered Geologist (RG).

Registered Geologists

Registered Geologist (RG): RGs are qualified for registration based on:

- completing a college degree in geology or a related field involving a minimum of 45 quarter hours of geology coursework or otherwise presenting evidence of completion of the stated amount of coursework;

- completing three to five three years geologic work experience performed under the supervision of a Registered Geologist, depending on the number of years of accepted qualifying college education;
- passing both parts (Fundamentals of Geology and Practice of Geology) of a rigorous national geology examination; and
- maintaining registration with OSBGE through annual renewals.

Individuals that have earned the RG can advertise they are "Registered Geologists". RGs stamp, sign, and date their reports indicating their registration is up to date. The presence of an official RG stamp and signature on reports and other work products indicates the RG stands behind the data and its interpretation.

Certified Engineering Geologists

Certified Engineering Geologist (CEG): CEGs are RGs who qualified for and hold a specialty registration. Currently, Oregon has only this one licensed geologic specialty.

Engineering geology is a science devoted to the investigation, study, and solution of engineering and environmental problems. It is also devoted to the evaluation and remediation of geological hazards. As defined by ORS 572.505, an 'Engineering Geologist' is a person who applies geologic data, principles, and interpretation to naturally occurring materials so that geologic factors affecting planning, design, construction, and maintenance of civil engineering works are properly recognized and utilized.

CEGs are qualified for specialty registration based on:

- first qualifying for and obtaining registration with OSBGE as an RG;
- completing work experience in engineering geology as follows:
    - Three years of experience under the direct supervision of a registered (licensed) engineering geologist or an engineering geologist otherwise determined by OSBGE to be qualified to supervise, or
    - Five years of experience in responsible charge[1] of engineering geological projects, or
    - Five years of experience from a combination of supervised work and work in responsible charge.
- passing an additional examination in engineering geology; and
- maintaining RG and CEG registrations through annual renewals with OSBGE.

All Oregon CEGs are also RGs; however, most RGs are not also CEGs. Work by an OSBGE registrant that falls under the definition of engineering geology (i.e., where the purpose is related to civil works) must be completed or supervised and stamped by a CEG. In general, if the

[1] *Contact OSBGE or refer to the OSBGE Professional Practices Guidance document available on the OSBGE website for more information about the meaning of "responsible charge" of work.*

geologic work is being completed to provide recommendations for the planning, siting, design, modification, or construction of a structure (including buildings, roads, dams, etc.), this work is engineering geology and must be completed or supervised by a CEG. For example, a CEG is qualified to develop a geologic or geotechnical report required by a local government for a proposed residential dwelling, subdivision, bridge foundation, or landslide repair, but an RG is not. Individuals with the RG are not authorized to practice engineering geology in Oregon unless they are also licensed as CEGs.

Exemptions: Federal Employees, Professors, and Public Testimony

Geologic work must be done by a person appropriately registered (licensed) with OSBGE unless the individual falls under a statutory exemption or other statutory limitation related to registration. For example, geologists employed by federal agencies are exempt from OSBGE registration for work done on behalf of the U.S. government. Likewise, professors in academic institutions are exempt for teaching and academic research, as well as for supervising students acting under their direction. Individuals retained as consultants in geology or engineering geology outside their federal employment or academic work and who are completing work for the public must be registered with OSBGE.

A subordinate to a RG or CEG does not need to be registered (licensed) insofar as the subordinate acts solely in such capacity. This exemption, however, does not permit any such subordinate to independently practice geology for others.

Also, a person does not need to be registered to testify or prepare to testify in a public proceeding such as a land use hearing.

Other licensed professionals, such as Professional Engineers or Architects, do not have specific exemptions from the geology laws. However, ORS 672.545(3) does specify that the geology laws shall not be construed to prevent or to affect the practice of any licensed profession or trade by limiting its appropriate and current custom or practice including the practice of any profession or trade for which a license or registration is required under any other law of this state. Therefore, an individual is not required to hold two different professional licenses to conduct work that falls within an area of professional practice overlap.

What to Expect of a Geologist

What should I expect of a geologist?

Registration. Persons engaging in the public practice or geology in Oregon are required to be registered (licensed) by OSBGE. RGs will usually state their registration in their advertising and will stamp and sign the reports they produce for sites or projects in Oregon. Anyone can check on an individual's registration using the license search feature on the OSBGE website.

Professional memberships. Before hiring an RG or CEG, you may want to inquire about professional memberships and attendance at professional meetings. These are indicators the person is active in the profession and is likely up-to-date in practices. You may also want to

inquire about the continuing education that the geologist has completed. Other licenses or certificates held usually indicate specialized competencies.

Familiarity with the area. You may want to inquire if the geologist is familiar with your local area. Geological conditions vary widely within the state; therefore a geologist's familiarity with the geology of an area is worth considering in your engagement decision.

Has done similar work. You may want to inquire if the geologist has done similar work. A list of completed projects might be helpful.

References. You may wish to ask for references. Some aspects you may want to inquire about from references are adherence to agreed-upon schedules and the quality of their reports, e. g. purpose and scope of the work done, statement of methodology, documentation, adherence to report standards and regulatory requirements, and stated limitations of the report.

Contract. Having a contract is a good business practice and should be considered essential when engaging a geologist. A contract is especially useful if it specifies the terms and scope of work expected along with the time frame. If a retainer is involved, a contract can state its purpose and whether it will be applied to the bill or charged separately.

What to Expect of a Geologist's Work (Geologic Reports)

What should I expect of a geologist's work?

Verbal or written report? Although a verbal report may seem like the less expensive option, in the long run, it may be more costly. Also, many geologists will not provide a verbal report without a written report to accompany it. With a verbal report, if there is any problem with the site or project, there is no written record of the work completed. A written record documents conditions as of a specific date, and thus if in the future there are any changes in conditions, there is a record of previous conditions. Furthermore, a report can be consulted years hence when it may not be possible to contact the individual(s) originally involved in a project.

Report should meet standards

A written report should meet generally recognized standards for a geologic report; in particular, the report should state the purpose and scope of the work done, discuss methodology, present documentation, provide interpretations, make conclusions and may give recommendations. The report would be based on the work completed but may also provide recommendations for additional work. The report should also state limitations of the investigation and the report.

OSBGE has developed several guideline documents to assist geologists in preparing these reports. These include the Geologic Report Guideline, the Guideline for Preparing Engineering Geologic Reports, and the Hydrogeologic Report Guideline. In addition, stamping guidelines are provided for common environmental reports such as environmental site assessments that may or may not include the public practice of geology. These guidelines can be found on the OSBGE website. Not all content presented in these guidelines is necessary for all projects. The scope of work should be discussed with the geologist prior to engagement.

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What do Registered Geologists do?

RGs locate, describe, and evaluate geologic resources and features on the earth's surface as well as those below the surface. RGs advise on the extraction of natural resources, locate, map and interpret data on geological hazards, and advise on remedies.

Some kinds of projects an RG may be involved in are:

- geologic mapping of soils, rocks, and geomorphic features;
- mapping faults; trenching faults; and evaluating seismic hazards;
- mapping and investigating sand, gravel, energy and mineral deposits, assessing their economic value, and evaluating their potential for development;
- characterizing and evaluating sites for petroleum and chemical contamination;
- making recommendations on the management and disposal of contaminated soil;
- evaluating groundwater resources and how new developments of groundwater will impact other human and ecological uses;
- assessing direction and movement of groundwater flow and recharge;
- investigating and analyzing surface water systems (hydrology) and participating in surface water design and restoration projects; and
- determining the location and design of water wells and monitor wells, and evaluating the water quality and capacity of wells.

What do Certified Engineering Geologists do?

CEGs can cover the same areas of expertise as RGs, but in addition, they can conduct investigations to provide geologic and geotechnical analysis, design and recommendations for civil engineering projects. The terms "geotechnics" and "geotechnical" refer to applied scientific work involving soil and rock mechanics, geology, geophysics, hydrology, and related sciences as applied to the solution of civil works. A few examples of geotechnics work are the prediction, prevention, or mitigation of natural hazards such as landslides and rockslides, and the application of soil, rock, and groundwater mechanics to the design of earthen or other man-made structures.

Some kinds of projects a CEG may be involved in are:

- mapping and interpreting geologic hazards for land-use planning purposes;
- assessing coastal hazards and advising on the potential for coastal erosion and accretion,
- determining the engineering characteristics of soils and rocks;
- assessing the stability of cut slopes, excavations, and earthwork, and preparing grading recommendations and plans;
- terrain analysis, and development of approaches to safeguard structures and roads;
- determining appropriate grading to control and manage surface drainage;
- designing subsurface drainage for structures and below ground utilities;
- evaluating the suitability of road alignments and route planning;

- participating in the siting, design, and construction of landfills, bridges, dams, and levees; and
- analysis and design recommendations for building foundations, retaining walls, and waterfront structures.

What do Geologists-in-Training do?

GITs perform geologic work under the supervision of an RG or CEG. The supervising RG or CEG takes responsibility for the work.

Overlap Between Professions

The practice of some other licensed professions involves professional overlap with the practice of geology and engineering geology. The fields of engineering geology and geotechnical engineering, in particular, are similar and share areas of overlap. Professionals in both fields practice geotechnics, and both commonly complete or contribute to geotechnical investigations and reports. However, the public practice of geotechnics by engineers in Oregon is regulated by the Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS), and the public practice of geotechnics by engineering geologists is regulated by the OSBGE.

Geologists can work independently or can choose to work as part of a team consisting of other professionals. All professionals engaged for a project are expected to act within the limits of their licenses, education, and experience. Furthermore, contributions to the reports by these other professionals should identify the geologist's specific contribution in the report.

How to Locate a Geologist to Hire

How can you locate a geologist to hire? Here are a few ideas:

- On OSBGE's website you can use a license search to find RGs and CEGs with active registrations. Data are updated approximately each day. You can select various search criteria.
- Use the internet or telephone yellow pages (both paper and electronic) to find a geologist. It is not unusual for geologists to undertake work many miles from their home base and thus have work experience in many different parts of the state. Using a search engine or the yellow pages from several locales may be useful.

- Inquire of the firm you may be working with if they have an RG (or CEG depending on need) on staff. Many small firms have a list of RGs or CEGs they usually contact when they need geologic work done for a client.

Recommendations. OSBGE **DOES NOT** make recommendations about hiring particular geologists. Nor does OSBGE gather information about other licenses, certificates, or academic work a geologist may have completed. Board staff can only verify that an individual indeed has an active registration and can also check if there is any disciplinary history for the individual.

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Complaints

OSBGE investigates all formal complaints involving allegations of violations of Oregon laws or Oregon Administrative Rules pertaining to the public practice of geology in Oregon. Formal complaints are those submitted in writing and signed by the complainant. OSBGE can also initiate a complaint based on information brought to its attention. OSBGE does not guarantee investigation of anonymous complaints. See the File a Complaint section of the OSBGE website for more information.

For additional information, the geologist Code of Professional Conduct (Oregon Rule 809-020-001) may be of special interest.

Board Action. Upon investigation by OSBGE of a formal complaint, OSBGE may take disciplinary action against a Board registrant as warranted, and such actions can range from a letter of reprimand to revoking registration. OSBGE can also impose civil penalties on registrants or unlicensed individuals for violations of laws and rules for geology practice in Oregon. However, not all investigations result in disciplinary action or civil penalty.

Oregon State Board of Geologists Examiners Role

What does OSBGE do?

The statutory mission of OSBGE is to safeguard the health, safety, and welfare and property of the people of Oregon through regulation of geology practice. To carry out its statutory mission, OSBGE:

- Licenses professionals engaged in the public practice of geology;
- Responds to complaints from the public and profession;
- Educates the public;
- Communicates with regulatory agencies;
- Cooperates with related boards and commissions;
- Promotes professional ethics; and
- Provides systematic outreach to counties, cities, and registrants.

OSBGE works to achieve this mission through: (1) ensuring only individuals fully qualified by education, experience, and examination are granted the privilege by registration to practice geology in Oregon publicly, (2) regular review of relevant laws and rules; (3) impartial enforcement of regulatory laws and rules; and (4) providing and effectively communicating information regarding the Board's goals and activities to registrants and the public.

For further information, see OSBGE's website. Also feel free to contact the OSBGE office.

What does OSBGE NOT do?

OSBGE does not recommend particular RGs or CEGs for work.

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OSBGE does not arbitrate disputes about billing or the appropriateness of fees charged for geologic work unless negligence, incompetence, or fraud by a RG or CEG is indicated.

OSBGE does not register any other professions.

OSBGE's office does not provide information about Oregon geology. Suggestions for finding such information are: contacting the Oregon Department of Geology and Mineral Industries, contacting your local college or university library; checking with your local public library, or consulting the titles on this short list of books about Oregon geology included in this online Consumer Guide.

Geologists from Other States

The State of Oregon does not automatically recognize the licenses given to individuals by other states to practice geology. But by meeting certain conditions, a geologist with an out-of-state registration can apply for a "comity" registration in Oregon. Once granted, the individual would be listed among the Oregon registrants. There is provision to issue a temporary permit for out-of-state geologists to do work in Oregon without an Oregon registration. However, such permits have strict limitations. For further information on either Oregon "comity" registrations or temporary permits, please contact the Board office.

Disclaimer

Disclaimer. This Consumer Guide is offered as a service to consumers. The information here is not to be construed as official OSBGE policy, nor does it supersede Oregon statutes and rules pertaining to the public practice of geology. This Consumer Guide is meant to be an informal summary of some of the policies, procedures, laws, and rules regarding the public practice of geology in Oregon. For further information, please contact the Board office.

Selected Books on Oregon Geology

Miller, Marli, Roadside Geology of Oregon. Missoula, Mountain Press, 2014. 2nd edition.

Bishop, Ellen Morris. Hiking Oregon's Geology. Seattle, Mountaineers, 2004. 2nd edition.

Bishop, Ellen Morris. In Search of Ancient Oregon. Portland, Timber, 2006.

Orr, Elizabeth L. and William N. Orr. Oregon Geology. Corvallis, Oregon State University Press, 2012. 6th edition.

Orr, Elizabeth L. and William N. Orr. Oregon Fossils, Corvallis, Oregon State University Press, 2009. 2nd edition.

NOTE: In addition to these general surveys of Oregon geology, there are books available which cover the geology of specific areas of the state, e.g. the Columbia Gorge, Cascades, etc. Check with your local library for more information.