Our Fall 2015 Bulletin is Here!

We hope you enjoy our fall 2015 Bulletin. Our theme for this issue is “School’s in Session.” Every August through September, students are beginning a new school year, arriving in classrooms with new goals and aspirations. The articles found in this newsletter focus on this theme and offer a myriad of perspectives.

Take a look inside! If you have any comments about the newsletter or suggestions for article topics, please contact our Outreach Coordinator, Brooke Phayer, at Brooke.Phayer@dca.ca.gov.

Message From the Executive Officer

RICHARD B. MOORE, PLS

Recently, representatives from the Board for Professional Engineers, Land Surveyors, and Geologists (Board) attended the 94th annual National Council of Examiners for Engineering and Surveying (NCEES) meeting, joining other Board members and Member Board Administrators from 70 engineering and surveying licensing jurisdictions to discuss policies and standards associated with examination and licensure of those disciplines. Headlined by its long-tenured land surveyor Board member, Patrick Tami, PLS, who is currently serving on the NCEES Board of Directors as the Western Zone Vice President (representing the 13 Western states, Guam, and Northern Mariana Islands), the Board was additionally represented by several other current Board members, which clearly exhibited the Board’s experience and diversity.

Each year, the NCEES Board of Directors, along with executive staff, charge various committees and task forces with researching issues associated with NCEES’ mission to provide appropriate examinations to candidates for the purpose of regulatory licensing. In addition, NCEES publishes suggested model laws and regulations to assist licensing jurisdictions in standardizing licensing requirements. Typically, that research results in recommendations to implement or revise current examination policies and procedures.
that may have little impact on current licensing in individual jurisdictions or have great far-reaching impact across the country. At the annual meeting, representatives from each of the member boards consider these recommendations and vote (as a Board) to accept or reject the recommendations.

For example, during this year’s meeting, the primary topics being discussed and voted on were:

• Should structural engineers have a protected title? Should structural engineering be recognized as a separate discipline of practice rather than a specialized form of civil engineering within the model laws?
• Continuing studies and research associated with current educational requirements for engineering degree programs and whether those requirements should be increased to accommodate changes in the practice.
• Changing the administration of the national Principles and Practice of Surveying examination from the current paper-based delivery model to a computer-based delivery model beginning October 2016.

In various forms of acceptance or rejection, decisions made at the annual meeting by NCEES member boards have the potential to impact how California candidates become licensed either directly by identifying conflicts with current laws or indirectly by impacting how California licensees seek comity licensure in other jurisdictions. Therefore, it is vital that the Board is present at these meetings to ensure that California interests are fully considered. It is appreciated that the Department of Consumer Affairs; Business, Consumer Services, and Housing Agency; and the Governor’s Office recognize this important aspect and join the Board in continuing to protect the interests of California.

Board News

Congratulations!

Effective July 1, 2015, Robert Stockton, P.E., who was the Board’s past Vice President, was nominated and elected as President for Fiscal Year 2015–2016. In addition, Coby King, Esq., was nominated and elected as Vice President.

Mr. Stockton, the Civil Engineer member of the Board, has worked in multiple positions at Rick Engineering Company since 1981, including principal, associate principal, and associate and project engineer. Mr. King is the President and Chief Executive Officer of High Point Strategies, LLC, one of Southern California’s leading public affairs firms. He earned a Juris Doctorate degree from Georgetown University Law Center.

Farewell!

Kathy Jones Irish was the Board President for 2014–2015 and has passed the torch to Mr. Stockton. We greatly appreciate the expertise and perspective she brought to the Board. She will remain on the Board as a public member going forward, and her term expires June 30, 2018. Mrs. Jones Irish has been Vice President at Arnie Berghoff and Associates since 2011.

Gary Duke, Esq., started out with the Department of Consumer Affairs (DCA) as a legal intern from McGeorge School of Law, University of the Pacific, in the summer of 1987
and worked with the DCA’s Legal Services Unit and the Dispute Resolution Council in developing their regulations. Subsequently, he worked with the Bureau of Collections and Investigative Services (now Bureau of Security and Investigative Services) to review the Bureau’s laws and recommend amendments for modernization. He graduated from the McGeorge School of Law in 1990 and was admitted to the California State Bar in 1991. He was assigned to represent the Board in January 1993.

Mr. Duke has been re-assigned to provide legal counsel to the California State Athletic Commission, Bureau of Automotive Repair, and DCA’s subpoena unit.

**Board TACs Joint Meeting**

The joint Civil and Structural Technical Advisory Committees (TACs) discussed proposed changes to the Professional Engineers Act (Business and Professions Code) as submitted by the Structural Engineers Association of California (SEAOC).
Do You Qualify? Defining Public Versus Professional Board Members

Coby King, Esq.

When I was first appointed to the Board, I quickly learned that I was one of eight public members on the 15-member Board. “Public” simply means that the member is not a member of the professions regulated by the Board. The Governor appoints six of the public members, with the remaining two appointed by legislative leaders. The remaining members are professional members—five of them engineers, with one land surveyor and one geologist or geophysicist. The law also provides that the engineers appointed come from different engineering disciplines.

I soon observed that the makeup of the Board reflects the two primary purposes of the Board. First and foremost is the protection of the public. Primarily, this means ensuring that those who perform the services regulated by the Board are qualified, ethical, competent, and professional. The Board is the place where people who feel they have been wronged by a member of the regulated professions can go for recourse.

The other primary purpose of the Board is to promote the professions themselves and to make sure that students interested in becoming a California engineer, land surveyor, or geologist are aware of the requirements of California law, how to get licensed, and what the legal and professional responsibilities are that come with a license.

One might think that the “public” members of the Board and the “professional” members of the Board might see their responsibilities slightly differently—that the public members would be more interested in protection of the public and the professional members in the promotion of the professions. But in my time on the Board that has not been the case at all. Every member of the Board that I have worked with has always put protection of the public first. In fact, sometimes it seems that it is the professional members who are least tolerant of incompetence or unprofessional behavior among their colleagues.

At the same time, every member of the Board recognizes the important role it plays in promoting the profession. The advancement of California in part depends on the availability of professionals to responsibly develop land, build structures, and ensure that such development is safe given the structure of the underlying earth.

I’ve been pleased to see that while the Board’s public and professional members bring different experiences and perspectives to the role of the Board, the diligence devoted to protecting the public and advancing our State is something that unites us all.

Interview of a Professional Board Member and Public Board Member: Board President Stockton and Vice President King

Staff interviewed a professional member and a public member to offer two perspectives on the Board and its future. Coincidentally, both participants have recently been elected President and Vice President for Fiscal Year 2015–2016: Robert Stockton, P.E., as our President, and Coby King, Esq., as our Vice President.

What put you on your career path?

When I was growing up, I really enjoyed building things like tree houses and other fun stuff. In high school, I realized that I had an aptitude for drafting and designing, so I initially thought of becoming an architect. When studying college curriculums, I quickly determined

When I was a child, my father collected and saved newspaper articles about important events. I used to spend hours carefully reading those yellowing clippings and being fascinated with important world and national events. This sparked an interest in politics, and I eventually
Interview of a Professional Board Member and Public Board Member (continued from page 4)

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<thead>
<tr>
<th>What brought you to our Board?</th>
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<td>I have been involved with advocacy efforts for our community and region for several years. When I learned of an opening on the Board for a civil engineering licensee, I felt that if selected, my background of being on other boards and commissions, along with a passion for our profession, would be a good match.</td>
<td>Because of my interest in politics and political issues, I’ve been active in Democratic politics. I also have a love of the outdoors, and among my hobbies is something called county highpointing, which involves reaching the actual highest point in a particular county. A colleague of mine with friends in the Governor's office thought that I would be a great fit for the Board that oversees land surveyors and encouraged me to apply to the Board. I did, and the rest is history!</td>
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<th>What is the most common misconception the public and current licensees hold about the Board and its work?</th>
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<td>I think the most common misconception the public has about the Board is that the Board’s primary responsibility is to the licensees, rather than protection of the public. I don’t think they realize that there are more members of the public than licensees on the Board to provide for a proper blend of checks and balances. Licensees also have these same misconceptions.</td>
<td>I agree with the opinion of the Board President.</td>
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<th>What is the biggest challenge that the Board will face in the future?</th>
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<td>I see two challenges: the first being the increased level of specialization of areas of expertise brought about by the growth of technology. I think that there is the potential for increased risk to the public as engineers, surveyors, and geologists practice outside of their narrow window of competency. The Board’s challenge will be to stay current along with identifying trends needing to be addressed. The second challenge that the Board faces in the future is an increasing gap between California’s rules and regulations related to the acts and the rest of the country; i.e., National Council of Examiners for Engineering and Surveying and the Model Laws and Rules.</td>
<td>I think the biggest challenge for the Board on a continuing basis is simply people knowing that it exists, especially among members of the general public. More specifically, a challenge for the Board will be staying ahead of the technology curve. People now expect to have access to information at their fingertips, and technology for state agencies has not kept up.</td>
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(continued on page 9)
Enforcement Unit Recruiting Technical Expert Consultants

The Board’s Enforcement Unit is recruiting professional engineers, professional land surveyors, professional geologists, and professional geophysicists to serve as technical expert consultants for complaint investigation matters. The Enforcement Unit maintains a pool of technical expert consultants in all disciplines of licensure. Currently, the Enforcement Unit especially needs more technical expert consultants who are licensed as electrical engineers, mechanical engineers, professional geologists (including certified engineering geologists and certified hydrogeologists), and professional geophysicists. However, civil engineers (including geotechnical engineers and structural engineers) and land surveyors are encouraged to submit their resumes as well.

Duties: Technical expert consultants review enforcement complaint investigation cases for compliance with the laws and regulations and the standards of care and practice. Upon completion of a review, a written report of the opinion must be submitted to the Enforcement Unit. Experts may also be asked to testify at administrative hearings regarding their opinions.

Qualifications: Technical expert consultants must be California residents and have been licensed in California for a minimum of five years. Additionally, they cannot have been the subject of any complaints or enforcement actions.

Reimbursement: Technical expert consultants are paid an hourly rate for case review, report preparation, and actual time spent testifying at administrative hearings. Travel costs associated with testifying are reimbursed.

If you are interested in assisting the Board’s Enforcement Unit as a technical expert consultant, please submit your current résumé/curriculum vitae along with the appropriate Areas of Expertise form (see links below) to the following address:

Board for Professional Engineers, Land Surveyors, and Geologists
Attention: Enforcement Unit
2535 Capitol Oaks Drive, Suite 300
Sacramento, CA 95833

Areas of Expertise Forms
Land Surveyors and Civil Engineers (including Geotechnical Engineers and Structural Engineers):
www.bpelsg.ca.gov/pubs/forms/experts_aoe_ce_ls.pdf

Electrical Engineers and Mechanical Engineers:
www.bpelsg.ca.gov/pubs/forms/experts_aoe_me_ee.pdf

Professional Geologists (including Certified Engineering Geologists and Certified Hydrogeologists) and Professional Geophysicists:
www.bpelsg.ca.gov/pubs/forms/experts_aoe_pg_pgp.pdf

If you would like more information about being a technical expert consultant, you may call the Enforcement Unit at (866) 780-5370 or e-mail at BPELS.Enforcement_Information@dca.ca.gov.

Updated 7/9/2014
Digging Deeper: Understanding Our EIT and LSIT Certificate Holders

Staff has taken a closer look at our applicants taking steps toward licensure. Qualifying and receiving your Engineer-in-Training (EIT) or Land Surveyor-in-Training (LSIT) certificate is the first step. The certificates identify to your peers, employers, and fellow professionals that you are competent and knowledgeable in your field of study. The following charts and tables identify certificates issued, location of our applicants, age ranges, and qualifications met to achieve a certificate. We have just started tracking this data and will continue to update it annually to identify trends.

The two charts below indicate the successful path toward an EIT or LSIT certificate. The information is displayed annually and shows the number of examinees who take the Fundamentals of Engineering (FE) exam or the Fundamentals of Surveying (FS) exam and indicate California as their jurisdiction. After an individual successfully passes the exam, they apply to the Board, and, if qualified, receive their certificate.

<table>
<thead>
<tr>
<th>EIT Applicant Locations</th>
<th>LSIT Applicant Locations</th>
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<tbody>
<tr>
<td>1. CA</td>
<td>1. CA</td>
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<tr>
<td>162</td>
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<td>2. OR</td>
<td>2. OR</td>
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<td>14</td>
<td>14</td>
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<td>3. WA</td>
<td>3. WA</td>
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<td>5</td>
<td>5</td>
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<tr>
<td>4. AZ</td>
<td>4. AZ</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>5. OK</td>
<td>5. OK</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>6. GA, HI, MI, NJ</td>
<td>6. GA, HI, MI, NJ</td>
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<tr>
<td>1 (each)</td>
<td>1 (each)</td>
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The data on the right identifies the location, by state, of applicants who applied and received a certificate from the Board.
The charts below identify the age range of our EIT and LSIT certificate recipients issued over the last two and half years. Congratulations to each and every one of you on reaching this milestone in your professional career path.

The tables below identify applicants’ qualifications to achieve their certificates. Education is a predominate qualification for EIT certificate holders. LSITs tend to split the difference between education and work experience. Data has been captured over one month. We are continuing to track this data for future newsletters.
Interview of a Professional Board Member and Public Board Member (continued from page 5)

**What is the biggest challenge that our licensees will face in the future?**

One of the biggest challenges our licensees will face in the future will be the ability to obtain licensure in other states, due to the increasing gap discussed above. Another challenge will be for licensees keeping up with technology to avoid practicing outside of their areas of expertise.

As knowledge expands, licensees will have to face the challenge of staying current with best practices in the industry. Much of this happens organically, through the natural competition between licensees, but the Board will have to consider whether continuing education might eventually be required to ensure that the public is properly protected.

**What surprised you most about the Board and its work?**

I’ve been very impressed with the quality of the Board members—the selection process works. Also most impressed with the excellence and professionalism of the staff.

I’ve been less surprised than pleased at the collegiality of the Board and the professionalism of the staff. The most interesting debates at Board meetings tend to be relatively high-level policy discussions about the best way to both promote the industry and protect the public.

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**The Value of EIT and LSIT Certifications**

The Fundamentals of Engineering (FE) exam, leading to the Engineer-In-Training (EIT) certificate, and the Fundamentals of Land Surveying (FS) exam, leading to the Land Surveyor-In-Training (LSIT) certificate, are the proper foundations for an aspiring Professional Engineer (P.E.) and Professional Land Surveyor (PLS).

If you wish to have a successful career as an engineer or land surveyor, you need a way to stand out in the ever-evolving and rapidly growing professional world—obtaining a P.E. or PLS license is a smart, cost-effective way for doing just that.

Taking the FE or FS exams are important steps to distinguishing yourself from the crowd. The exams, which are computer-based exams administered at testing centers throughout the country, are sometimes erroneously referred to as the EIT or LSIT exams. EIT or LSIT is actually the title you are allowed to use after you have passed the FE or FS exam and received certification by the Board. Receiving an EIT or LSIT certificate is a significant move toward professional licensure.

EIT and LSIT are the certifications used in California and many other states to designate a person certified by the state as having:

- Passed the National Council of Examiners for Engineering and Surveying FE or FS exam
- Met additional California requirements

The Board then awards an EIT or LSIT certificate.

For more information about EIT and LSIT certifications, visit the Board’s website at [www.bpelsg.ca.gov](http://www.bpelsg.ca.gov).
California Licensing Candidates: How Ready for Licensure are They?

Recently during one of the Board’s meetings, a licensed member of the public mentioned involvement in exam courses designed to assist with preparations toward successfully passing the required licensing exams. The licensee then inquired as to how the overall candidate population performed on the most recent spring 2015 California examinations. Although it was clearly understood that each candidate received a notice indicating success or failure and that each failing candidate received a diagnostic report indicating where improvements need to be made, the licensee’s question had more to do with an overall understanding on how well the currently licensed industry is helping to prepare potential candidates for the responsibility of becoming licensed.

As a result of this inquiry, Board staff requested a diagnostic report for each of the California exams that were administered during the most recent examination cycle, reflecting the performance for each published test plan category of the overall failing population. The four exams analyzed were Civil–Engineering Surveying, Civil–Seismic Principles, Geologist–California Specific, and Professional Land Surveyor.

The Board maintains the following information online:

- Past examination statistics: www.bpelsg.ca.gov/applicants/exam_statistics.shtml
- Published test plans for each examination: www.bpelsg.ca.gov/applicants/refs.shtml
- Sample exam questions: www.bpelsg.ca.gov/applicants/sample_questions.shtml
- Explanation of diagnostic report: www.bpelsg.ca.gov/applicants/diagnostic_reports.pdf

There are several insights that can be gained by studying the diagnostics and the related materials, but one aspect quickly becomes apparent upon review of the overall diagnostic reports. Referring to “Figure 1: Percentage of April 2015 Failing Candidates in Each Diagnostic Category California Professional Land Surveyor Examination,” one can see that a very low percentage of the overall failing population received a “proficient” rating in three of the five categories of the test plan. The interesting part about this observation is that those three categories—Research, Pre- and Post-Field Analysis; Field Work; and Mapping and Document Preparation—total 73 percent of the overall questions.

This aspect is not isolated to the professional land surveyor examination. Referring to “Figure 2: Percentage of April 2015 Failing Candidates in Each Diagnostic Category California Civil Engineering Surveying Examination,” one can see similar performance in three of the five categories—Calculations, Field Measurements, and Data Application Procedures—totaling 86 percent of the overall questions. A similar result can be viewed in “Figure 3: Percentage of April 2015 Failing Candidates in Each Diagnostic Category California Civil Seismic Principles Examination,” where two of the five categories—Seismic Forces and Seismic Analysis Procedures—totaling 65 percent of the overall questions. And finally, in “Figure 4: Percentage of April

(continued on page 11)
2015 Failing Candidates in Each Diagnostic Category Geologist California Specific Examination,” a very low percentage of the overall failing candidate population received a “proficient” rating in two of the seven categories—General Geology Practice: General Geology Practices Applied to California, and Health, Safety, and Professional Ethics—totaling 45 percent of the overall questions.

Figure 2: Percentage of April 2015 Failing Candidates in Each Diagnostic Category California Civil Engineering Surveying Examination

<table>
<thead>
<tr>
<th>Test Plan Area</th>
<th>Deficient</th>
<th>Marginal</th>
<th>Proficient</th>
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<tbody>
<tr>
<td>Standards of Practice (6%)</td>
<td>41%</td>
<td>38%</td>
<td>21%</td>
</tr>
<tr>
<td>Equipment and Uses (8%)</td>
<td>38%</td>
<td>41%</td>
<td>21%</td>
</tr>
<tr>
<td>Field Measurements (28%)</td>
<td>82%</td>
<td>16%</td>
<td>2%</td>
</tr>
<tr>
<td>Calculations (33%)</td>
<td>77%</td>
<td>18%</td>
<td>5%</td>
</tr>
<tr>
<td>Data Application Procedures (25%)</td>
<td>69%</td>
<td>26%</td>
<td>5%</td>
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Figure 3: Percentage of April 2015 Failing Candidates in Each Diagnostic Category California Civil Seismic Principles Examination

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<th>Test Plan Area</th>
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<th>Marginal</th>
<th>Proficient</th>
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<tbody>
<tr>
<td>Seismic Data and Design Criteria (8%)</td>
<td>57%</td>
<td>32%</td>
<td>11%</td>
</tr>
<tr>
<td>Seismic Characteristics of Engineered Systems (17%)</td>
<td>67%</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td>Seismic Forces (35%)</td>
<td>81%</td>
<td>15%</td>
<td>4%</td>
</tr>
<tr>
<td>Seismic Analysis Procedures (30%)</td>
<td>76%</td>
<td>22%</td>
<td>2%</td>
</tr>
<tr>
<td>Seismic Detailing and Construction Quality Control (10%)</td>
<td>52%</td>
<td>32%</td>
<td>16%</td>
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Figure 4: Percentage of April 2015 Failing Candidates in Each Diagnostic Category Geologist California Specific Examination

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<th>Test Plan Area</th>
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<tr>
<td>I. General Geology Practice (45%)</td>
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<td></td>
</tr>
<tr>
<td>A. General Geology Practices Applied to California (23%)</td>
<td>68%</td>
<td>27%</td>
<td>5%</td>
</tr>
<tr>
<td>B. Health, Safety, and Professional Ethics (22%)</td>
<td>69%</td>
<td>23%</td>
<td>8%</td>
</tr>
<tr>
<td>II. California Geology (7%)</td>
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<td></td>
</tr>
<tr>
<td>III. Applied Geology Practice (48%)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>A. Hydrogeology (18%)</td>
<td>79%</td>
<td>19%</td>
<td>2%</td>
</tr>
<tr>
<td>B. Environmental Geology (18%)</td>
<td>50%</td>
<td>35%</td>
<td>15%</td>
</tr>
<tr>
<td>C. Engineering Geology (9%)</td>
<td>50%</td>
<td>23%</td>
<td>27%</td>
</tr>
<tr>
<td>D. Energy Resources and Mining Geology (3%)</td>
<td>29%</td>
<td>55%</td>
<td>16%</td>
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The data generates questions such as: Are candidates getting appropriately prepared through education or work experience? Do applicants understand their deficiencies? Do professional references help these potential licensees by implementing a career plan in concert with the licensing requirements? Can applicants objectively self-evaluate their abilities? These questions are especially important given that California issues licenses specific to each discipline rather than generic professional licenses, which put greater weight on the licensee’s own evaluation of their abilities.

Because the professional licenses issued by the Board allow broad-based practice, it can be difficult for unsuccessful candidates with limited practice experience to achieve a passing score without identifying the areas where they need to better demonstrate minimal competence. When receiving a fail notice and corresponding diagnostic report, the candidate can compare their performance to the published test plan for this exam and determine where they need additional experience and/or education.

Exams for professional licensure are intended to measure the application of education and experience to real world situations. Generally, questions are designed to measure a candidate's decision when the laws and principles of the practice are applied to a particular problem that the candidate will encounter within the authority of the specific practice.

The Board is publishing this information in the hope that:

- Future licensing candidates more clearly understand the breadth and depth of knowledge and experience required to become licensed.
- Current licensed professionals more clearly recognize their role in developing potential candidates and the impact their mentoring has on the success of their chosen profession in the future.
- Failing candidates have the necessary tools at their disposal that can directly assist them in understanding where their deficiencies lie so that efforts can be made in an efficient manner toward eventually becoming licensed.
- Consumers can better understand the path toward licensure for the professional they need and, as a result, be better informed when they seek a professional for a specific need.

Board members and staff are available to speak with individuals and groups on this topic. Contact us by calling (916) 263-2222 or sending an e-mail to bpels.office@dca.ca.gov.
How Do the Missions and Functions of the Board and NCEES Differ?

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<tr>
<th>Board for Professional Engineers, Land Surveyors, and Geologists (Board)</th>
<th>National Council of Examiners for Engineering and Surveying (NCEES)</th>
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<tbody>
<tr>
<td>Licensing and regulatory agency</td>
<td>National nonprofit dedicated to administering professional licensing exams</td>
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**MISSION**

- Safeguard the life, health, property, and welfare of the public by regulating the practices of professional engineering, land surveying, geology, and geophysics.
- Advance licensure for engineers and surveyors in order to safeguard the health, safety, and welfare of the public.

**FUNCTIONS**

- Licenses professional engineers, land surveyors, geologists, and geophysicists.
- Regulates the practice of civil (including geotechnical and structural), electrical, and mechanical engineers; geologists; and geophysicists as mandated by State law.
- Authorizes the use of other specific engineering, land surveying, and geological titles.
- Licenses individuals only, not companies.
- Uses NCEES tests as one requirement for professional licensure.
- Anticipates changes in the four professions to ensure laws and regulations are contemporary, relevant, and responsive.
- Facilitates professional mobility and promotes uniformity of the U.S. licensure processes through services for its member licensing boards and licensees. These services include the records program, study materials, credentials evaluations, exam administration, and more.

Board Speakers Available

The Board continues in its efforts to reach out to groups interested in any of the broad array of Board functions. As part of this outreach effort, we have speakers available to present at meetings and events; speakers include Executive Officer Ric Moore, PLS; Assistant Executive Officer Nancy Eisler; Enforcement Manager Tiffany Criswell; Senior Registrar Susan Christ, P.E.; Senior Registrar Mike Donelson, P.E.; Senior Land Surveyor Registrar Ray Mathe, PLS; and Senior Registrar for Geologists and Geophysicists Laurie Racca, P.G.

Our Enforcement, Licensing, Examination, and Outreach Units all have speakers authorized to represent the Board. To request a speaker, we will need the following information: size of group, location, time, length and type of presentation, and proposed subject matter. Appropriate advance notice is always appreciated.

Current and former Board members may also appear on the Board’s behalf, depending on availability.

For more information, contact the Outreach Administrator at the Board, Brooke Phayer at Brooke.Phayer@dca.ca.gov or (916) 263-2239.
NCEES Engineering Communities Emerging Leader Program: An Interview with Alice Rystov

We are pleased to present our first Q-and-A article with an emerging leader Alice Rystov. Alice connected with the Board at the July 2015 Board meeting and is a part of National Council of Examiners for Engineering and Surveying’s (NCEES’) Emerging Leaders program. She offers a wealth of knowledge on subjects directly related to students completing their degree, students taking the first step in the licensure process, the value of licensure, and her involvement with NCEES.

PERSONAL:

1. Please tell us about yourself.
My hometown is St. Petersburg, Russia. My parents immigrated to the U.S. in 1995 in search of more stability for their careers, for myself, and for my brother. My current year of study is a senior; I’m staying an extra two quarters to do a second major, in biochemical engineering (in addition to chemical engineering) and to continue work on my research under Dr. Marjorie Longo. My dream is to one day work as a design engineer for a large petroleum company.

2. What led you to your interest in engineering—specifically chemical engineering?
My interest in chemical engineering was bolstered by my own parents’ being engineers and my love for chemistry. My father is a software engineer and ironically, my mother is a chemical engineer. That, paired with a deep passion for chemistry and process design, has pushed me to really want to make a difference within chemical engineering.

SCHOOL:

1. Does your school (University of California, Davis [UCD]) promote licensure and information about the Board and its functions, or are you mostly “self-taught” in this regard? If so, is information mainly focused on civil engineering as opposed to other smaller disciplines?
While there is an occasional informational session, typically done by the undergraduate advisers, there isn’t a lot of information regarding the FE [Fundamentals of Engineering], particularly the benefits of taking it. Based on my exposure to the civil and mechanical departments at Davis, it is much more strongly emphasized that the FE is an integral part of being a practicing engineer in their respective fields.

2. What do you believe your fellow students should know about the Board?
Students should know specifically that there is a different board for each state, and with that, different requirements.

3. Is the Board seen primarily as a licensing or enforcement body?
I believe the Board is primarily seen as a licensing body, at least from a students’ standpoint.

4. What more could the Board do, in conjunction with UCD or other California schools, to be more proactive and effective in educating students about licensure and knowledge of the Board?
This is an area where the Board has an immense amount of opportunity. Students are always interested in the relevancy of their degrees in industry, and anything that makes them more valuable, and thus more employable, is something they’ll be immensely interested in. If there can be a clear correlation drawn from common industries within chemical engineering, such as petrochemical, biotech, or food/beverage, and their desire to hire engineers with EIT [Engineering-in-Training]/FE certifications, I believe it would bolster students’ interest in NCEES and the Board.

(continued on page 14)
BULLETIN

1. What is your perception of the value of the FE exam and the Professional Engineer (P.E.) license itself? Are your peers aware of the steps to licensure?

My perception of the value of the FE exam is that while it may not be immediately beneficial to students, taking it right after or during college can save students’ time and effort, as the information is fresh in their minds. That way, should they ever have the need to take the P.E. exam, they won’t be limited. It seems, specifically in the chemical engineering discipline, that the majority of students’ are aware that aforementioned exams exist, but most don’t have a good grasp on the steps to obtaining licensure.

2. What’s your opinion on licensure and its necessity for career growth?

As I mentioned above, the FE, while not as critical as the P.E., can show potential employers an extra level of competence in fundamental engineering knowledge. Of course, at the level which a P.E. is required in industry, typically in design work, the exam also serves as a filter for those not qualified to successfully do such work. I believe that specifically in chemical engineering, every undergraduate engineer in the field should have passed the FE.

3. Is it necessary to be licensed in today’s industry or is working under someone in responsible charge more prevalent?

Aside from government work, there’s really no drive in industry to have passed the FE, at least in chemical engineering. Due to it not being a uniform, enforced requirement, most young engineers fall under management of someone in charge who has the aforementioned certification.

4. Do you feel that your view is shared by the majority of your fellow students, or do you see a disparity based on licensing disciplines?

I feel that my view is in fact, not shared by the vast majority of my classmates. Due to there not being a lot of exposure to the FE/P.E., specifically within academia, there’s simply a lack of knowledge about the exam and its advantages. In addition, those who take it are often seen as overachievers, as it’s not something that’s strongly emphasized as being needed.

5. What is you feeling about the “minimum competency” standard set for the awarding of a professional license? Or should a different standard be set?

If anything, the standard should be set higher. Engineering in general is a dangerous field, and only those who are truly competent should be able to practice. Licensing serves as a safeguard to keep those [who] are not competent in a place where they are unable to do catastrophic damage.

6. What are your thoughts about continuing educational requirements?

Just as doctors are required to attend symposiums long after graduating medical school, engineers should also hold that same idea of staying “current.” I think the continuing education requirements allow and encourage this to happen.

NCEES:

1. As a student, what brought you to your understanding of NCEES?

I had a close friend who was a working civil engineer and studying for his P.E. exam, so I started researching if chemical engineering had a similar certification, which is how I came into knowing about NCEES.

2. How did you become involved in the Emerging Leaders program?

There was an e-mail sent out during the academic year through my subscription to receive news and updates from NCEES that contained a call for the emerging engineers group. I applied immediately and waited nervously to see if I was selected, and luckily, it was in the cards for me!

3. What do you see as the current challenges that NCEES faces, and what changes would you hope to see in the future from NCEES?

I believe the main challenge NCEES faces is finding a way to evolve licensure as being a necessity for any engineering discipline, not just civil or mechanical. What I hope to see is a more modern influence within NCEES, and more congruency between the state boards!
Enforcement Actions

Citations Issued to Unlicensed Individuals: Fiscal Year 2014–15 (April–June)

Citations are an alternative to criminal prosecutions that the Board can use to enforce the laws prohibiting the unlicensed practice of engineering, land surveying, geology, and geophysics, or other activities for which a license is required. When a fine is levied with a citation, payment of the fine does not constitute admission of any violations charged but represents a satisfactory resolution of the matter pursuant to Business and Professions Code section 125.9(d). Code sections numbered in the 6700s, 7800s, and 8700s refer to the Business and Professions Code; those numbered in the 400s and 3000s refer to Title 16 of the California Code of Regulations. You can look up the code sections and read the laws on the Board’s website, www.bpelsg.ca.gov/laws/index.shtml. All final citations are matters of public record. For a copy of the final citation order or if you have any questions, you may contact the Board’s Enforcement Unit at BPELS.Enforcement_Information@dca.ca.gov or (916) 263-2284. Please include the name of the cited person and the citation number in your request.

<table>
<thead>
<tr>
<th>Cited Person</th>
<th>Citation No.</th>
<th>Violation Code Section(s)</th>
<th>Date Final</th>
<th>Fine Amount</th>
<th>Status of Fine</th>
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<tbody>
<tr>
<td>Deford, Scott</td>
<td>10415-U</td>
<td>6787(d)</td>
<td>5/13/2015</td>
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<td>Esgate, Brian</td>
<td>10424-U</td>
<td>6787(a)</td>
<td>6/3/2015</td>
<td>$5,000</td>
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<td>Hand, Bill</td>
<td>10387-U</td>
<td>6792(a),(i)</td>
<td>4/19/2015</td>
<td>$1,500</td>
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<td>Josefowski, Christopher</td>
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<td>6787(a),(d)</td>
<td>6/5/2015</td>
<td>$5,000</td>
<td>Paid</td>
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<td>Sommers, Stephen</td>
<td>10425-U</td>
<td>6787(a),(g); 6792(a),(i)</td>
<td>6/3/2015</td>
<td>$22,000</td>
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<td>Sutter, Mike</td>
<td>10426-U</td>
<td>6787(a),(i)</td>
<td>6/4/2015</td>
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<td></td>
</tr>
</tbody>
</table>

(continued on page 16)
A formal disciplinary decision is considered formal administrative disciplinary action against a licensee. It results from the Board’s adoption of a proposed decision prepared by an administrative law judge following a hearing, a stipulated settlement agreement, or a default decision following a full investigation and the filing of an accusation. An accusation is a formal legal document that notifies a licensee of the Board’s charges and allegations of violations against the licensee and that requests a disciplinary order be issued. The licensee is entitled to contest the charges at a formal hearing before an administrative law judge or to agree to a stipulated settlement. A final disciplinary decision contains findings and determinations or statements of advisements, waivers, and culpability and a disciplinary order. If there are findings of violations, the order may include revocation or suspension of the license, a stayed revocation or suspension of the license with a probationary period and terms and conditions or probation, or a public reproval. In the alternative, the decision may find that no violations or violations of a de minimus nature occurred and order the dismissal of the accusation. All final disciplinary decisions are matters of public record. For a copy of the final decision or if you have any questions, you may contact the Board’s Enforcement Unit at BPELS.Enforcement_Information@dca.ca.gov or (916) 263-2284. Please include the name of the respondent and the case number in your request.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Case Number</th>
<th>Effective Date</th>
<th>Disciplinary Order</th>
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<tbody>
<tr>
<td>Gilbert, Robert C.</td>
<td>1087-A</td>
<td>5/15/2015</td>
<td>Revocation of license</td>
</tr>
<tr>
<td>Lee, Mun Kyu</td>
<td>1073-A</td>
<td>6/30/2015</td>
<td>Voluntary surrender of Pre-82 Civil Engineer License; issuance of new civil engineer license effective 6/30/15</td>
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<tr>
<td>Mungia, Frank</td>
<td>1067-A</td>
<td>5/15/2015</td>
<td>Revocation, stayed; probation</td>
</tr>
<tr>
<td>Stevens, Charles</td>
<td>1065-A</td>
<td>5/15/2015</td>
<td>Revocation, stayed; probation</td>
</tr>
<tr>
<td>Thelwell, Alfred</td>
<td>1046-A</td>
<td>5/15/2015</td>
<td>Revocation, stayed; probation</td>
</tr>
</tbody>
</table>

**Definitions: Outcomes of Formal Administrative Disciplinary Decisions**

**Public Reproval**: The licensee is sent a letter of public reproval advising him or her of the violations. The letter is a matter of public record, and a copy will be provided upon request. There are no restrictions on the right to practice, nor is the licensee on probation. This action constitutes formal administrative disciplinary action against the license (and is not the same as a citation).

**Revocation, Stayed; Probation**: The order of revocation of the license has been stayed (put on hold), and the licensee has been placed on probation for a specified period of time with terms and conditions. If probation is successfully completed, the license will be fully restored. If the probation is violated, the Board can pursue further action to terminate the stay and impose the order of revocation.

**Revoked or Revocation of License**: The license is terminated, and the right to practice is ended.

**Suspended**: The licensee is prohibited from practicing for a specific period of time.

**Voluntary Surrender or Surrender of License**: The license has been voluntarily returned to the Board, and the right to practice has ended. This action constitutes formal administrative disciplinary action against the license.
ABET accredits programs, not institutions. They provide specialized accreditation for post-secondary programs within degree-granting institutions already recognized by national or regional institutional accreditation agencies or national education authorities worldwide.

ABET accreditation is voluntary, and to date, more than 3,400 programs at nearly 700 colleges and universities in 28 countries have received ABET accreditation.

To find out if a program is ABET-accredited, do an online search at http://main.abet.org/aps/Accreditedprogramsearch.aspx.

ASBOG
“Public Protection Through Licensure”
The National Association of State Boards of Geology (ASBOG) is a not-for-profit, nongovernmental accrediting agency that serves as a connective link among the individual state geologic registration licensing boards for the planning and preparation of uniform procedures and the coordination of geologic protective measures for the general public.

One of ASBOG’s principal services is to develop standardized written examinations for determining qualifications of applicants seeking licensure as professional geologists.

ASBOG Administers the Fundamentals of Geology Examination
The Fundamentals of Geology (FG) examination is a requirement for a person to become a licensed professional geologist and to offer geologic services to the public in states that register geologists by examination. Pass-fail analyses of the FG examination indicate that nearly 50 percent of the applicants who take the examination are unqualified to practice geology in the 1990s.

Much of today’s geological practice affects the health, safety, and welfare of the public, the environment, and the economy and feasibility of engineered works. Thus, the public should be protected.
For the second year in a row, the Board participated in Camp Pendleton Day on June 18 at the Pacific Views Event Center. Military veterans were given information and encouragement to seek an engineering licensure in California. The event was sponsored by the Society of American Military Engineers. The presentations included the latest happenings at Camp Pendleton and Naval Base Coronado as well as other military base units. It was another successful event of learning, networking, and assisting military veterans in the transition to civilian life and work. The theme this year was “Get Smart!” and it focused on opportunities associated with the military’s current Smart Infrastructure Initiatives. This year’s event was an amazing success with more than 400 attendees and 65 sponsors/exhibitors. Participation resulted in better understanding of available opportunities in licensure.

Professional engineers in the active military provide encouragement to future licensees. The most recent presentation by a licensee was given by Captain Darius Banaji, P.E., who offered information on the Naval Facilities Engineering Command End-of-Fiscal-Year Workload Update on July 9, 2015.

For more information, visit http://sameoc.org/2015-cpen-day.html#sthash.NQ76FS4E.dpuf.

Recent Board Outreach Events

2015 Engineering Design Showcase at UC Davis

The College of Engineering at University of California (UC), Davis, presented the Engineering Design Showcase on June 4 at the UC Davis Pavilion. Students shared their senior group projects, applying the knowledge and skills gained during their years of study at UC Davis. Featuring more than 140 teams (more than 550 students), the Engineering Design Showcase included displays and prototypes of student engineering projects in such fields as aerospace, mechanical engineering, medical and veterinary technology, electronics, and chemical engineering.

For more information, visit http://engineering.ucdavis.edu/blog/2015-engineering-design-showcase-at-uc-davis/.

Camp Pendleton Day at the Pacific Views Event Center

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For more information, visit http://sameoc.org/2015-cpen-day.html#sthash.NQ76FS4E.dpuf.
Legislation and Regulation News and Updates

Every legislative session, the Board tracks and analyzes bills that impact the Board’s operations and the licensed professions the Board regulates and the statutes that determine that authority. We consistently strive to identify, analyze, and advertise at public Board meetings the bills introduced that may change the landscape of our statutory authority. For more information on upcoming Board meetings and to download meeting materials, go to [www.bpelsg.ca.gov/about_us/meetings/index.shtml](http://www.bpelsg.ca.gov/about_us/meetings/index.shtml). The following is a summary of tracked legislation and current regulations:

**Legislation**

**Assembly Bill 177** (Bonilla)

**Professions and vocations:** Engineers

**Introduced:** January 26, 2015

**Laws:** Business and Professions Code, relating to professions and vocations

**Bill summary:** The Professional Engineers Act and the Professional Land Surveyors’ Act provides for the licensure and regulation of engineers by the Board. This bill would extend these provisions until January 1, 2020. This bill would merge the Geology and Geophysics Account of the Professional Engineer’s and Land Surveyor’s Fund into one fund. The bill would also add, as a cause for disciplinary action, if a licensee fails to respond to a written request from the Board to cooperate in the investigation of a complaint.

**Assembly Bill 320** (Wood)

**Environmental engineer.**

**Introduced:** February 13, 2015

**Laws:** Amend section 6732 of the Business and Professions Code, relating to engineers

**Bill summary:** The bill would create an “Environmental Engineer” title license. The bill would set forth the intent of the Legislature that the Board be responsible for defining environmental engineering through rulemaking and that the Board adopt standardized examination materials applicable to environmental engineering, as specified.

**Senate Bill 284** (Cannella)

**Limited liability partnerships.**

**Introduced:** February 19, 2015

**Laws:** Amend sections 6738 and 8729 of the Business and Professions Code

**Bill summary:** This bill would extend the operation of engineering and land surveying limited liability partnership provisions until January 1, 2019.

**Regulations**

The Board has submitted a rulemaking proposal to amend section 438 of Title 16 of the California Code of Regulations relating to the removal of outdated language regarding the Fundamentals of Engineering examination and the Fundamentals of Surveying examination. In addition, this proposal makes other changes as a result of legislation. All information pertaining to the Rulemaking File can be found on the Board’s site, [www.bpelsg.ca.gov/about_us/rulemaking.shtml](http://www.bpelsg.ca.gov/about_us/rulemaking.shtml).
In Memoriam

In Celebration of the Lives and Contributions of the Following Professionals

The Board would like to recognize professionals licensed as engineers, land surveyors, or geologists who have recently passed away. Below is list of individuals who have departed between April and June 2015. This list may not include all those who have recently passed, as we rely on information from the public, other licensees, and family members. Please contact the Board regarding individuals who have recently passed.

<table>
<thead>
<tr>
<th>Name</th>
<th>License No.</th>
<th>Years of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>George Dewey Johnson</td>
<td>C 17065</td>
<td>48</td>
</tr>
<tr>
<td>Joseph Pino Napolitano</td>
<td>C 20131</td>
<td>44</td>
</tr>
<tr>
<td>Eduardo Ortega</td>
<td>C 41012</td>
<td>29</td>
</tr>
<tr>
<td>Clifford N. Underwood</td>
<td>C 16121</td>
<td>50</td>
</tr>
<tr>
<td>Lawrence Lee Baco</td>
<td>L 3527</td>
<td>47</td>
</tr>
<tr>
<td>Richard J. Coughlan</td>
<td>L 3227</td>
<td>51</td>
</tr>
<tr>
<td>Robert C. Hart Jr.</td>
<td>L 5784</td>
<td>28</td>
</tr>
<tr>
<td>Duane D. Holmes</td>
<td>L 6168</td>
<td>26</td>
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<tr>
<td>Ralph Donald Miller</td>
<td>L 3639</td>
<td>46</td>
</tr>
<tr>
<td>Robert Michael Snyder</td>
<td>L 4726</td>
<td>30</td>
</tr>
<tr>
<td>Gerald Adreon Styraner</td>
<td>L 3739</td>
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<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Ernest Hilliard Barber</td>
<td>C 30209 M 28174</td>
<td>36 22</td>
</tr>
<tr>
<td>James Burrus Hayes</td>
<td>C 18182 S 1739</td>
<td>47 44</td>
</tr>
<tr>
<td>Fred Howard Kulhawy</td>
<td>C 23536 GE 490</td>
<td>42 28</td>
</tr>
<tr>
<td>John James Silveira</td>
<td>C 13307 AG 361</td>
<td>53 38</td>
</tr>
<tr>
<td>Fereydoun Tabib</td>
<td>C 17665 S 1689</td>
<td>48 44</td>
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</tbody>
</table>

Contact Us

California Board for Professional Engineers, Land Surveyors, and Geologists
2535 Capitol Oaks Drive, Suite #300
Sacramento, CA 95833

ADMINISTRATION
- Executive Officer: Ric Moore (916) 263-2222
- Assistant Executive Officer: Nancy Eissler (916) 263-2222
- Administration Supervisor: Jeff Alameida (916) 263-2222

ENFORCEMENT AND COMPLAINTS: (916) 263-2284
- FINGERPRINTING: Jen Mueller (916) 263-2283
- EIT (FE) OR LSIT (FS): Linda Liu (916) 263-2232
- GIT (FG): Dolly Kampfraat (916) 263-1855

PE, PLS, PG, OR PGP LICENSURE QUALIFICATIONS OR APPLICATIONS
- PE/PLS Evaluator 1: Last Names A–G (916) 263-1157
- PE/PLS Evaluator 2: Last Names H–N (916) 263-2252
- PE/PLS Evaluator 3: Last Names O–Z (916) 263-1436
- PG/PGp Evaluator 4: All Geologists and Geophysicists (916) 263-1855

LICENSE RENEWAL: Vicki Kereszt (916) 263-2268

OUTREACH: Brooke Phayer (916) 263-2239

SENIOR REGISTRARS (FOR PROFESSIONAL LICENSES)
- Engineers (Civil, Structural, and Geotechnical): Susan Christ, PE (916) 263-2247
- Engineers (Other Than Civil): Michael Donelson, PE (916) 263-2248
- Geologists and Geophysicists: Laurie Racca, PG (916) 263-2406
- Land Surveyors: Ray Matha, PLS (916) 263-2271

WEBMASTER: Celina Calderone (916) 263-2230
The Board is asking for your help in getting the word out regarding the launch of its Facebook and Twitter pages. The Board is now posting information of interest to postsecondary institutions and students on a regular basis. This information includes regulatory changes, updates to our website, interesting articles, useful resources, and a host of other Board-related data.

For those institutions that communicate with students through e-mail or some other means, we invite you to share this information with them. The Board is anxious to use these social media outlets as an ongoing way to reach our stakeholders. Thank you for your assistance in spreading the word.

Please take a few minutes to “like” us on Facebook and follow us on Twitter:

Facebook - www.facebook.com/pages/The-Board-for-Professional-Engineers-Land-Surveyors-and-Geologists/107020752801578
Twitter - twitter.com/CA_Engineers