



# Oregon Geologist Examiner

July 2007

Official Publication of the Oregon State Board of Geologist Examiners

## Board Offices:

1193 Royvonne Ave. SE, # 24  
Salem, Oregon 97302

Phone: (503) 566-2837

Fax: (503) 485-2947

Web: [www.oregon.gov/OSBGE](http://www.oregon.gov/OSBGE)

Email: [osbge.info@state.or.us](mailto:osbge.info@state.or.us)

## Geology Board Members:

Eileen L. Webb, RG, Chair  
Christopher Humphrey, RG,  
CEG

Vicki McConnell, PhD, RG  
State Geologist

Allen Morris, Public Member

Stephen B. Taylor, PhD, RG

Rodney J. Weick, RG, CEG

## Susanna R. Knight

Administrator

## Marilou Arrobang

Licensing Specialist

## Jane F. Feinberg, RG, CEG

Design Editor

## Next Board Meeting:

September 21, 2007

1:00 PM

Salem, Oregon

## Geologists and Measure 37

**B**allot Measure 37 was passed by 61% of the Oregon voters in 2004, upsetting the balance of the 19 Planning Goals that Oregon developed over the past 30 years for land use. Over 7,500 applications for exemptions have been submitted to local and state government agencies for review. According to the Measure 37 database maintained by the Institute for Metropolitan Studies at Portland State University, 72% of the claims are within the Willamette River Basin. Approximately 90% of these claims are under the jurisdiction of counties.

Measure 37 permits landowners to apply for exemptions from these laws after they purchased their land or seek compensation for lost opportunities to develop their lands if the land use rules remain in place. Petitions for compensation many times require the services of land appraisers, resource economists, traffic engineers, and geologists.

The vast majority of Measure 37 claims are located outside of Urban Growth Boundaries (UGBs). The claims, if approved and built as outlined in the application, will result in low-density, large lot houses relying on individual wells rather than by community water systems found within UGBs. Measure 37 claimants tacitly assume that groundwater can be found in sufficient quantity and quality to meet the demand of the "sagebrush subdivisions".

*(continued on pg 3)*

## Geotechnical Reports Completed by Engineering Geologists

**I**n recent years the Oregon State Board of Geologist Examiners (OSBGE) has fielded inquiries from registrants, the public, and local and state agencies regarding whether geotechnical reports should be prepared by Certified Engineering Geologists (CEG), Geotechnical Engineers (GE), or both. Both fields practice in an area known as geotechnics (the application of scientific methods and engineering principles to the acquisition, interpretation, and use of knowledge of materials of the Earth's crust for the solution of engineering problems), and both commonly complete geotechnical reports.

Engineering geologists apply geological sciences to civil engineering works to assure that the geologic factors affecting the location, design, construction, operation and maintenance of the engineered work is recognized and adequately provided for. As a result, CEGs are commonly required to complete

*(continued on pg 4)*

---

## Knight's Notes

It was a very disappointing April morning when the hoped-for pass vote of 3-2 from the Senate Committee for Environment and Natural Resources turned into a fail vote of 2-3 causing the Board's only bill of the 2007 Legislative Session to die in committee. It took much time and energy to get the bill to a committee, so to see it die there was not a happy day. But the Board subsequently determined that the pieces of this bill are too important to let die forever, so the work now begins to prepare for the future. Please contact Board staff for additional information.

There was also a very happy April morning when staff distributed the quarterly newsletter via email on a "dry run." Although no response was anticipated, many of you offered positive feedback, not only supporting the electronic delivery of the newsletter, but also offering unsolicited ideas and support for the newsletter. THANK YOU! Staff did learn that success in delivering the newsletter electronically is ultimately the registrant's responsibility, as **keeping your current and correct email on file in the Board office is now critical!**

A very informative and candid discussion with the Deputy Director of the Oregon Watershed Enhancement Board occurred during the Board's June Work Session. Oregon leads the nation with its Watershed funding program and the Board anticipates that the end product is a safe one. The discussion was just the introductory phase of what the Board hopes will be an ongoing outreach process to those involved in the restoration and development of watersheds.

There has been concern in the past years across America about declining support for the science of geology. Board Member Taylor offered to the Board that high school students know about physics, chemistry, and biology, but very few know about geology. He distributed a document titled Science Teaching and Learning Standards, Oregon Teacher Resources for 2005-07, and asked the Board to read this information about science standards in Oregon. He will lead a discussion at a future Board Work Session.

The annual Board picnic is scheduled for July 21, 2007. If you have served as a Board member or as a volunteer for the Board, you are encouraged to join the upcoming fun. This is a family event, so please

plan to join in. If you have not yet received information about the particulars, contact the Board staff.

Have fun this summer,

Susanna Knight  
OSBGE Administrator



## SB 165 Fails: Board Seeks Registrants' Assistance

Over a period of years prior to the 2007 session of the Legislature, the Board grappled with addressing compliance issues of statute. Based on consultation with its attorney and issues faced in the compliance process over the years, the Board determined that it was time to go to the 2007 Legislature to seek change. The Board was not aware of any opposition to the concepts in SB 165 and was surprised when testimony against the bill by a Registered Geologist was presented at the first hearing of the bill. The Board was also disappointed when two Senators would not discuss their concerns about the bill with the Board. The bill died in the Senate Environment and Natural Resource Committee on April 19, 2007, when Senators Atkinson, Bates and Beyer voted against the bill.

In a follow-up discussion at the Board's June Work Session, the Board concurred that they do wish to move ahead with this bill during an upcoming Legislative Session. But to be successful in passing the bill, the Board needs to reach out to Geology registrants across the state and ask them to talk with their legislators about the need to pass this bill. Registrants are the ones that can influence the citizen legislators in order to precipitate change.

If you are an Oregon resident registered to practice geology here in Oregon, please contact Board staff for additional information. **The Board needs your help.** Email the Board office to offer your services. Information will be provided to you

---

## Measure 37

(continued from pg 1)

County commissioners and county planning commissions often rely on the assessments of geologists to determine if the subdivisions proposed under a Measure 37 claim can be served by groundwater resources underlying the claim. As part of the hydrogeologic review process, Measure 37 claimants, opposing interests, the county planning offices, among others, typically retain geologic experts to conduct the assessments or provide peer reviews. Each “expert” may have a different interpretation of the existing hydrogeologic information associated with the various facets of the Measure 37 claim leading to the classic situation of “dueling experts syndrome.”

The environmental conflict resolution literature describes the attributes of the dueling expert syndrome as the following:

- Experts do not consult with each other;
- Experts tell client what they want to hear;
- Experts refrain from providing “best to worst alternatives;
- Experts develop long, incoherent reports; and
- Experts refuse to share draft reports.

The symbolic and tangible issues revolving around the dueling experts are complex, technical and intertwined. Symbolically, the dueling experts desire to maintain their professional reputations. But their professional reputations are dependent on their mastery of the tangible resources of scientific and technical knowledge. And here is the first source of tension among the dueling experts and Measure 37 – the history of hydrogeologic thought. The technical training of hydrogeologists is based on the intellectual method of “multiple working hypotheses” introduced in the late 1890s by the first hydrogeologist in the United States, Thomas Chamberlain.

The method of multiple working hypotheses focuses on the development of several hypotheses to explain the phenomena under study. Some hypotheses will be contradictory; some hypotheses will be proven false. The antithesis of multiple working hypotheses is reaching an interpretation that is made in haste and based on few data – without additional testing it becomes a “ruling theory”. Yet the conflict industry carefully controls the dissemination of information to experts so that the expert develops an “ego investment” in the conclusion desired by the client, or will

“identify” with the client’s position and stand by a ruling theory.

What can be done about the current differing views of geologic experts? The conflict resolution literature offers the following suggested approaches:

- Joint meetings between disputants and their dueling experts to “try to convince” by each party pointing out the strengths and weaknesses of experts.
- Joint presentation of experts on why differences exist through a mediator.
- Experts answer list of written questions.
- Experts prepare jointly signed explanation.
- Outside advisory expert(s) attend mediation or negotiation.
- Outside expert(s) writes a nonbinding opinion.
- Outside expert(s) writes a binding decision.
- Mediator creates doubt by introducing new or hypothetical facts (“what ifs...”)
- Split the difference.
- Trade chips.
- Toss a coin.
- Refer decision to a Judge.

The environmental conflict resolution literature suggests that it is wise to seek out advisors such as a scientist or engineer with process skills and technical expertise to assist with complex environmental disputes. In the case of the dueling geologic experts and Measure 37 claims, existing neutral boards already exist such as the Oregon State Board of Geologists Examiners or technical experts could be derived from the Oregon Universities System.

Land use decisions focusing on Measure 37 claims has created a new conflict industry for dueling experts. Leadership and collaborative efforts by geologists to expand technical and public learning may lessen the impact of the dueling expert syndrome on the public decision-making process.

\* Todd Jarvis is a Senior Researcher in Water Resources at the Institute for Water and Watersheds at Oregon State University. He can be reached at 541-737-4032 or at [todd.jarvis@oregonstate.edu](mailto:todd.jarvis@oregonstate.edu)

---

## Geotechnical Reports

*(continued from pg 1)*

geotechnical investigation, analysis, and design. Geotechnical engineers are professional engineers (PEs) regulated by the Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS). By training and experience, they are also qualified to practice geotechnics. Consequently, the fields of engineering geology and geotechnical engineering have large areas of overlap.

To qualify for certification as a CEG in the State of Oregon, a registered geologist (RG) must have specialized experience, knowledge and mentorship in a wide variety of geoscience subdisciplines. These include: geologic hazards evaluation, soil and rock mechanics, geotechnics, foundation analysis and design, earthquake engineering, and hydrogeology. A qualified CEG candidate is tested on this knowledge before acquiring certification as an engineering geologist (CEG). This specialty certification in engineering geology allows CEGs to practice as registered design professionals in Oregon's geotechnical industry. Therefore, it is the Boards position that CEGs can complete geotechnical investigation, analysis and design as part of their engineering geology practice, and complete geotechnical reports. As in other design professions, geologists and engineering geologists are bound to limit their practice to areas in which they have had the necessary education, training and experience. To practice outside of ones expertise is violation of the Board's Code of Conduct.

Practice issues sometimes arise in the overlap area between geology and engineering, including geotechnical engineering and engineering geology. To resolve these overlap practice issues, a Memorandum of Understanding (MOU) was developed jointly by OSBGE and OSBEELS, and a Joint Compliance Committee (JCC) was established in December of 2001. Complaints could involve allegations that a professional practiced outside their expertise. Another common theme is poor practice in either area. The MOU defines a process to evaluate and act on a complaint or allegation. Typically, the registrant's Board, either OSBGE or OSBEELS, is designated as the lead board with respect to compliance actions. But both Boards provide input to the process, allowing for a thorough evaluation designed to assure fairness in difficult overlap issues. The JCC benefits both

boards by providing a resource where the issues of practice and public safety are jointly evaluated, and precedence on overlap practice issues can be established.

Should you have a question, concern, or complaint regarding practice in geotechnics or other overlap practice areas (such as hydrogeology), these should be submitted to OSBGE or OSBEELS. The JCC will convene to evaluate issues in the overlap arena, the goal of which is to maximize professionalism and safety to the citizens of Oregon.



### **VOLUNTEER HELP NEEDED NOW!**

**IMMEDIATELY**, registrants are needed to help with the development of GEOLOGY REPORT GUIDELINES.

If you are willing to accept a small piece of this assignment, please email the Board office at [osbge.info@state.or.us](mailto:osbge.info@state.or.us).

---

## Newsletter to Go Electronic

Staff has been attempting to implement the Board's request that the newsletter be issued by email. In a "Test, Only a Test" run on April 11, staff heard back from many of you either confirming receipt, offering suggestions for the distribution process, or commenting about the newsletter. **Thank you** to all of you that took a moment to provide input. A few of you prefer the paper copy, but a huge majority supports the email delivery method. Many helpful suggestions were offered regarding the implementation process for email delivery of the newsletter.

Two hurdles must be crossed to successfully deliver newsletters by email. The first is to correct all emails that were undeliverable on the trial attempt. Staff has been diligently working on this, but you can help us by *always* providing a current email should your email address change. A correct email address is as important as a correct US Mail address. If your newsletter is successfully delivered to an email address for which you no longer have access, it is doubtful that your newsletter would be "forwarded". And staff may not learn of the unsuccessful delivery of your emailed newsletter for purposes of acquiring a corrected email.

The second hurdle is to gather an email from the almost 200 registrants that currently have no email in our system. We do not anticipate that we will bat a thousand in email address acquisition, but the more deliveries that occur via email, the lesser cost to distribute the newsletter.

The annual renewal form is your opportunity to view your exact database information. By carefully reviewing and updating your information, the database information can be kept current, *including your current email address*. Your assistance is greatly appreciated.

## Welcome New Registrants!

Since the last newsletter, the following individuals have been added to the roster of registrants of the Oregon State Board of Geologist Examiners. The Board welcomes all of you and wishes you the best as you practice in Oregon.

### Geologists in Training:

Sean **Dixon**, T2159  
Heather **Easterly**, T2160  
Jennifer **Fuller**, T2161  
Robin **Johnston**, T2163  
Erin **Minster**, T2164  
Matthew **Steinkamp**, T2165.

### Registered Geologists:

Eric **Aronson**, G2158  
Brett **Barsdley**, G2167  
Benjamin **Black**, G2168  
Christopher **Conrad**, G2157  
Jed **Douglas**, G2166  
Merideth **Gibson**, G1979  
Gerald **Grondin**, G2162  
Christopher **Martin**, G2169



### **VOLUNTEERS NEEDED**

from across the state  
to serve on **Legislative Committee**.  
Contact the Board office for details!



## INVITATION TO BOARD VOLUNTEERS...

Please join with current and former Board Members in a Potluck Picnic on Saturday, July 21, 2007. Details of the picnic are available from the Board staff. The Board hopes to see you there to meet and thank you for your participation in the Board's work!

---

## Oregon State Board of Geologist Examiners

1193 Royvonne Avenue SE, #24  
Salem, OR 97302



### Lapsed Registrations

The following registrants have failed to renew their registration in recent months and currently have an expired registration. **An active registration is required to practice geology in Oregon.** The annual fee and restoration fee must be presented to the Board to activate the registration. If your renewal payment was processed, but your name appears below, please contact the Board office so the error can be identified and a correction made to our registrant database.

**Becraft**, Daniel G1974; **Bessinger**, Brad G2117; **Bogar**, Robert G1960; **Clark**, Julie T1716; **Crowther**, Derrick G1572; **Freeman**, Jeffrey G1645; **Gall**, Ivan G1927; **Haug**, Brian G1887; **Kirk**, Stephen G1871; **Kraus**, Jerome G1486; **Lambert**, Wayne G1647; **Luzier**, James G0909; **Olsborg**, Erik E0912; **Perkins**, Susan G1335; **Reese**, Adam T2123; **Ripley**, Anneliese G1258; **Roso**, Catherine G1799; **Scofield**, David E0830; **Siembieda**, Michael G1188; **Spillers**, Paul G1750; **Turner**, Katherine T1969; **Wahl**, Allan G1454; **Yandell**, Lon G1655.

### 2007 Calendar of Upcoming Events

- July 21: Annual Board Picnic  
William Orr Farm
- July 30: Deadline to Withdraw for September  
ASBOG Exam
- Sept. 21: Quarterly Board Meeting  
Salem, Oregon
- Sept. 28: ASBOG National Exams
- Oct. 24, 25: ASBOG COE  
Denver, Colorado
- Oct. 27: ASBOG National Meeting  
Denver, Colorado
- Dec. 7: Quarterly Board Meeting  
Portland, Oregon