Board for Professional Engineers, Land Surveyors, and Geologists

STATE OF CALIFORNIA
dca
DEPARTMENT OF CONSUMER AFFAIRS

Governor Edmund G. Brown

Meeting of the Board for Professional Engineers, Land Surveyors, and Geologists

February 12 & 13, 2014
9:00 a.m.

Office of the Attorney General
110 West A Street, 13th Floor Conference Room
San Diego, CA 92101

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MEETING OF THE BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

BOARD MEETING LOCATION **FEBRURARY 12-13, 2013**

OFFICE OF THE ATTORNEY GENERAL
110 WEST A STREET
13TH FLOOR CONFERENCE ROOM
SAN DIEGO, CA 92101

BOARD MEMBERS

Board Members: Erik Zinn, President; Kathy Jones Irish, Vice President; Natalie Alavi; Asha Brooks; Diane Hamwi; Eric Johnson; Coby King; Philip Quartararo; Hong Beom Rhee; Ray Satorre; Jerry Silva; Robert Stockton; and Patrick Tami

I. ROLL CALL TO ESTABLISH A QUORUM

II. PUBLIC COMMENT

III. EXECUTIVE OFFICER'S REPORT

A. Legislation
   1. Discussion of Legislation for 2014: AB 186; AB 1551
   2. Status of Board Legislative Proposals for 2014
      a. Petitions for Reinstatement – Geologists and Geophysicist Act
      b. Petroleum Geologists Qualifications
      c. Remove "eight-hour" Term from Section 6759 of the Business and Professions Code

B. Strategic Plan

C. Personnel

D. Administrative Task Force

E. BreEZe Status Update

Board for Professional Engineers, Land Surveyors, and Geologists

2014 Legislative Session

AB 186 Maienschein. Professions and vocations: military spouses: temporary licenses. This bill would authorize a board within DCA to issue a temporary license for 12 months to an applicant who meets certain requirements.
STATUS: Introduced 1/28/13. Last amended 6/24/13. Passed Assembly. Heard in SEN B,P&ED Committee 7/1/13 - testimony taken. Further hearing to be set – this is now a 2 year bill.
BOARD POSITION: Oppose unless amended

AB 1551 Holden. Professional engineers and land surveyors: documents. Would prohibit a person from using a licensed engineer's documents, without the written consent of the licensed engineer and prohibit a person from using a licensed land surveyor's maps, plats, reports, descriptions, or other documentary evidence without the written consent of the licensed land surveyor.
STATUS: Introduced 1/27/14. May be heard in Assembly B,P&C.P 2/27/14.
BOARD RECOMMENDATION: Oppose

Board for Professional Engineers and Land Surveyors
Bill Analysis
2014 Legislative Session

BILL: AB 186

AUTHOR: Maienshein
COAUTHOR: Hagman

TOPIC: Professions and vocations: military spouses
DATE OF INTRODUCTION: 1/28/13
MOST RECENT VERSION: 6/24/13
ANALYSIS DATE: 1/23/14
BILLS LEGISLATIVE HISTORY: Passed Assembly. Heard 7/1/13 in Senate Committee on Business, Professions, & Economic Development – testimony taken. Further hearing to be set. This is now a two year bill.
BOARD POSITION: Oppose unless amended

SUMMARY: Assembly Bill 186 seeks to authorize military spouses, who have moved here on active duty orders and who have a valid professional license in another state, to receive a 12 month temporary license in the same profession for which they are applying for licensure. The licensee applicant must provide sufficient evidence of being married to, or in a domestic partnership or legal union with, an active duty member of the United States Armed Forces. Also, the licensee applicant shall not have been disciplined by another licensing entity and shall confirm, in writing, that all application information is accurate.

HISTORY: According to Assembly member Maienshein's office, "A recent study by the California Research Bureau has found that California has approximately 72,500 military spouses residing in the state at any given time. It is estimated that over one third of these individuals are involved in a profession that requires some sort of licensing requirement." "According to the Department of Defense, military spouses are ten times more likely to have moved across state lines in the last year compared to their civilian counterparts." With the implementation of provisional licensing through AB 186, military spouses will be able to immediately look for employment to help support their families while taking all the necessary steps to apply and receive a license from the state.

In 2011/12, AB 1904 (Chapter 399, Statutes of 2012), introduced temporary licensure or provisional license for a spouse or domestic partner of an active duty member of the Armed Forces of the United States. AB 1904 was amended, and passed, to require boards within the Department of Consumer Affairs (DCA) to expedite the license process.

AB 186 reestablishes a temporary license, limited to 12 months, while the individual's application is processed for licensure. To receive a temporary license, the individual must have a clean criminal history and verify, in writing, that all application information is accurate. DCA has not taken a formal position regarding the current version.

COMMENT: Until January 1, 2014, the Board issued temporary authorizations for engineers, geologists, and geophysicists. However, it was not considered a license and authorization is granted for a specific project and is not to exceed a certain number of days. For engineers, authorization was granted for 180 days; for geologists and geophysicists, it was 60 days. Since 1995, the Board issued temporary authorizations to forty civil engineers. However, only one (1) was issued since December 2010. If the individual was granted a temporary authorization they were required to take

the next administration of the California specific examination. Several individuals failed to pass the California-specific exam. The Board sponsored legislation to repeal "temporary authorizations". Senate Bill (SB) 152 (Chapter 178, Statutes 2013) removed sections 6760, 7848, and 7848.1 from Business and Professions Code pertaining to temporary authorizations being issued to practice professional engineering, geology, or geophysics.

The Board provides comity licensure to all out-of-state individuals that meet the Board requirements. All applicants who've taken and passed a national exam shall receive a license if passage of a national exam is all that is required. If the Board has a California specific exam, like civil engineering, the individual must take and pass that exam prior to receiving licensure from the Board and also have the education, experience, and reference letters to meet licensing requirements. If the individual is not approved and requires additional qualifications the applicant may work under responsible charge of a California licensee until those requirements are met.

The Board's concern when issuing a temporary license is public safety, specifically related to the practice of civil engineering. The Board cannot guarantee that the individual meets California competency levels for licensure until that individual passes the California-specific exams. Specifically, the applicant needs to demonstrate knowledge of seismic forces in the design of structures. Because California has distinctive geography experience and education is necessary before the applicant practices civil engineering proficiently. Allowing any individual to provide professional engineering, geology, or geophysics to a California consumer without proper qualifications and competency opens up California, the consumer, and the Board to potential problems.

It is unknown at this time how many active military licensees the Board has licensed as current systems do not track this information. Most likely this number is very low, if any at all, but to allow a temporary license especially for a civil engineer may be detrimental to consumer safety.

Currently, the author's office has accepted the Board's proposed amendments that require these applicants (military spouses) take and pass any California specific examination before being issued a temporary license. The amendments have not been placed in the bill since the amendments were taken in Committee and the bill was held in Committee – as a two year bill.

Board for Professional Engineers and Land Surveyors
Bill Analysis
2014 Legislative Session

BILL: AB 1551 **AUTHOR:** Holden

TOPIC: Professional engineers and land surveyors: documents
DATE OF INTRODUCTION: 1/27/14
MOST RECENT VERSION: 1/27/14
ANALYSIS DATE: 1/29/14
BILLS LEGISLATIVE HISTORY: Introduced 1/27/14. May be heard in Assembly Committee on Business, Professions, & Consumer Protection 2/27/14.
BOARD POSITION: Oppose

SUMMARY: Assembly Bill (AB) 1551 prohibits a person from using a licensed engineer's documents, without the written consent of the licensed engineer. The bill would also prohibit a person from using a licensed land surveyor's maps, plats, reports, descriptions, or other documentary evidence without the written consent of the licensed land surveyor. The bill would prohibit a licensed engineer or land surveyor from unreasonably withholding consent to use these documents.

HISTORY: In 2013/14, AB 630 (Chapter 453, Statutes 2013), was passed and prohibits a person from using an architect's instruments of service without a written contract authorizing that use and prohibits an architect from unreasonably withholding consent from the architect's client to use those instruments of service. According to the author's office, the "bill clarifies that a person or entity must have contractual authorization to use the work, or instruments of service, prepared by an architect. By clarifying existing law in plain English, the objective is to establish a clear law that can be used to avoid timely and costly arguments when an unauthorized user attempts to use the instruments of service prepared by an architect."

The American Institute of Architects, California Council (AIACC) sponsored AB 630 based on numerous firms reporting that persons have attempted to use architectural instruments without consent. The AIACC argues that "architects provide a service and not a product. The service cannot be bought and sold except by the architect, with the consent of the architect, or by the client if the architect has transferred ownership of the intellectual property to the client."

The American Council of Engineering Companies (ACEC) is sponsoring AB 1551. The intent of legislation, similar to AB 630, is to provide contractual protections for engineers and land surveyors and the documents, maps, and reports that they create.

COMMENT: AB 1551, as introduced, intends to remove ambiguity as to who is authorized to use engineering documents and land surveyors maps, plats, and reports. Contractual consent must be written into a contract that specifies ownership.

Business and Professions Code (BPC) Sections (§§§§) 6735(b), 6735.3(b), 6735.4(b), and 8761.2 all provide that a professional engineer or land surveyor is not responsible for subsequent changes that are made to his or her civil, electrical, or mechanical engineering or land surveying documents that are made without his or her knowledge, authorization, or approval.

Additionally, BPC §§ 6749 and 8759 describing written contracts between the licensed professional and the client requires multiple descriptions of services that can include the protection of

documents, plans, and reports or transfer of ownership of those documents, plans, and reports.

AB 1551 seeks to provide additional protections to the licensed engineer or licensed land surveyor at the consumer's expense. The licensed professional "may reasonably withhold consent to use the documents for cause, including, but not limited to, lack of full payment for services provided or failure of the requesting person to fulfill his or her obligations under a written contract pertaining to the services." The authority provided to the licensed professional regarding withholding consent is vague and offers an opportunity for unseemly professionals to restrict services to consumers and is not providing protection for consumers by its process.

This bill also includes provisions that state "the Legislature finds and declares that the provisions of this sections are declaratory of existing law and shall not be construed to limit or eliminate any right otherwise granted by law." However, it is unclear what "existing law" this purports to be declaratory of. There are no provisions in the Professional Engineers Act and Professional Land Surveyors Act that address "ownership" of engineering and land surveying documents. This proposal appears to be an attempt to move copyright infringement claims or claims of failure of the client to pay for services rendered from the civil courts to the licensing/regulatory board.

This is not a consumer protection bill. AB 1551, as written, protects the licensed professional and unfairly favors the rights of the licensed professional when providing contracted services to the detriment of the consumer. The Board staff recommends and oppose position for this bill.

BPELSG Action Plan 2011-2014	Completed	In Progress	Remaining
Goal 1: Protect consumers by effectively discouraging violations of the law before they happen and by aggressively investigating and adjudicating violations.			
Objective 1.1 – Reduce the aging of enforcement cases to align with DCA's standards.			
• Reorganize work assignments to focus on citation process improvement	2/1/2011		
• Increase staff through Budget Change Proposal - **Fingerprint BCP, Geologist Registrar BCP**	7/1/12, 7/1/13		
• Develop and submit a Budget Change Proposal for a Geologist Registrar	7/1/2012		
• Focus on reducing aging while maintaining high quality standards for enforcement cases		✓	
Objective 1.2 – Develop and implement a proactive plan to expand the enforcement outreach program.			
• Contact several like-minded local organizations and agencies		✓	
• Contact Outreach unit in DCA headquarters	4/18/2012		
• Develop an Outreach Plan in conjunction with the DCA Outreach Unit		✓	
Objective 1.3 – Discourage unlicensed and incompetent activity through efficient enforcement actions.		✓	
• Collaborate with Division of Investigation to accomplish sting operations and sweeps		✓	
• Increase Outreach to consumers focused specifically on the dangers of Unlicensed Activity		✓	
• Collaborate with other local agencies by sharing information and educating them on the Board's function		✓	
Objective 1.4 – Improve consumer friendliness of the Board's Web site.			
• Create web mapping to combine the Professional Engineers and Geology Web sites	7/5/2012		
• Develop online address changes and incorporate a paperless process	3/21/2012		
• Establish text recognition on all online documents in accordance with ADA compliance		✓	
• Streamline the information flow and usability of the Web site	7/5/2012		
Objective 1.5 – Establish web accessible information, including linking businesses with licensees.			✓
• Coordinated with the release of BreEZe. **(Breeze dependent)**			✓
Objective 1.6 – Significantly reduce the number of backlogged enforcement cases.			
• See objective 1.1	See objective 1.1		
Objective 1.7 - Encourage DCA to improve their license lookup functionality on the Web site.			✓
• Pending the release of BreEZe. **(Breeze dependent)**			✓
• Coordinate with the BreEZe team to express business needs on decision posting. **(Breeze dependent)**			✓
• Coordinate with the BreEZe team to express business needs on license functionality. **(Breeze dependent)**			✓
Objective 1.8 - Participate in preparations towards the BreEZe conversion.			
• See objective 1.7. **(Breeze dependent)**	See objective 1.7		
Objective 1.9 - Publish enforcement actions on the Board's Web site.		✓	
• Update and post final disciplinary decisions on the Board's Web site		✓	

BPELSG Action Plan 2011-2014	Completed	In Progress	Remaining
Goal 2: To promote laws and regulations that are clear, relevant, unambiguous, and functional.			
Objective 2.1 - Evaluate current laws and regulations and pursue changes where appropriate, with due consideration for economic impact.			
• Review licensing and certification fees for businesses as potential legislative action.	See objective 2.6		
Objective 2.2 - Seek fingerprinting and criminal history authority through legislation.			
• Received authority for applicants in approved 2011 Sunset legislation. **SB 543, Statutes of 2011.**	2011		
• Move forward with legislation to obtain authority for licensees			✓
• Submit Budget Change Proposal for the hiring of fingerprinting staff	7/1/2011		
• Develop and adopt regulations to implement applicant fingerprinting	1/1/2014		
Objective 2.3 - Implement restructuring of examination and application fees.	✓		
• Restructure fees and receive regulation approval for both PELS and Geologists & Geophysicists programs	4/30/2012		
• Publicize the fee restructure once regulations are approved	4/30/2012		
Objective 2.4 - Review delinquent reinstatement requirements and act on the findings if appropriate.		✓	
• Consult the Board for proper direction. **Inclusion in Omnibus Bill.**		✓	
Objective 2.5 - Conduct a review of the penalty structure for unlicensed activity.	✓		
• Review has been conducted. General statutory language affects the maximum fine. Any changes affect other boards/programs.	✓		
Objective 2.6 - Seek statutory authority to require Certificates of Authorization for businesses.			
• Consult Board for further direction		✓	
• Identify staffing requirements of implementing business authorization		✓	
Objective 2.7 - Eliminate Business and Professions Code section 6760 (temporary authorization to practice engineering).			
• On November 2011 Board agenda.	11/1/2011		
• Research has been completed. Staff are currently pursuing legislation. **SB 152.**	8/27/2013		
Objective 2.8 - Amend regulations that allow appeals of national examinations.	✓		
• Completed - effective June 18, 2012.	6/18/2012		
Objective 2.9 - Review statutes and regulations regarding Geologist in Training certification.	✓		
• Qualification requirements added to statute during 2011 legislative session	1/1/2012		
Objective 2.10 - Review statutes and regulations to provide consistency among all of the Board's regulated professions.		✓	
• Review statutes and regulations for consistency across both programs		✓	

BPELSG Action Plan 2011-2014	Completed	In Progress	Remaining
Goal 3: Increase Licensure			
Objective 3.1 - Participate in development, grading, and standard-setting of national examinations.			
• Contract with professional community volunteer as Subject Matter Experts (pending travel freeze exemptions)		✓	
• Increase outreach to colleges and professional societies		✓	
• Add information to Web site's "Exams" tab including links to NCEES and ASBOG	8/12/2013		
• Get report from NCEES on California licensees overall involvement in exam development and track for future reporting	1/1/2013		
Objective 3.2 - Convert all State-specific examinations to computer based testing and provide flexible testing dates.	✓		
• Geotechnical Engineer	10/1/2011		
• California Specific Examinations for Professional Geologist & Professional Land Surveyor	3/1/12, 4/1/12		
• Traffic Engineer/Civil Engineer/ Certified Engineering Geologist/ Certified Hydrogeologist / Geophysicist	9/1/12, 10/1/12		
• Phased implementation for flexible testing dates - Civil	10/1/2012		
Objective 3.3 - Review applications and respond to applicants in a timely manner.			✓
• Contact DCA Strategic Planning & Development Unit to engage in process improvement sessions			✓
• Streamlining of cashiering and EMS approvals pending BreEZe. **(Breeze dependent)**			✓
Objective 3.4 - Maintain and expand the pool of licensees to help develop State-specific examinations.		✓	
• Recruit for development of exams through outreach and direct contact professional associations		✓	
bjective 3.5 - Protect the validity of the content and security of examinations.			
• Consistently monitor exam validity of each test and begin administering through CBT	10/1/2012		
• Engage NCEES in the administration of national exams for PELS	10/1/2012		
• Continue auditing exam information for security, and monitor how it is presented to the CBT vendor		✓	
• Provide occupational analysis as required for each exam	2011-2013		
Objective 3.6 - Accept credit card and PayPal payments for application and examination fees.			✓
• Credit transactions pending BreEZe. **(Breeze dependent)**			✓
Objective 3.7 - Participate in ABET visits.	✓		
• Coordinate Board Member / Staff participation as observers at ABET visits every fall pending travel freeze exemptions.	10/1/2012		
• Encourage public board member participation	11/1/2012		
Objective 3.8 - Pursue the National Council of Examiners for Engineering and Surveying (NCEES) and the Associate of State Boards of Geology (ASBOG) administration of national examinations.	✓		
• Begin National Council of Examiners for NCEES administration	10/1/2012		
• Researched ASBOG implementation. Determined to be unfeasible at this time.	✓		
Objectives 3.9 - Actively participate and attend NCEES and ASBOG meetings to vote on new policies and procedures relating to examinations.	✓		
• Pending out-of-state travel exemptions		✓	
• Organize NCEES Western Zone meetings in San Francisco, California	4/18/2013		

BPELSG Action Plan 2011-2014	Completed	In Progress	Remaining
Goal 4: To pursue and obtain adequate resources to meet the Board's mission and vision.			
Objective 4.1 - Develop incentives and restructure compensation to retain a quality Executive Order.	✓		
• Completed	7/1/2011		
Objective 4.2 - Pursue authorization and funding, if needed, to increase attendance at NCEES meetings and ASBOG meetings.		✓	
• Justify approval & funding for out-of-state and in-state travel to required meetings		✓	
• Justify representing the interest of the licensees and consumers of California at zero-cost events and pre-paid events to Agency and the Governor's office		✓	
Objective 4.3 - Develop and implement career succession plan for Board Staff.		✓	
• Establish a protocol/manual for managers/staff to identify recruiting of current staff for upward mobility to disseminate to staff		✓	
• Develop a Knowledge Retention Plan which includes overlapping retiring staff with new hires		✓	
Objective 4.4 - Pursue funding and hiring freeze exemptions for additional staff in all units and programs as needed.	✓		
• Seek hiring freeze exemptions - currently lifted.	2011		
• Budget Change Proposal for Enforcement Unit staff and Geologist Registrar have been approved at agency level	7/1/2013		
• Budget Change Proposal for the hiring of fingerprint staff	7/1/2012		
Objective 4.5 - Pursue limited-term positions for specific projects.			✓
• Issue dates to be digitally recorded			✓
• Scan enforcement actions and organization record forms			✓
Objective 4.6 - Pursue authority and funding to hire a staff geologist.		✓	
• Rewrite class specifications		✓	

BPELSG Action Plan 2011-2014	Completed	In Progress	Remaining
Goal 5: Outreach			
Objective 5.1 - Expand Enforcement Outreach Program to local and state agencies, professional associations, and consumer groups.			
• See objective 1.2	See objective 1.2		
Objective 5.2 - Obtain resources, including staff, funding, and out-of-state travel approval, to fully support outreach.			
• See objective 1.2	See objective 1.2		
Objective 5.3 - Expand the licensure outreach programs to associations, college career fairs, and schools (e.g. Math Counts, Trigstar).			
• Review engineering magnet schools		✓	
• Publicize at college career fairs			✓
Objective 5.4 - Develop and revise the Board's publications, as needed.			
• Develop and release new tri-annual newsletter.	See objective 5.6		
• Revise the local officials guide to include all disciplines			✓
• Update and revise consumer guide to include all disciplines			✓
• Develop paper promotional materials for colleges			✓
Objective 5.5 - Regularly attend NCEES, ASBOG, and ABET meetings.		✓	
• See objective 3.9	See objective 3.9		
Objectives 5.6 - Regularly develop and distribute an electronic newsletter.		✓	
• See objective 5.4. (Develop and release new tri-annual newsletter)		✓	
Objective 5.7 - Keep abreast of emerging technologies and apply them appropriately.			
• Research feasibility of creating a Board "app" for smartphones, and contact DCA Public Affairs office to discuss social networking opportunities. **(Breeze dependent)**			✓
• Develop license lookup through smartphone "app". **(Breeze dependent)**			✓
• Develop business lookup though smartphone "app". **(Breeze dependent)**			✓
• Make website more user friendly and "mobile app" friendly. **(Breeze dependent)**			✓
• Explore Use of Social Media to Improve Communication (i.e. Facebook, Twitter, LinkedIn)	Spring 2013		

Potential Strategic Plan Goals

Date of Board meeting:

January 2013

- Add outcomes against real numbers (year to year).

June 2013

- Shift pertinent goals that are unmet into the next Strategic Plan.

August 2013

- Flexibility to contract out for increased services in ATS/CAS due to Breeze delay.
- Provide Plastic Pocket IDs.

October 2013

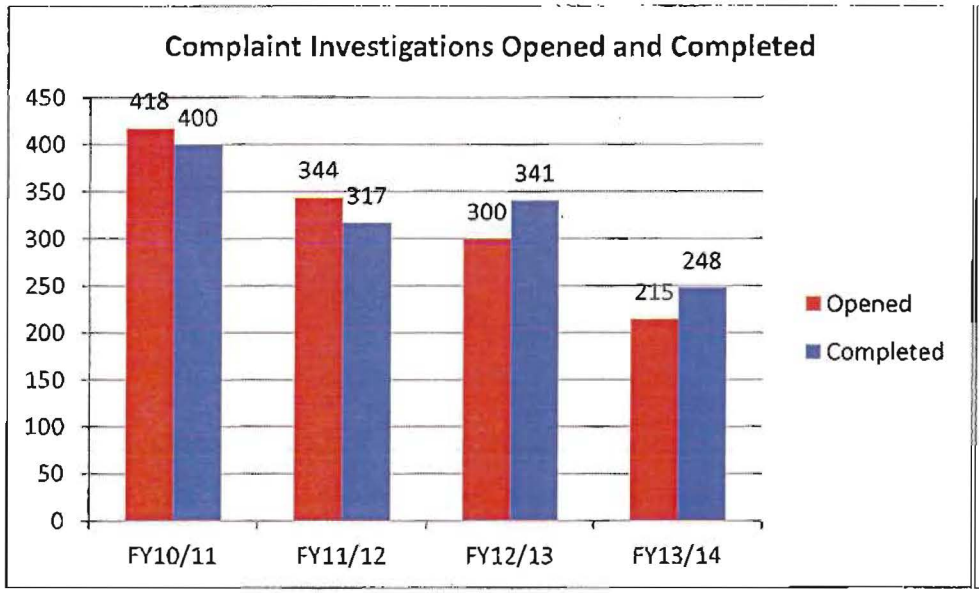
- BCP for additional enforcement staff

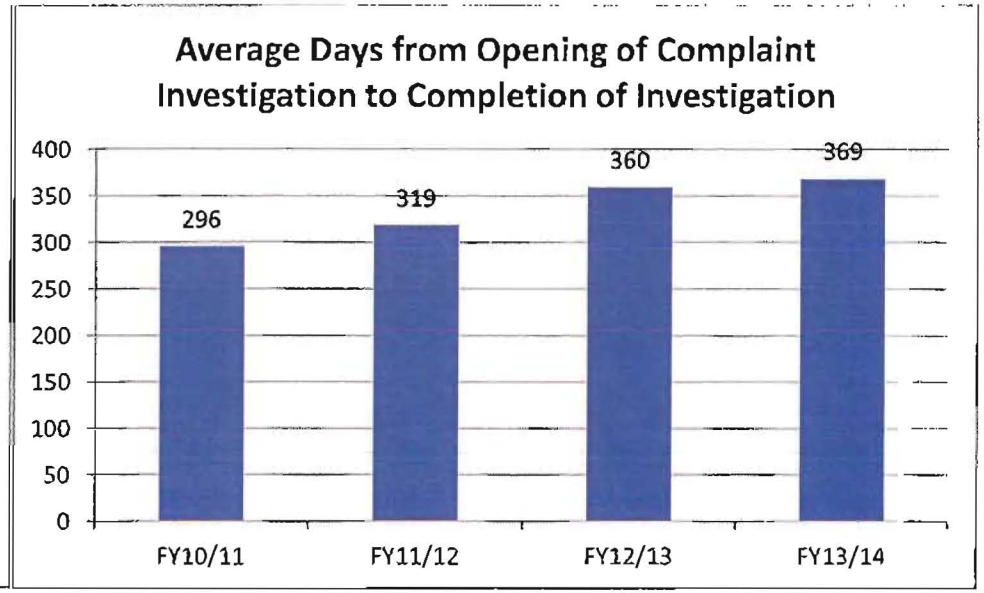
IV. ENFORCEMENT

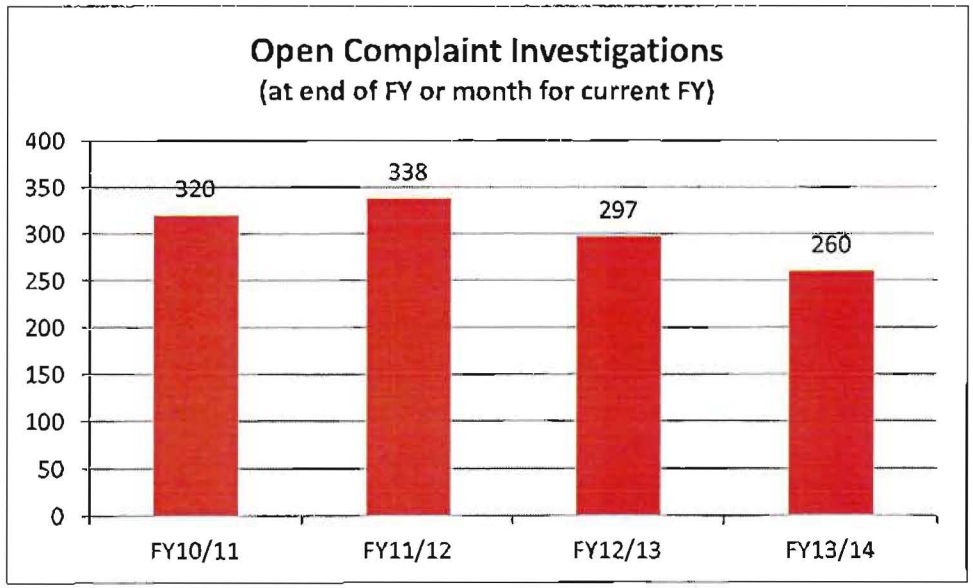
A. Enforcement Statistical Reports
B. Investigative Timeline Goals

PELS ENFORCEMENT PROGRAM

Complaint Investigation Phase





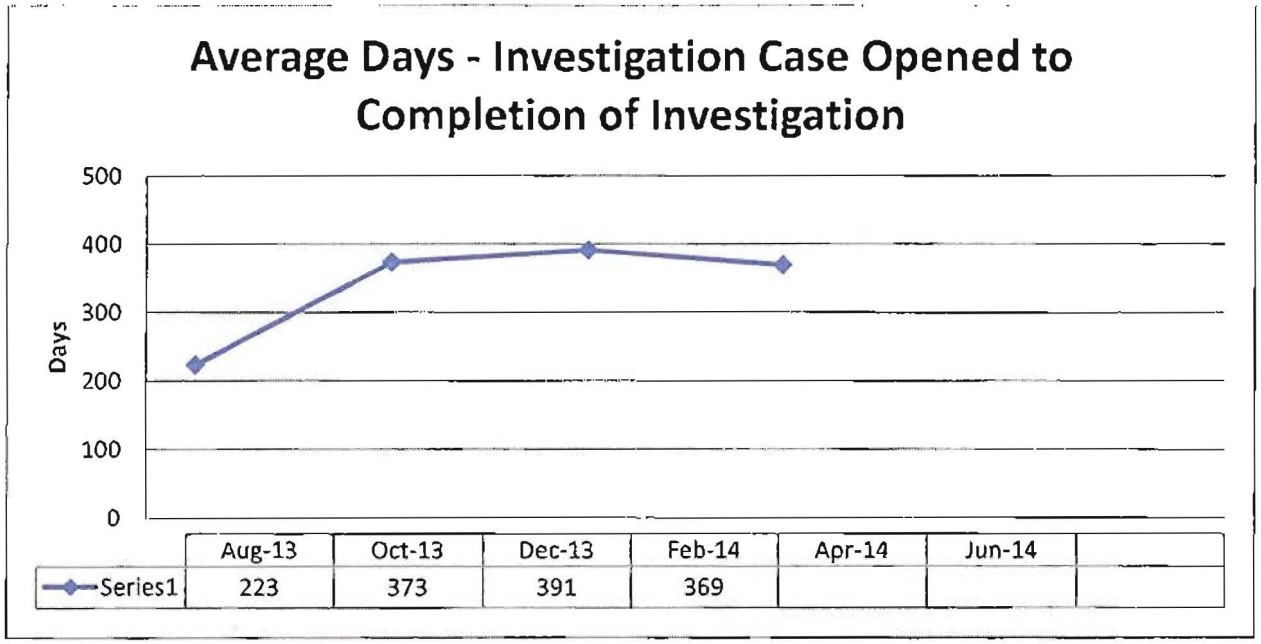


NOTE: FY13/14 statistics are through January 31, 2014

PELS ENFORCEMENT PROGRAM

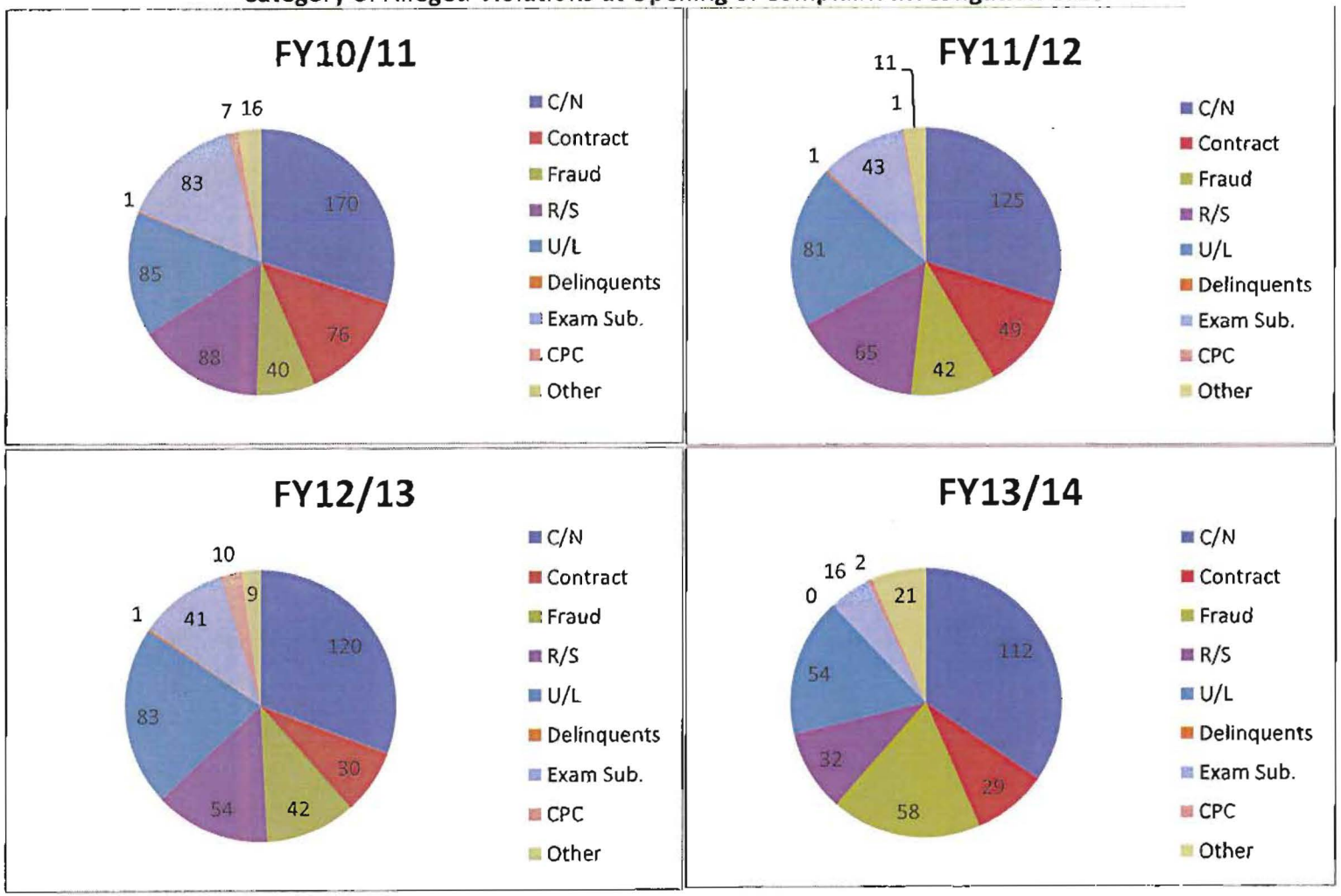
Complaint Investigation Phase

Percentage Change of Aging Based on Board Meeting Dates



PELS ENFORCEMENT PROGRAM

Category of Alleged Violations at Opening of Complaint Investigation Case



NOTE: FY13/14 statistics are through January 31, 2014

NOTE: May total more than the number of complaint investigation cases opened since cases may involve more than one category

C/N = Competence/Negligence

Contract = Contractual Issues (breach of contract, failure to execute written contract, failure to include all required elements in written contract)

Fraud = Fraud/Deceit/Misrepresentation; Aiding and abetting; Criminal conviction

R/S = Failure to file; Failure to resubmit; Monumentation

U/L = Unlicensed Activity

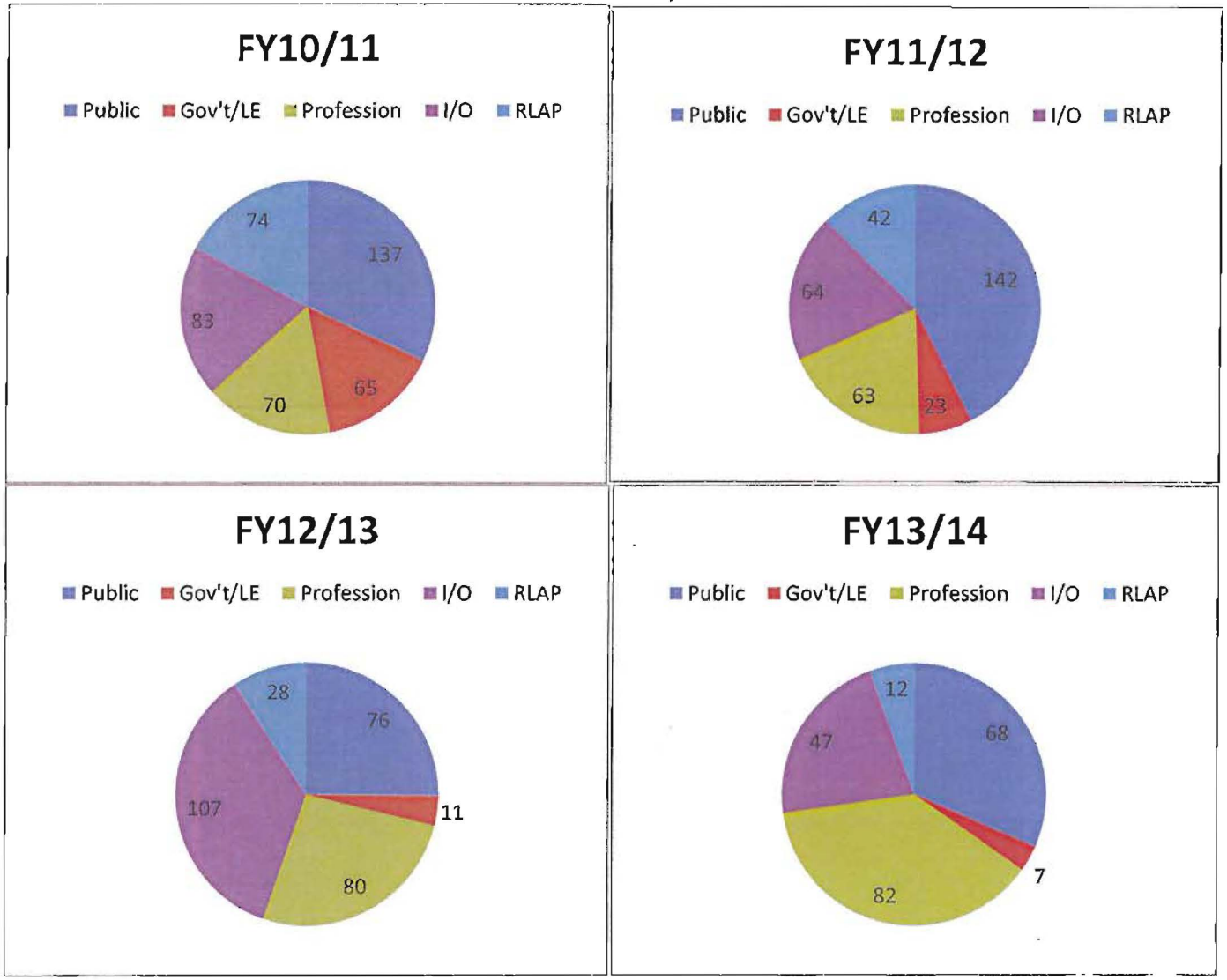
Delinquents = Delinquent Reinstatement applicants

Exam Sub. = Exam subversion (includes those removed from exams and collusion analyses)

CPC = Code of Professional Conduct (16 CCR §§ 475 & 476)

Other = Anything not covered above (i.e., failure to sign/seal; failure to file OR)

PELS ENFORCEMENT PROGRAM
Source of Complaint



NOTE: FY13/14 statistics are through January 31, 2014

NOTE: May total more than the number of complaint investigation cases opened since cases may involve more than one source

Public = Consumers, individuals not licensed by BPELSG, attorneys, etc.

Gov't/LE = Government Agency or Law Enforcement (includes federal, state, and local governmental entities, e.g. County Surveyor's Office, Building Dept.)

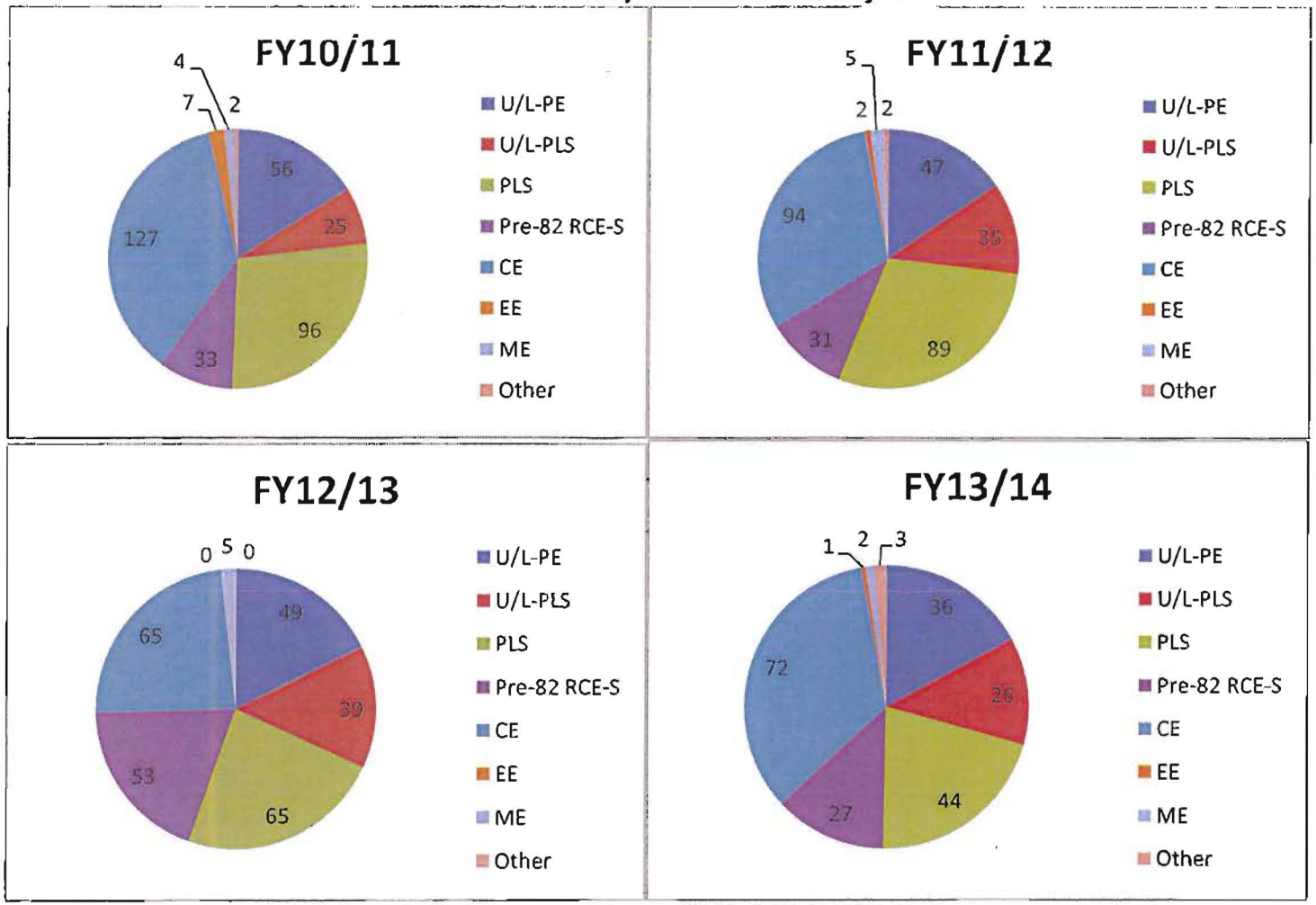
Profession = Licensees of BPELSG; also includes professional associations (such as the JPPC)

I/O = Internal/Other – no complainant (exam subversion), inquiries that result in the Enforcement Unit opening a case, anonymous

RLAP = Reporting of Legal Actions Program – cases opened as a result of receiving a report of a civil judgment, settlement, arbitration award, or conviction

PELS ENFORCEMENT PROGRAM

Area of Practice/Licensure of Subject



NOTE: FY13/14 statistics are through January 31, 2014

NOTE: May total more than the number of complaint investigation cases opened since cases may involve more than one area

U/L-PE = unlicensed activity relating to the practice of professional engineering

U/L-PLS = unlicensed activity relating to the practice of professional land surveying

PLS = allegations relating to the practice of land surveying by a Professional Land Surveyors

Pre-82 RCE-S = allegations relating to the practice of land surveying by a Pre-82 Civil Engineer

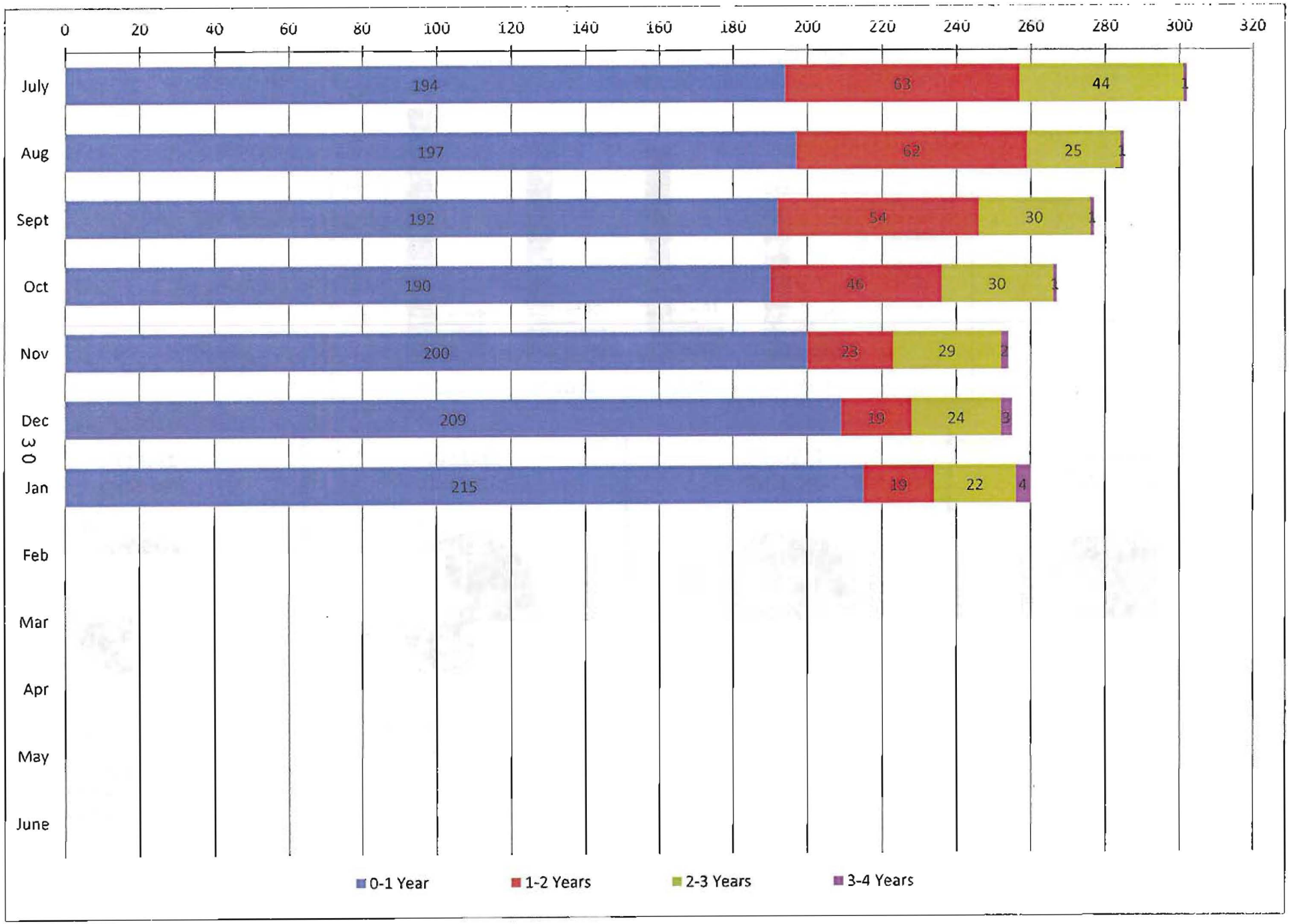
CE = allegations relating to the practice of civil engineering by a Civil Engineer

EE = allegations relating to the practice of electrical engineering by an Electrical Engineer

ME = allegations relating to the practice of mechanical engineering by a Mechanical Engineer

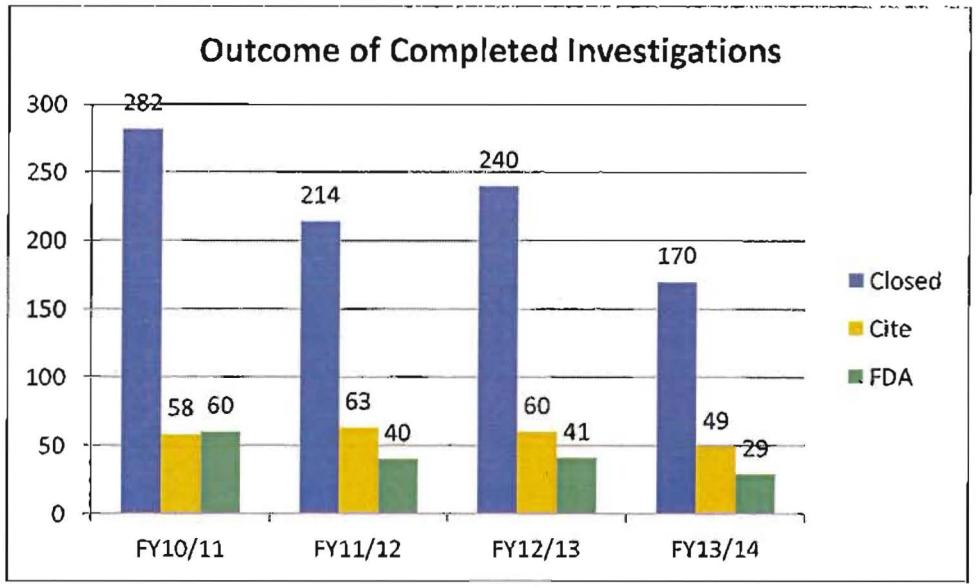
Other = allegations relating to the practice of any other discipline of engineering by a licensee in the specific discipline (i.e., traffic engineering by a Traffic Engineer)

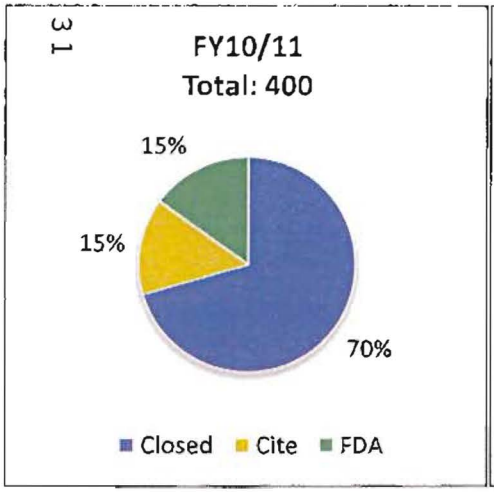
Aging of Open (Pending) Complaint Investigation Cases
FY13/14

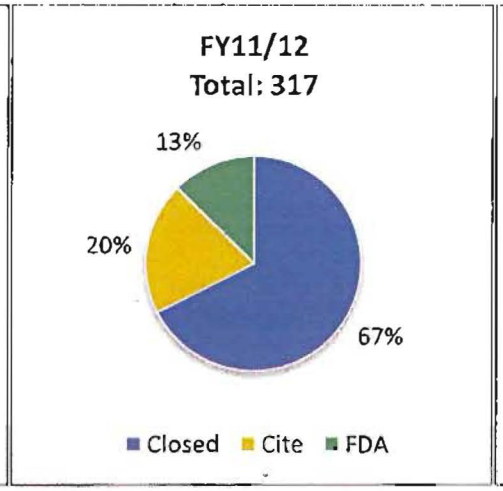


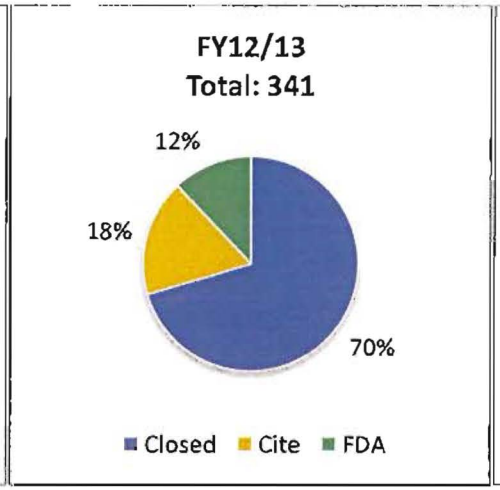
PELS ENFORCEMENT PROGRAM

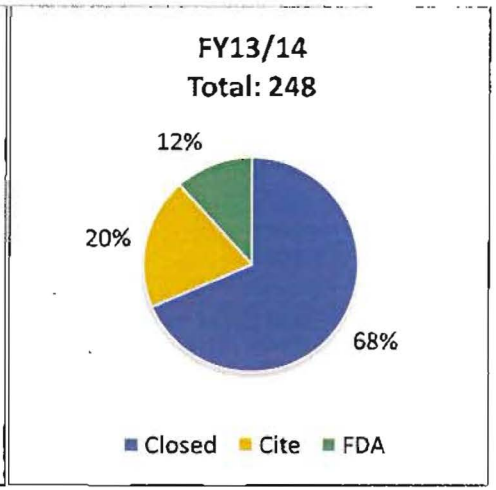
Outcome of Completed Investigations











NOTE: FY13/14 statistics are through January 31, 2014

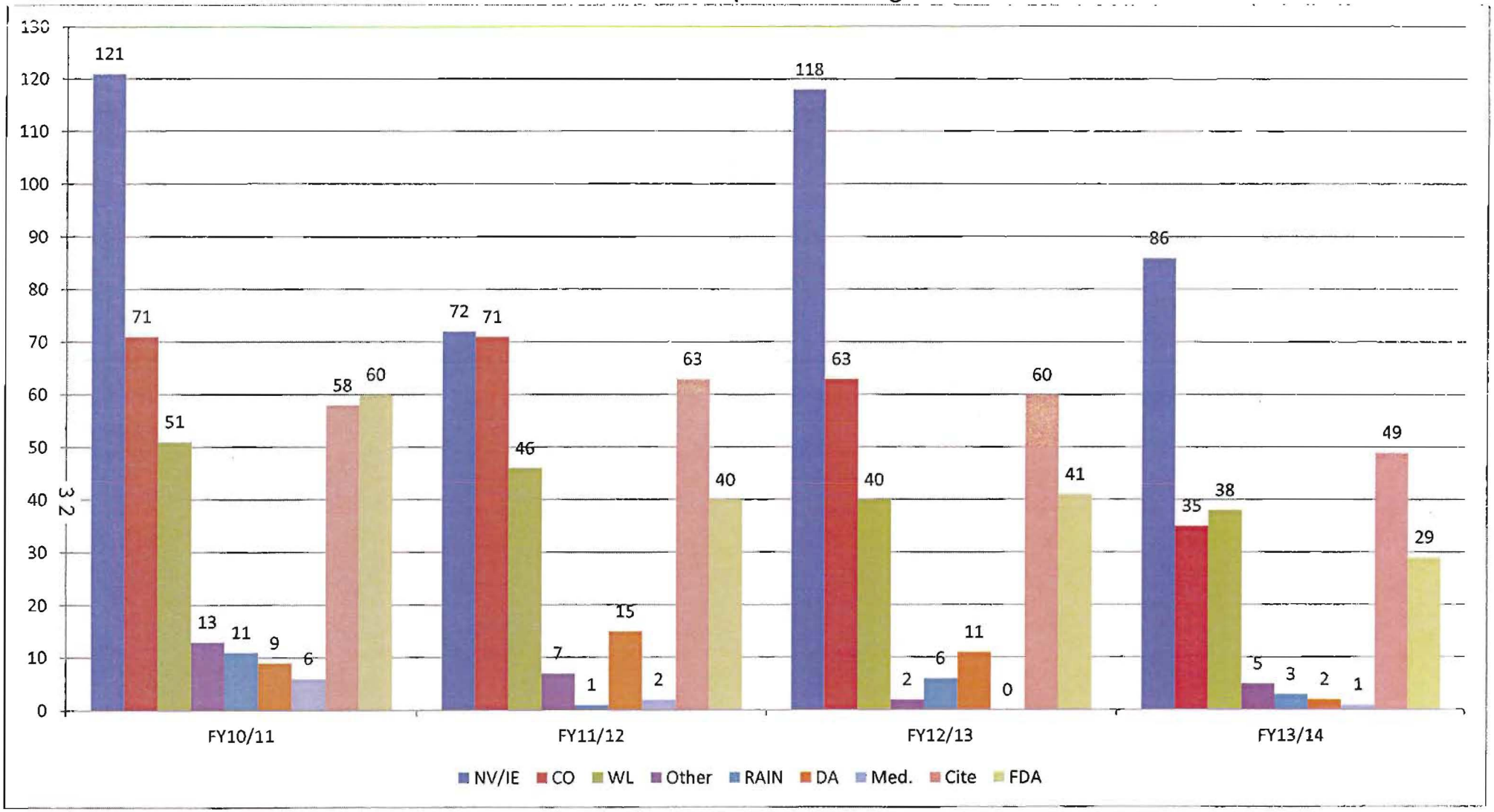
Closed = Closed with No Action Taken, includes the categories listed on the next page.

Cite = Referred for Issuance of Citation

FDA = Referred for Formal Disciplinary Action

PELS ENFORCEMENT PROGRAM

Outcome of Completed Investigations



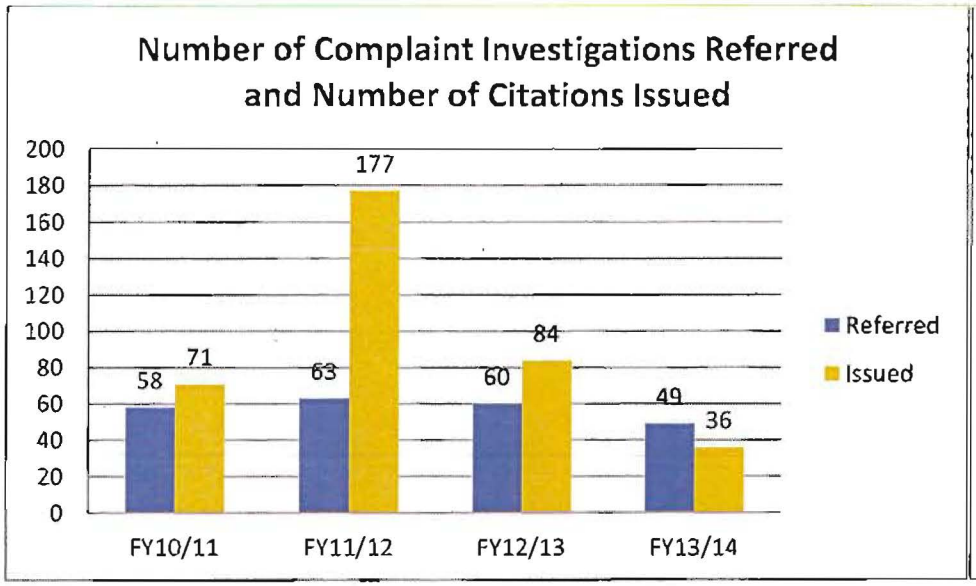
NOTE: FY13/14 statistics are through January 31, 2014

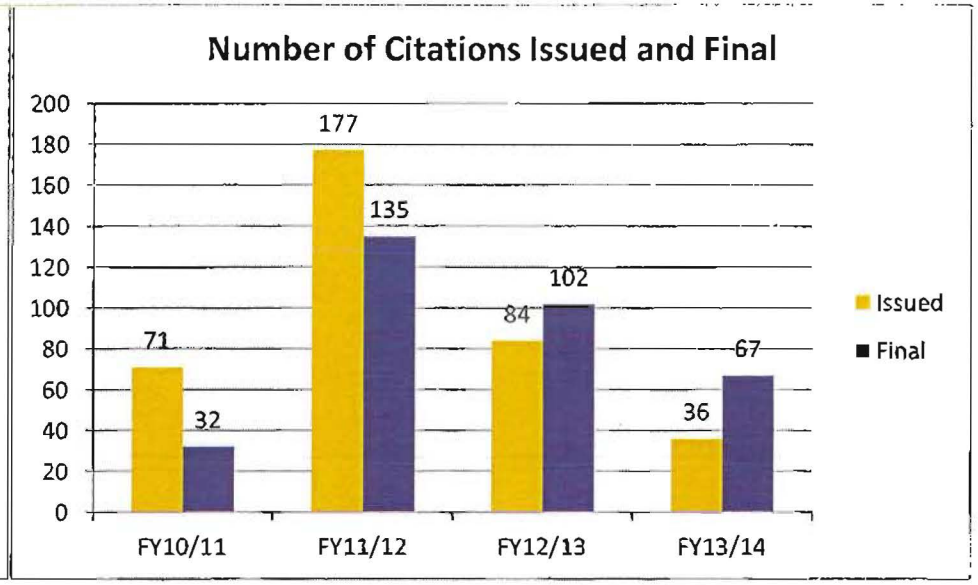
Closed = Closed with No Action Taken, includes the categories listed below:

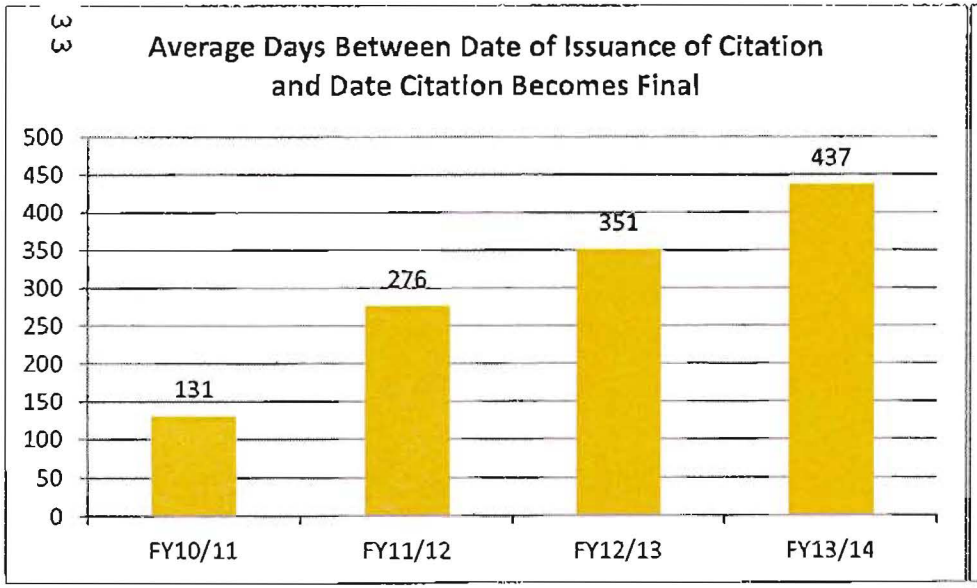
- NV/IE = No Violation/Insufficient Evidence
- CO = Compliance Obtained
- WL = Warning Letter
- Other = Other Reason for Closing Without Action (e.g., subject deceased)
- RAIN = Resolved After Initial Notification
- DA = Referred to District Attorney with Request to File Criminal Charges
- Med. = Mediated
- Cite = Referred for Issuance of Citation
- FDA = Referred for Formal Disciplinary Action

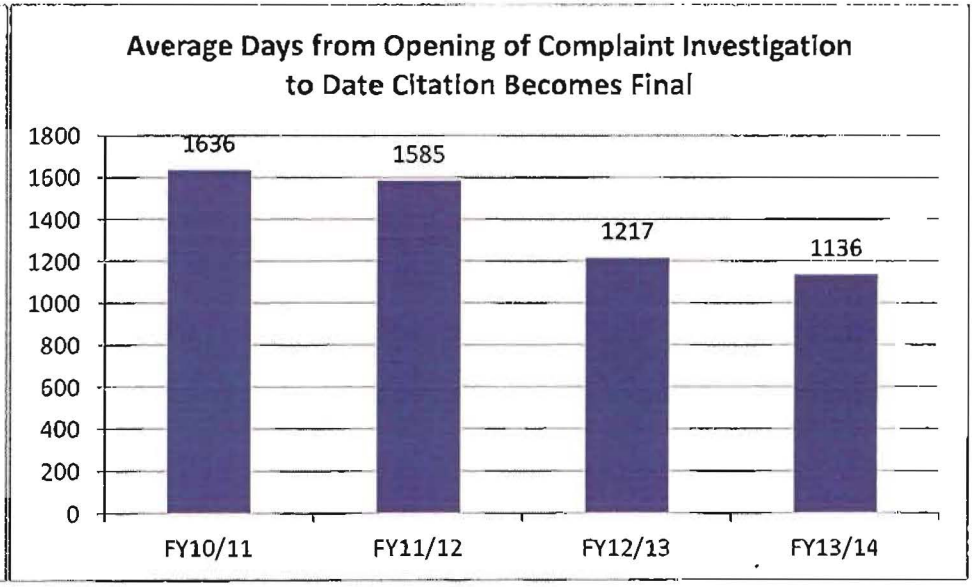
PELS ENFORCEMENT PROGRAM

Citations (Informal Enforcement Actions)







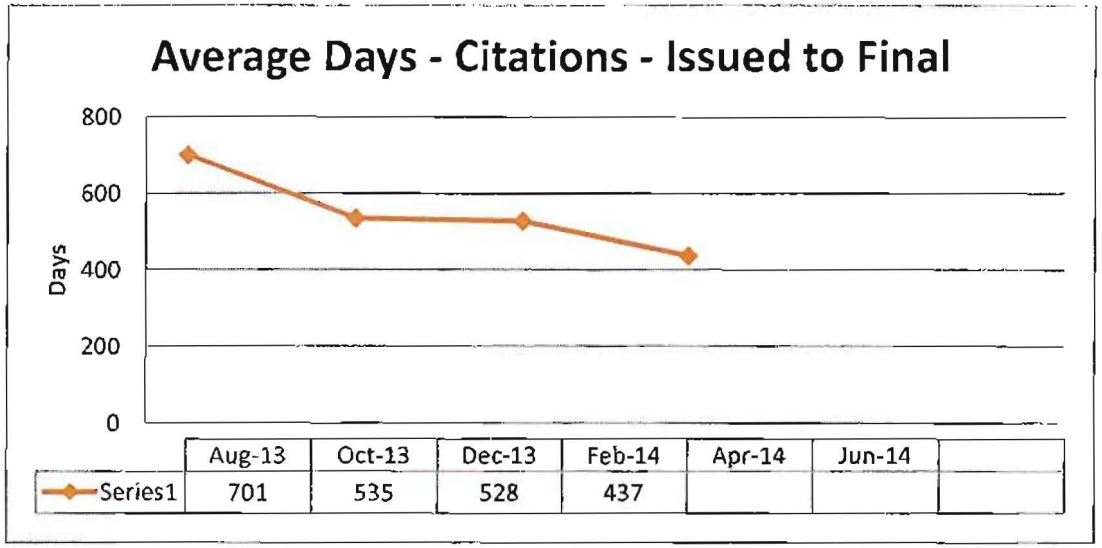


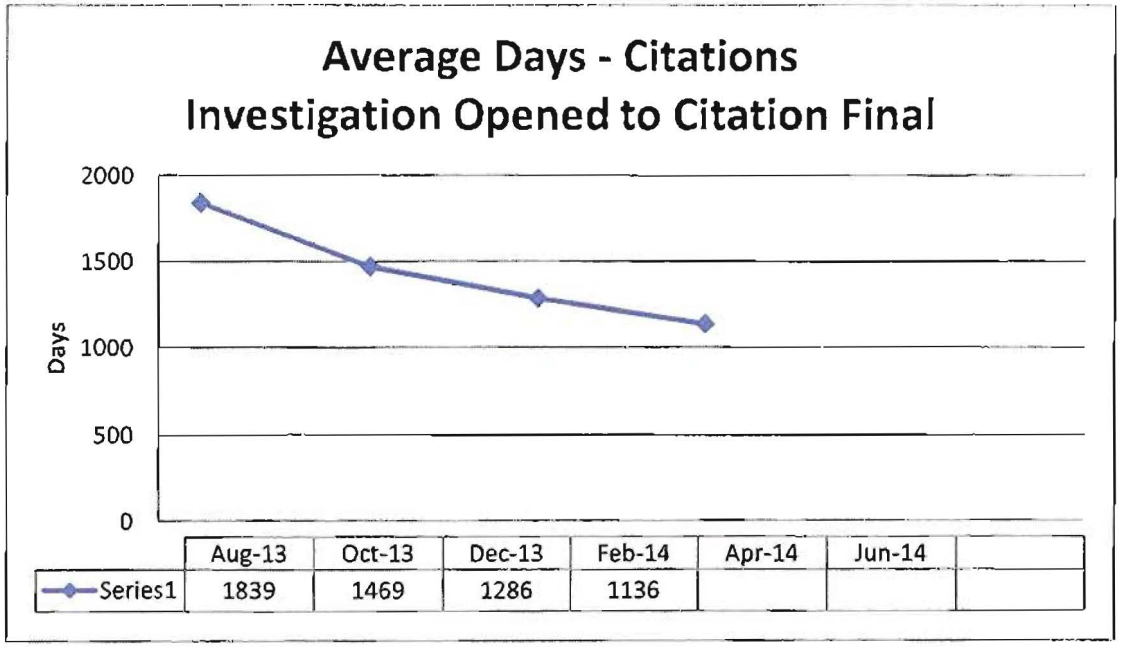
NOTE: FY13/14 statistics are through January 31, 2014

PELS ENFORCEMENT PROGRAM

Citations (Informal Enforcement Actions)

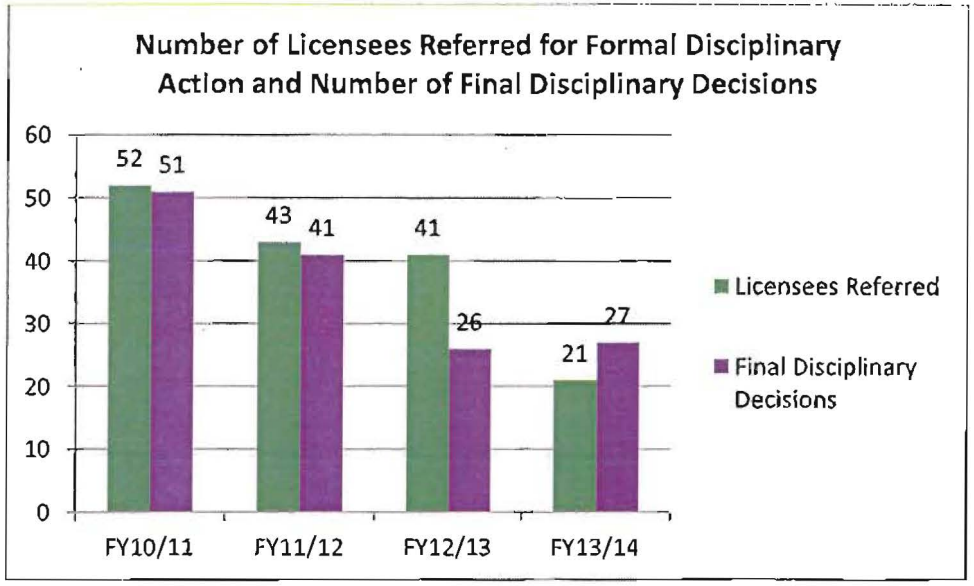
Percentage Change of Aging Based on Board Meeting Dates

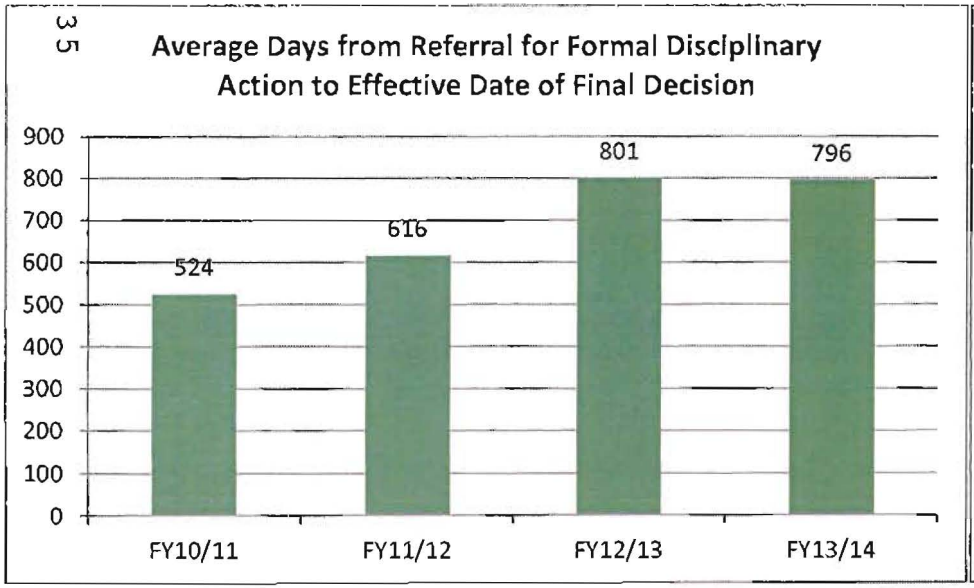


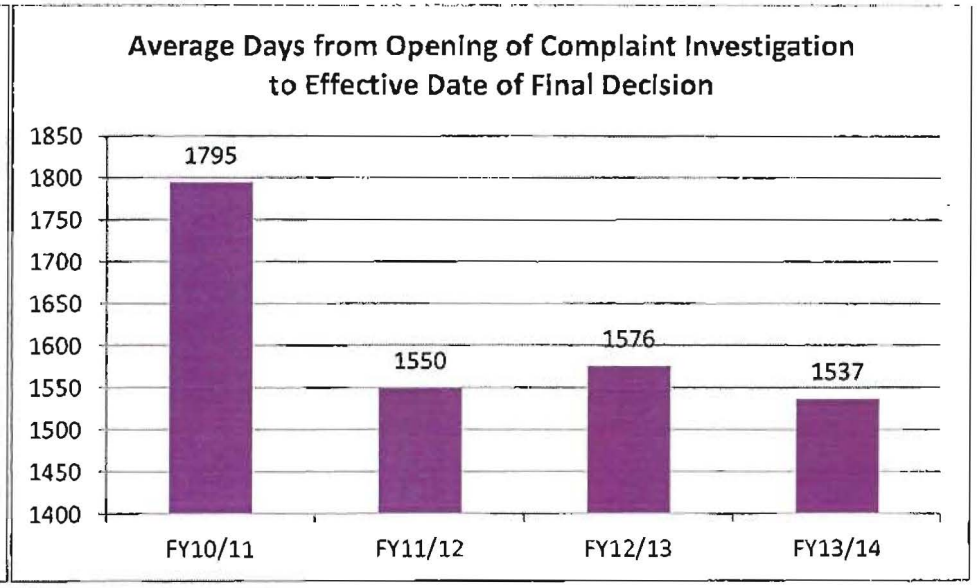


PELS ENFORCEMENT PROGRAM

Formal Disciplinary Actions Against Licensees





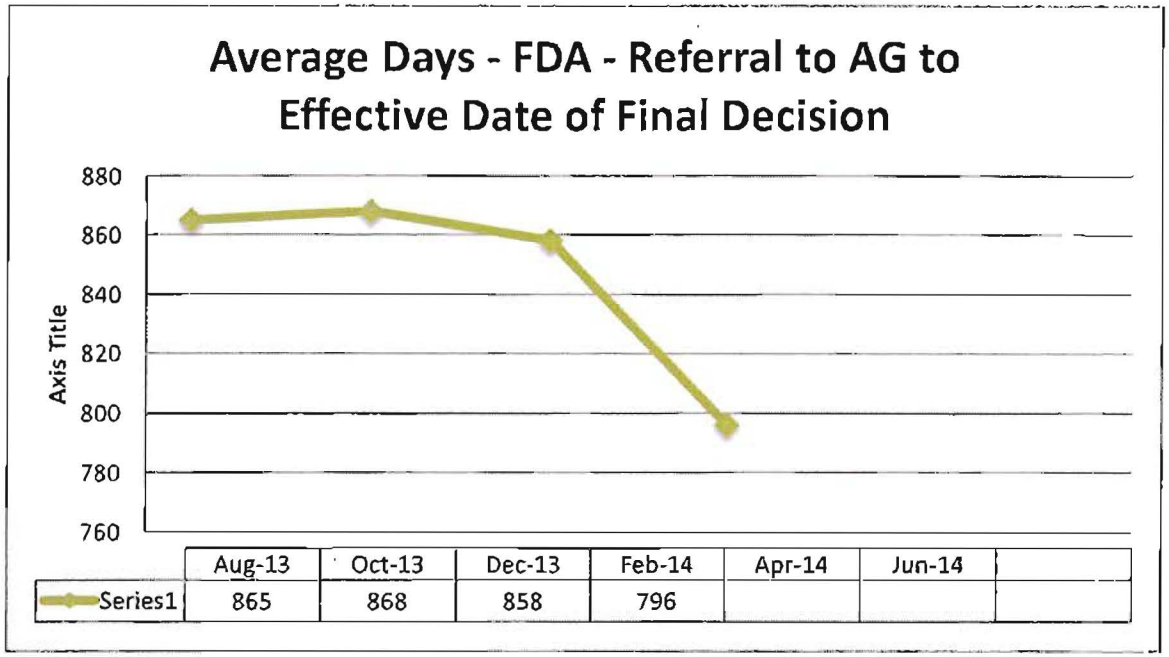


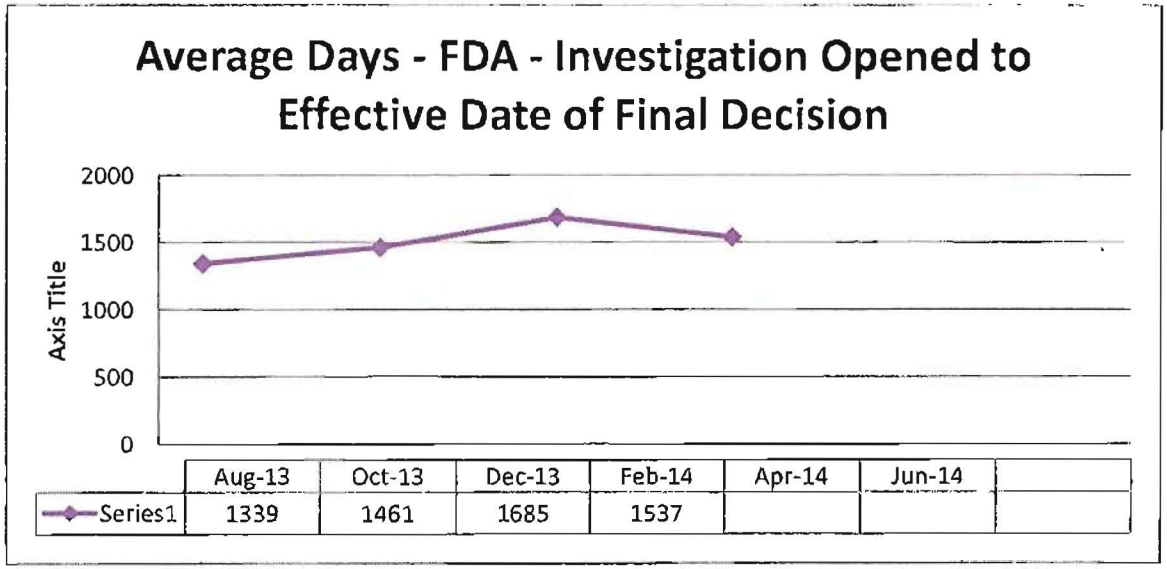
NOTE: FY13/14 statistics are through January 31, 2014

PELS ENFORCEMENT PROGRAM

Formal Disciplinary Actions Against Licensees

Percentage Change of Aging Based on Board Meeting Dates

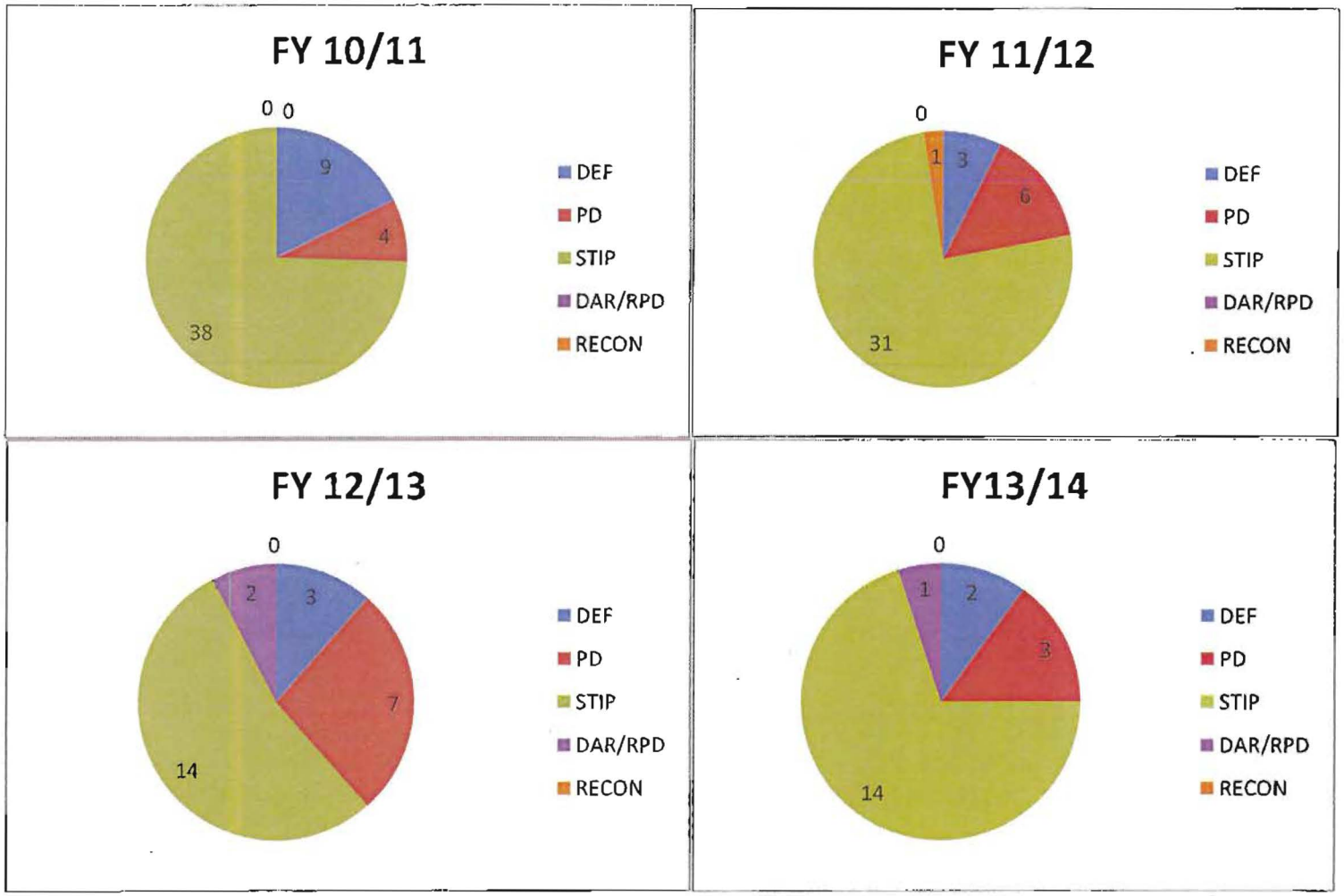




PELS ENFORCEMENT PROGRAM

Formal Disciplinary Actions Against Licensees

Types of Decisions



NOTE: FY13/14 statistics are through January 31, 2014

DEF = Default Decision

PD = Proposed Decision

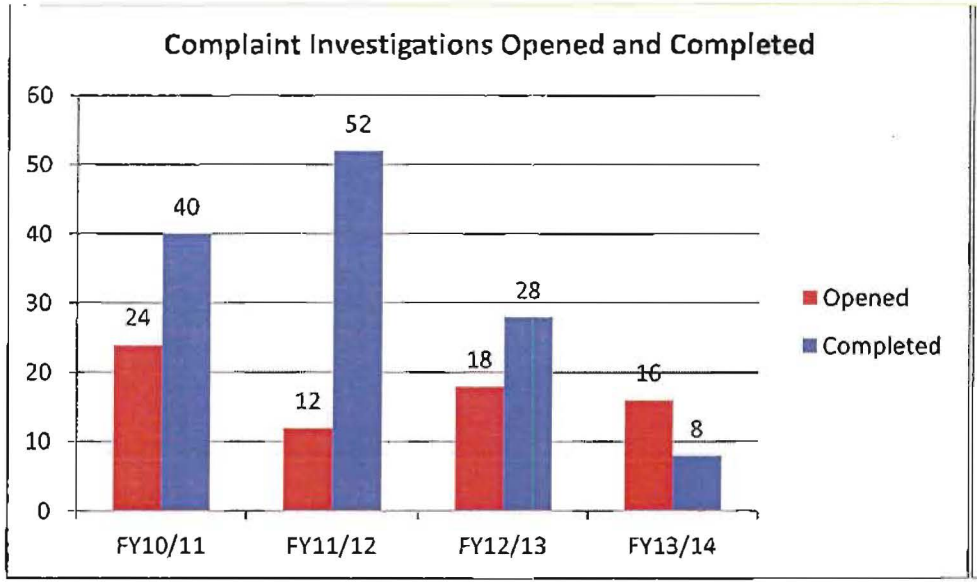
STIP = Stipulated Settlement

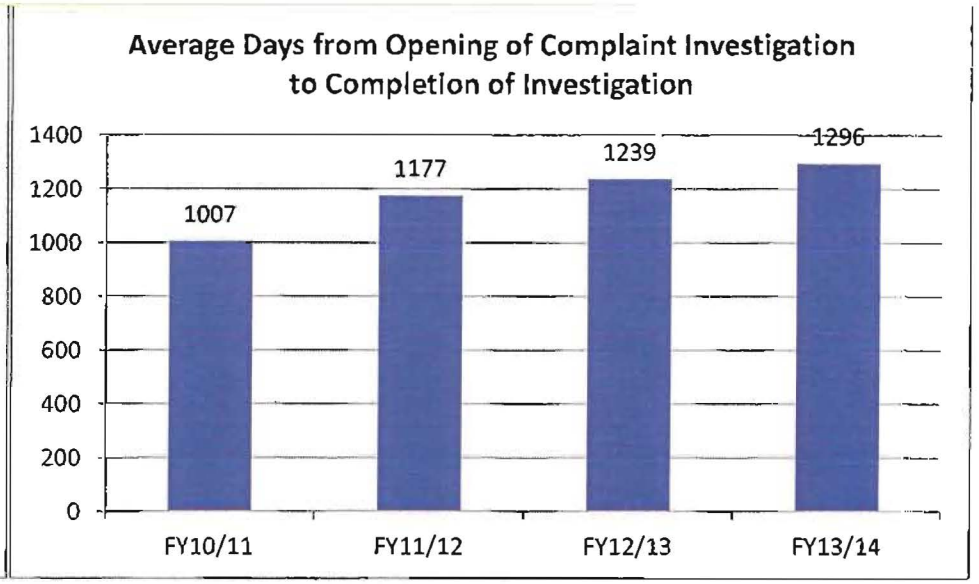
DAR/RPD = Decision After Rejection of Proposed Decision/Reduction of Order of Proposed Decision

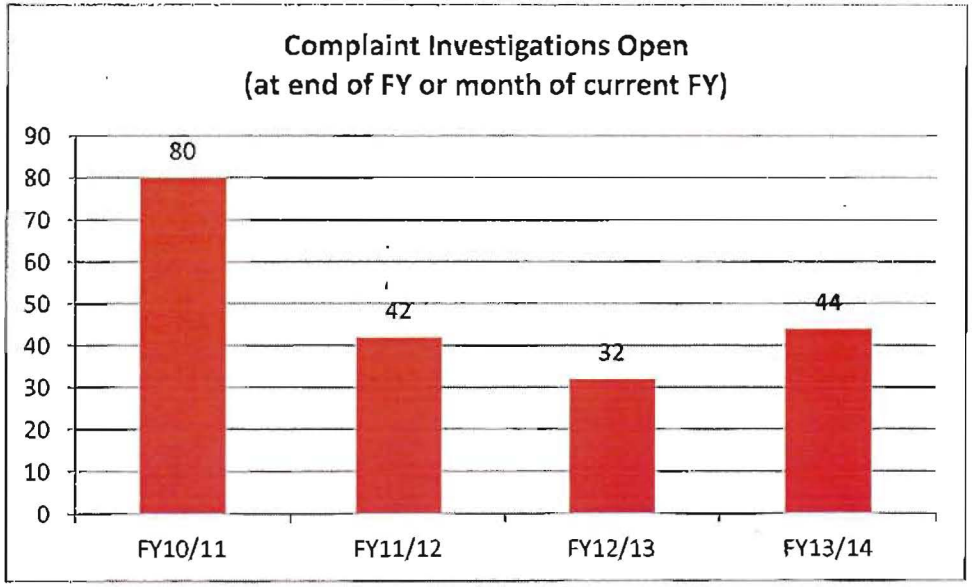
RECON = Modification of Default Decision or Proposed Decision after Petition for Reconsideration

G&G ENFORCEMENT PROGRAM

Complaint Investigation Phase



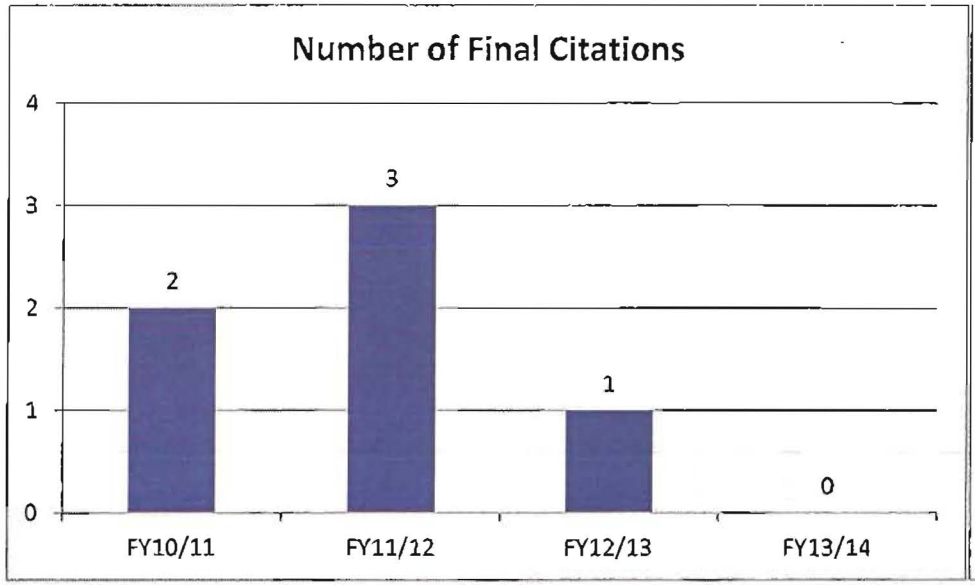


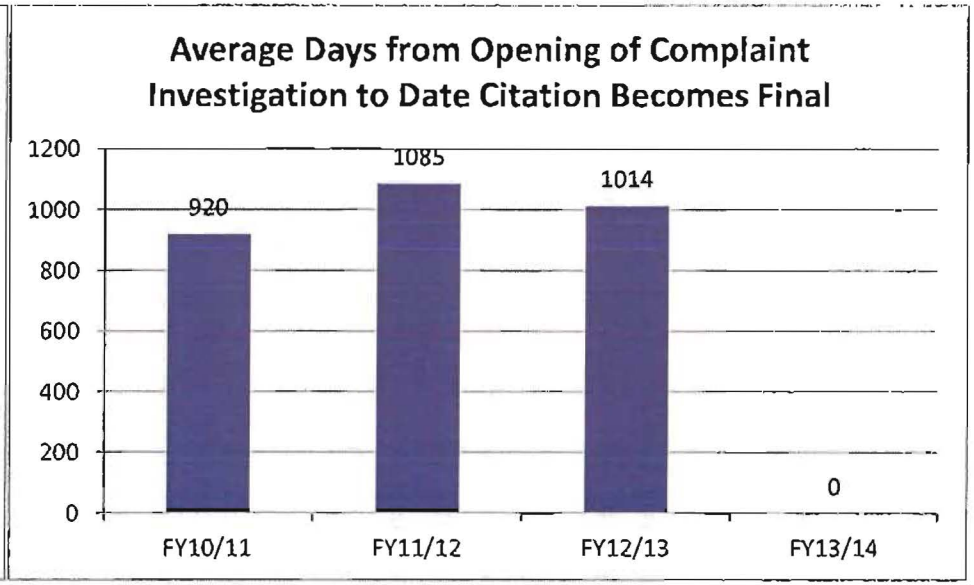


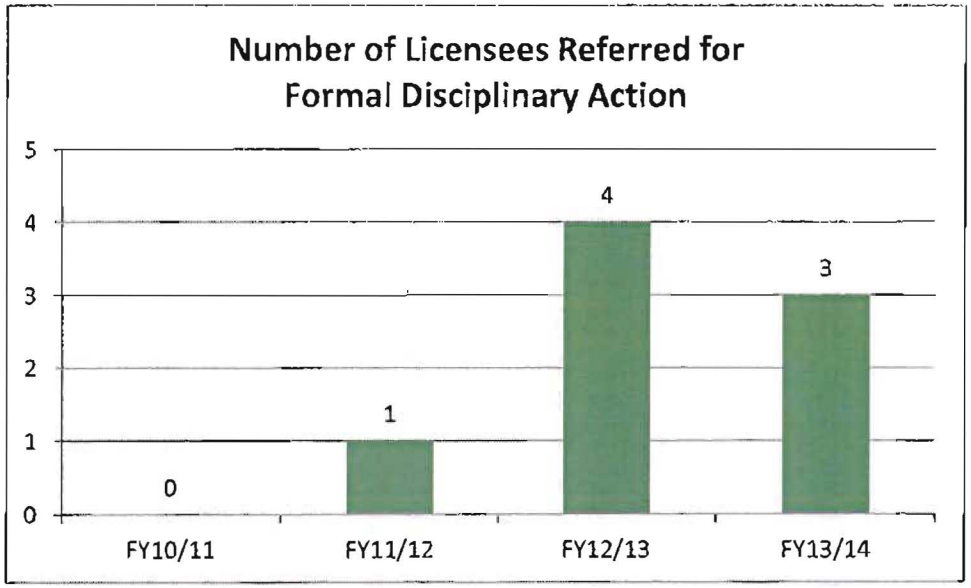
NOTE: FY13/14 statistics are through January 31, 2014

G&G ENFORCEMENT PROGRAM

Citations (Informal Enforcement Actions) and Formal Disciplinary Actions against Licensees







NOTE: FY13/14 statistics are through January 31, 2014

Item IV B. Investigative Timeline Goals

After evaluating the Administrative Task Force (ATF) comments / recommendations and reviewing all investigations currently exceeding 12 months in term, staff has determined the following general steps to be utilized by the Board's enforcement staff towards systemically and efficiently managing investigative workload:

1. Achieving an overall goal of 12 months maximum for investigation tasks
2. Implementation of effective monitoring procedures (internal)
3. Implementation of effective monitoring procedures (external, i.e., DOI, AG, Expert, etc.)
4. Realignment of duties for licensed staff to maximize effectiveness of internal expertise
5. Update Expert recruitment process / training

In addition, staff evaluation included a review of DCA's Consumer Protection Enforcement Initiative (CPEI) and how that effort corresponded with BPELSG's self-initiated goals.

Background – CPEI is a comprehensive effort that DCA launched in 2009-10 to overhaul the enforcement process at the healing arts boards. This was necessary due to the systematic problems embedded in the enforcement process at some of these boards which have pushed the timeline for investigation and prosecution of licensee violation cases to an average of three years. The overall goal was to reduce the overall enforcement process from an average of 36 months to an average of 12 (investigation portion) to 18 (including AG / OAH hearings) months for these boards.

In summary, the findings of this effort determined that three primary areas needed to be addressed, Administrative improvements; staffing and IT resources; and legislative changes. Implementation of these goals is largely dependent upon the success of the BreEZe implementation, state budget condition, and the legislative environment.

At BPELSG, we have elected to initially pursue a more internal approach that intends to make more effective use of existing resources (internal and external) while systematically revising our processes towards an overall goal of achieving a maximum of 12 months for the investigation portion.

V. EXAMS/LICENSING

A. Update on Fall 2013 Exams
B. 2014 Exam Development Schedule
C. Spring 2014 Exams
D. Proposal to Post Sample CBT Questions for State Exams on the Board's Website
E. Approval of New Test Plan Specifications for the CSE, CEG, and CHG exams

2014 Exam Development Schedule

The following schedule is for all development meetings effective January 1, 2014.

* Office of Professional Examination Services (OPES)
2420 Del Paso Road, Suite 265, Sacramento, CA 95834
**Board for Professional Enginners, Land Surveyors and Geologists
2535 Capitol Oaks Drive, Sacramento, CA 95833

**LAND SURVEYOR	
January 15-16, 2014 IW	June 24-25, 2014 FT
February 4-5, 2014 IW	July 22-23, 2014 IW
March 4-5, 2014 IW	August 5-6, 2014 IW
March 25-26, 2014 IW	August 19-20, 2014 IW
April 8-9, 2014 IW	Sept 9-10, 2014 IW
April 29-30, 2014 IW	Sept 30-Oct 1, 2014 IR
May 20-21, 2014 IR	Dec 9-10, 2014 FT

**GEOTECHNICAL	
February 19-20,2014 IW	
March 11-13, 2014 IW	
May 13-14, 2014 IR	
June 10-11, 2014 FT	

**CIVIL	
February10-11,2014 IW	
March 18-19, 2014 IR	
April 16-17, 2014 IW	
May 7-8, 2014 IR	
June 3-4, 2014 IW	
July 15-16, 2014 FR	
FT TBD	

*TRAFFIC	
January 8-9, 2014 IW	
February 12-13, 2014 IR	
March 19-20, 2014 IW	
April 16-17, 2014 IR	
May 7-8, 2014 EC	
May 14-15, 2014 PT	
November 19-20, 2014 PS	

*CALIFORNIA GEOLOGIST	
January22-23,2014IW/IR	
April 16, 2014 PS	
May 20-21, 2014 IW/IR	
June 3-4, 2014 EC/IR	

*CERTIFIED ENGINEERING GEOLOGIST	
February 10-11, 2014 RC	
March 6-7, 2014 IW/IR	
March 11-12, 2014 IW/IR	
May 13, 2014 EC	

*CERTIFIED HYDROGEOLOGIST	
January 28-29,2014IW/IR	
March 25-26, 2014 IW/IR	
April 29, 2014 EC	

*PROFESSIONAL GEOPHYSICIST	
February 25-26, 2014 PS/OA	
April 22-23, 2014 IR/IW	
June 10, 2014 EC	

LEGEND		LOCATION
IW = ITEM WRITING	RC = RECLASSIFICATION	** BOARD OFFICE
IR = ITEM REVIEW	PS = PASSING SCORE	* OPES
FT = FIELD TEST	EC = EXAM CONSTRUCTION	
FR = FORM REVIEW	PT = PRE-TEST	
OA = OCCUPATIONAL ANALYSIS		

BOARD FOR
PROFESSIONAL ENGINEERS,
LAND SURVEYORS, AND GEOLOGISTS

GEOLOGIST –
CALIFORNIA SPECIFIC
EXAMINATION OUTLINE
August 2013

I.	GENERAL GEOLOGY PRACTICE (45%): This content area assesses the candidate's knowledge of geologic investigation techniques, field practice, feasibility studies, health and safety risk assessment, and ethical standards of practice.		
	A. GENERAL GEOLOGY PRACTICES APPLIED TO CALIFORNIA (23%)		
	Job Tasks		***Associated Knowledge Statements***
1.	Collect, analyze, and interpret available California geological and geophysical data, maps, sections, and reports.	1.	Knowledge of various sources (e.g., governmental, academic, commercial) for current and historical information (including maps) regarding California geology.
		2.	Knowledge of procedures for analyzing various types of available data and information related to California geology.
2.	Prepare, analyze, and interpret logs derived from California borings, trenches, and test pits.	3.	Knowledge of ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System) related to geology.
		4.	Knowledge of ASTM D422 Standard Test Method for Particle-size Analysis of Soils related to geology.
3.	Identify, map, and evaluate geologic, geomorphic, and seismic hazards.	5.	Knowledge of Seismic Hazards Mapping Act related to geology.
		12.	Knowledge of California mineralogy and associated hazards.
		13.	Knowledge of California rocks and soils and their associated hazards (e.g., landslides, liquefaction, expansion).
4.	Develop feasibility studies of mitigation and remediation recommendations.	6.	Knowledge of procedures for geological feasibility studies (e.g., viability, cost-benefit, impact).

B. HEALTH, SAFETY, AND PROFESSIONAL ETHICS (22%)			
	Job Tasks		***Associated Knowledge Statements***
5.	Plan and design fieldwork programs for geological investigations, ensuring health and safety protection of workers, the public, and the environment.	7.	Knowledge of Cal/OSHA regulations (e.g., trenching and shoring) related to field geology.
6.	Assess risks to human health and safety, as well as to the environment, associated with geology projects.	8.	Knowledge of procedures for assessing health and safety risks associated with geology projects.
		9.	Knowledge of California Health and Safety Code, Division 20 Miscellaneous Health and Safety hazardous waste statutes related to the practice of geology.
		10.	Knowledge of California Code of Regulations, Title 22, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste related to geology.
		14.	Knowledge of distribution of naturally occurring toxic substances (e.g., asbestos, mercury, radon) in California.
7.	Conduct professional work in compliance with ethical standards and legal requirements.	11.	Knowledge of Business and Professional Code Section 12.5 related to geologists.

II.	CALIFORNIA GEOLOGY (7%): This content area assesses the candidate's knowledge of the associations and distributions of rocks, faults, stratigraphic relations, tectonic features, and related hazards found in California.		
	Job Tasks		***Associated Knowledge Statements***
9.	Plan sedimentologic and stratigraphic investigations in California and evaluate results.	15.	Knowledge of basic California sedimentology, stratigraphy, and paleontology.
10.	Plan geomorphic investigations in California and evaluate results.	16.	Knowledge of California geomorphic provinces and their associated geological processes and hazards.
11.	Plan structural and tectonic investigations in California and evaluate results.	17.	Knowledge of California geological units and structural features.
		18.	Knowledge of California tectonic framework.
12.	Evaluate earthquake mechanisms, faulting, and paleoseismic history, as well as their related hazards.	19.	Knowledge of CGS Note 42, Fault Rupture Hazard Zones in California.
		20.	Knowledge of fault systems in California and their associated hazards.
		21.	Knowledge of California history of major earthquakes and probability of future occurrences.
		22.	Knowledge of procedures for identifying surface and subsurface faults.
		23.	Knowledge of Alquist-Priolo Zoning Act.
		24.	Knowledge of CGS Note 31, Faults and Earthquakes in California.

III.	APPLIED GEOLOGY PRACTICE (48%): This content area assesses the candidate's knowledge of hydrogeology, environmental geology, engineering geology, mining geology, and energy resource development applied to California. It focuses on the major State issues in each subarea of geologic practice as well as State laws, regulations, and guidelines related to geology.		
	A. HYDROGEOLOGY (18%)		
	Job Tasks		*Associated Knowledge Statements*
13.	Plan California hydrogeological investigations and evaluate results.	25.	Knowledge of procedures for planning and evaluating hydrogeological investigations.
		26.	Knowledge of California Statutory Water Rights Law related to geology.
		27.	Knowledge of California Water Code related to geology.
		28.	Knowledge of Porter-Cologne Water Quality Control Act (California Water Code, Division 7 Water Quality) related to geology.
14.	Evaluate California water resources, assess aquifer yield, and determine sustainability.	29.	Knowledge of major California groundwater basins, their characteristics (e.g., recharge), and issues related to their management.
15.	Design and develop California groundwater supply, monitoring, observation, extraction, production, injection, and cathodic protection wells.	30.	Knowledge of California Well Standards 74-90 and 74-81.
		31.	Knowledge of the scope of practice for California C-57 Well Driller licensees.
		32.	Knowledge of methods and procedures for preventing well cross-contamination.
16.	Manage and protect California groundwater resources.	33.	Knowledge of methods and procedures for managing and protecting groundwater resources in California.
		34.	Knowledge of seawater intrusion locations in California and related management issues.
17.	Plan and manage the decommissioning of various types of wells in California.	35.	Knowledge of various drilling methods and their application to California geologic conditions.

B. ENVIRONMENTAL GEOLOGY (18%)			
	Job Tasks		***Associated Knowledge Statements***
18.	Plan environmental geologic investigations and evaluate results.	36.	Knowledge of procedures for planning and evaluating environmental geologic investigations.
		37.	Knowledge of ASTM E2247 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property related to the practice of geology.
		38.	Knowledge of ASTM E1527 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process related to the practice of geology.
		39.	Knowledge of Preliminary Endangerment Assessment (PEA) Guidance Manual for hazardous waste sites related to geology.
19.	Develop, manage, and protect surface water resources in California.	40.	Knowledge of California State agencies that regulate water, their procedures, and their resources related to geology.
		41.	Knowledge of geologic factors applied to the development, management, and protection of surface water resources in California.
20.	Plan sampling programs for water, soil, and soil vapor to assess hazards and risks.	42.	Knowledge of California Health and Safety Code Division 104, Part 12 Drinking Water related to geology.
		43.	Knowledge of ASTM E1903 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process related to geology.
		44.	Knowledge of ASTM E2600 Standard Guide for Vapor Encroachment Screening on Property involved in Real Estate Transactions related to geology.
		45.	Knowledge of the fate and transport of chemicals in the vadose and saturated zones.
		46.	Knowledge of methods and procedures for conducting water, soil, and soil vapor tests.
		47.	Knowledge of Leaking Underground Fuel Tank (LUFT) Manual guidelines related to geology.

B. ENVIRONMENTAL GEOLOGY (18%)			
Job Tasks		***Associated Knowledge Statements***	
21.	Remediate surface water and groundwater resources in California.	48.	Knowledge of methods and procedures for remediating surface water and groundwater resources.
		49.	Knowledge of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) process for cleaning up hazardous waste sites.

C. ENGINEERING GEOLOGY (9%)			
Job Tasks		***Associated Knowledge Statements***	
22.	Plan engineering geology investigations and evaluate results.	50.	Knowledge of procedures for planning and evaluating engineering geology investigations.
		51.	Knowledge of procedures for seismological investigations to identify earthquake hazards and fault creep.
		52.	Knowledge of CGS Note 48, Engineering Checklist.
		53.	Knowledge of California Building Code related to geology.
		54.	Knowledge of procedures for identifying and characterizing mass wasting (e.g., landslides, rock fall, soil creep).
23.	Evaluate geologic factors concerning flood control and prevention in California.	55.	Knowledge of geologic factors applicable to the design and construction of flood control systems and water resources infrastructure.
24.	Provide geological recommendations for engineering design, site development, land use, and watershed management in California.	56.	Knowledge of forestry practices for watershed management in California.
		57.	Knowledge of methods for ground improvement (e.g., grouting, lime treatment, geo-textiles).
		58.	Knowledge of Department of Toxic Substances Control (DTSC) requirements for construction and monitoring of landfills related to geology.
		59.	Knowledge of CCR Title 27, Division 2, Chapter 3 Standards for Construction of Waste Management Units related to geology.
25.	Develop programs for geologic, geomorphic, and seismic hazard mitigation in California.	60.	Knowledge of coastal processes (e.g., bluff erosion, sea level rise) and associated hazards.
		61.	Knowledge of methods and procedures for mitigation of various geologic, geomorphologic, and seismic hazards.
		62.	Knowledge of CGS Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards.
26.	Develop programs for land and watershed restoration in California.	63.	Knowledge of methods and procedures for land and watershed restoration.

D. ENERGY RESOURCES AND MINING GEOLOGY (3%)			
Job Tasks		***Associated Knowledge Statements***	
31.	Plan exploration, development, and production of energy resources in California.	68.	Knowledge of distribution of energy resources (e.g., oil, gas, geothermal) in California.
33.	Provide recommendations for the design of energy development operations in California.	70.	Knowledge of geologic design considerations for energy development operations.
34.	Provide recommendations for the closure, reclamation, and restoration of energy operations in California.	71.	Knowledge of procedures for geological evaluation of the closure, reclamation, and restoration of energy operations.
30.	Provide recommendations for the closure, reclamation, and restoration of mineral extraction operations in California.	67.	Knowledge of procedures for geological evaluation of the closure, reclamation, and restoration of mineral extraction operations in California.

BOARD FOR
PROFESSIONAL ENGINEERS,
LAND SURVEYORS, AND GEOLOGISTS

CERTIFIED ENGINEERING GEOLOGIST
EXAMINATION OUTLINE
August 2013

I. PROJECT PLANNING (21%): This area assesses the candidate's knowledge of developing an approach to project investigation. It includes the preliminary evaluation of geologic and environmental hazards.			
	Job Task		***Associated Knowledge Statements***
1.	Evaluate regional and site-specific geologic conditions that could impact site development based on a review of available published and unpublished geologic data.	7.	Knowledge of effects of historical land uses on current site conditions.
		17.	Knowledge of sources of published and unpublished imagery, historical photographs, and geologic and geotechnical information.
2.	Review preliminary project plans to evaluate potential impacts from adverse geologic conditions.	24.	Knowledge of techniques to interpret design information provided in grading plans.
3.	Review on- and off-site conditions, history, and usage to assess the potential presence of on-site environmental concerns.	9.	Knowledge of environmental and safety regulations pertaining to exploration and sampling of contaminated soil and groundwater.
		30.	Knowledge of chemical hazards from industrial, commercial, and mining operations.
4.	Prepare geologic models to depict existing subsurface conditions and proposed development.	21.	Knowledge of State guidelines for siting, designing, construction, and monitoring landfills and disposal sites.
		73.	Knowledge of geometric relationship between slopes and apparent dip of geologic structures.
5.	Define scope of engineering geologic investigations based on preliminary review of geologic data.	17.	Knowledge of sources of published and unpublished imagery, historical photographs, and geologic and geotechnical information.
		34.	Knowledge of field measurement techniques to collect geologic and geotechnical data.
6.	Select exploration techniques to evaluate surface and subsurface conditions.	1.	Knowledge of advantages and disadvantages of sampling and testing methods to evaluate engineering properties of earth materials.
7.	Conduct site reconnaissance to assess topography, access, and hazards.	10.	Knowledge of field evidence and land modifications and past use.
8.	Select locations and depths for subsurface exploration or underground construction.	20.	Knowledge of State guidelines (e.g., CGS Note 48, California Field Act, etc.) for investigating and siting schools, hospitals, and essential services.

I. PROJECT PLANNING (21%): This area assesses the candidate's knowledge of developing an approach to project investigation. It includes the preliminary evaluation of geologic and environmental hazards.			
	Job Task		***Associated Knowledge Statements***
9.	Evaluate potential physical hazards and constraints related to drilling or trenching activities.	6.	Knowledge of capabilities of different drilling and trenching equipment.
		13.	Knowledge of safety hazards associated with subsurface exploration or underground construction.
		23.	Knowledge of State regulations (e.g., Cal/OSHA) to safeguard personnel engaged in excavations, trenches, and earthwork.
		81.	Knowledge of methods to depict engineering geologic conditions in cross-sections.
10.	Determine regulatory permits and requirements for field exploration and monitoring.	12.	Knowledge of State, federal, and local regulatory requirements for permitting, construction, and field exploration.
12.	Determine regulatory requirements for testing and reporting.	133.	Knowledge of California Building Code related to engineering geology testing and reporting.
		8.	Knowledge of State requirements for engineering geologic studies and reports (e.g., CGS Special Publication 117A, CGS Notes 42, 44, and 48, etc.).

II. DATA COLLECTION (19%): This area assesses the candidate's knowledge of field mapping and subsurface exploration. It includes the collection of geologic data for the assessment of physical characteristics and engineering properties of earth materials.			
A. Surface Mapping (5%)			
	Job Task		***Associated Knowledge Statements***
13.	Assess distribution of collapsible, compressive, and expansive soils.	88.	Knowledge of methods to evaluate and mitigate expansive soil and bedrock.
		108.	Knowledge of methods to mitigate impact of adverse soil conditions (e.g., compressible, collapsible, heave, organic)
14.	Analyze and interpret remote sensing data from published sources, field instrumentation, and public networks.	48.	Knowledge of techniques to collect topographic survey data.
		59.	Knowledge of the application of remote sensing methods.
15.	Map geomorphology, lithology, geologic structures, geologic hazards, and hydrogeologic features.	11.	Knowledge of geologic and geomorphic conditions depicted in topographic and geologic maps.
		41.	Knowledge of methods to describe geologic structures.

B. SUBSURFACE EXPLORATION (8%)			
	Job Task		***Associated Knowledge Statements***
17.	Log soil stratigraphy and rock in paleoseismic trenches.	49.	Knowledge of techniques to log exploratory trenches and large-diameter borings.
18.	Log geologic and engineering properties of earth materials in exploratory borings and excavations.	42.	Knowledge of methods to describe lithologic and pedologic properties of earth materials.
		46.	Knowledge of standardized soil and rock classification systems.
		85.	Knowledge of soil pedogenesis for interpretation of subsurface conditions.
19.	Determine the water sampling strategy for input into the engineering geologic model.	68.	Knowledge of methods to construct structure and groundwater contour maps.
20.	Determine methodology for measuring groundwater for civil engineering projects.	43.	Knowledge of methods to test groundwater.
21.	Determine sampling methods to obtain representative soil and rock samples for physical and laboratory testing.	54.	Knowledge of rock core logging and sampling techniques.
22.	Employ field geophysical methods (e.g., cone penetrometer) to obtain geologic and engineering properties of earth materials.	58.	Knowledge of the usage and installation of borehole instrumentation for geologic and hydrogeologic information.

C. SAMPLE AND TEST PROGRAM (6%)			
Job Task		***Associated Knowledge Statements***	
23.	Select soil and rock samples for physical and chemical laboratory testing.	44.	Knowledge of procedures for planning and evaluating environmental geologic investigations.
24.	Select water samples for chemical laboratory testing.	135.	Knowledge of methods and procedures to sample groundwater.
26.	Conduct hydrogeologic testing to measure aquifer characteristics.	36.	Knowledge of field and laboratory tests to evaluate hydrogeologic properties of earth materials.
27.	Measure physical and chemical properties of earth materials using tests.	34.	Knowledge of field measurement techniques to collect geologic and geotechnical data.
		39.	Knowledge of methods for testing of physical characteristics of earth materials.
28	Determine laboratory tests for measuring physical, engineering, and chemical properties of earth materials.	51.	Knowledge of tests to assess performance and durability of rock and aggregate materials.
		130.	Knowledge of foundation and retaining structure design and construction.

III. ENGINEERING GEOLOGIC EVALUATION (41%): This area assesses the candidate's knowledge of identifying and interpreting geologic conditions and their associated hazards and effects for civil engineering works.			
A. MODEL SUBSURFACE PROFILE (9%)			
	Job Task		***Associated Knowledge Statements***
30.	Prepare cross-sections to depict subsurface conditions for proposed developments.	73. 81.	Knowledge of geometric relationship between slopes and apparent dip of geologic structures. Knowledge of methods to depict engineering geologic conditions in cross-sections.
31.	Evaluate geologic structure, geomorphology, and hydrogeology from collected data.	60. 71.	Knowledge of characteristics of joints, fractures, shears, and rock fabric. Knowledge of fundamentals of geomorphology pertaining to geologic hazards.
32.	Interpret geophysical survey data to evaluate geologic structures, stratigraphy, and groundwater and subsurface conditions.	26.	Knowledge of geophysical methods, capabilities, and interpretation.
33.	Analyze and interpret the results of laboratory testing to estimate engineering geologic properties of earth materials.	46. 95.	Knowledge of standardized soil and rock classification systems. Knowledge of rock and soil mechanics.
34.	Analyze and interpret the results of laboratory testing to determine chemical properties of earth materials and groundwater.	97.	Knowledge of effects of corrosive earth materials on engineered structures.

B. GEOLOGIC HAZARDS AND EFFECTS (23%)			
Job Task		*Associated Knowledge Statements*	
36.	Evaluate effects of erosional processes on natural and graded areas.	53.	Knowledge of physical and chemical weathering processes of rock and soil.
		56.	Knowledge of erosional and depositional processes.
37.	Evaluate level of risk of slope instabilities on natural and graded areas.	67.	Knowledge of methods to evaluate mass wasting and surficial failures.
		78.	Knowledge of methods to analyze slope stability.
		80.	Knowledge of stereonet methods for slope stability and discontinuity analysis.
		86.	Knowledge of methods to analyze rockfall hazards.
		90.	Knowledge of landslide types and characteristics.
		93.	Knowledge of landslide displacement analysis.
40.	Estimate settlement potential of site using field and laboratory data.	82.	Knowledge of methods to evaluate settlement potential.
41.	Estimate potential impact of subsidence or rebound on development.	123.	Knowledge of techniques to evaluate impact of land subsidence.
42.	Evaluate remote sensing images and aerial photographs to identify geomorphic and other features that indicate areas of potential geologic hazards.	50.	Knowledge of techniques to obtain and use topographic and geologic data in Geographic Information Systems.
		59.	Knowledge of the application of remote sensing methods.
43.	Estimate potential impact of volcanic hazards on-site.	20.	Knowledge of State guidelines (e.g., CGS Note 48, California Field Act, etc.) for investigating and siting schools, hospitals, and essential services.
		77.	Knowledge of the use and review of aerial photographs.

B. GEOLOGIC HAZARDS AND EFFECTS (23%)			
	Job Task		*Associated Knowledge Statements*
44.	Estimate the potential for expansive soils or bedrock to impact sites.	32.	Knowledge of how expansive soils impact engineering structures.
45.	Determine flooding potential at project sites.	94.	Ability to interpret flood hazard maps.
46.	Identify earth materials (e.g., asbestos, chert, radon, clay, pyrite, etc.) that may be detrimental to projects and/or human health.	65.	Knowledge of engineering properties of earth materials used in construction.
		66.	Knowledge of potential hazards of naturally occurring asbestos.
		91.	Knowledge of potential for mineral alteration or chemical properties of earth materials to affect engineered projects.
47.	Determine impact of coastal processes and related geohazards on coastal sites.	115.	Knowledge of techniques to mitigate bluff instability and erosion along rivers and coastlines.
59.	Evaluate site conditions relative to seismic ground motion and site response.	76.	Knowledge of methods for deterministic and probabilistic seismic hazard analysis.
		84.	Knowledge of procedures to evaluate earthquake ground motion parameters.
61.	Evaluate fault surface rupture hazards based on historical seismicity, paleoseismicity, and field evidence.	14.	Knowledge of methods of relative age dating of geologic materials.
		74.	Knowledge of geomorphic and field evidence of fault rupture.
		92.	Knowledge of methods to evaluate seismic hazards from historical records.
62.	Evaluate the potential for coseismic ground deformation.	69.	Knowledge of field evidence of seismic shaking.
63.	Evaluate the potential for earthquake-induced geologic hazards.	79.	Knowledge of methods to assess regional seismicity.
		111.	Knowledge of relationship between ground shaking and slope stability.
66.	Determine potential impact of tsunamis and seiches on sites.	29.	Knowledge of seismic hazards and related zones.

B. GEOLOGIC HAZARDS AND EFFECTS (23%)			
	Job Task		***Associated Knowledge Statements***
78.	Identify areas of active and inactive faulting.	38.	Knowledge of methods for determining relative age of geomorphic features.
		62.	Knowledge of regional fault systems and tectonic frameworks.
		63.	Knowledge of fault impacts on site development.

C. EARTHWORK EVALUATION (4%)			
	Job Task		***Associated Knowledge Statements***
49.	Estimate rippability of rock materials for the determination of excavation alternatives.	99.	Knowledge of grading and excavation techniques and equipment capabilities.
		120.	Knowledge of the effects of rock properties on excavation methods.
50.	Assess impact of on-site earthwork and groundwater modifications on stability of adjacent properties.	16.	Knowledge of potential adverse effects from construction on adjacent and surrounding developments.
52.	Estimate earthwork shrinkage and bulking factors.	64.	Knowledge of engineering factors that affect fill compaction and performance.

D. GROUNDWATER CONDITIONS AND EFFECTS (5%)			
Job Task		*Associated Knowledge Statements*	
53.	Estimate hydraulic parameters for dewatering and stability.	102.	Knowledge of methods for dewatering.
54.	Analyze field and laboratory test data to identify aquifer physical characteristics.	36.	Knowledge of field and laboratory tests to evaluate hydrogeologic properties of earth materials.
55.	Analyze groundwater piezometric data to estimate gradient and flow direction.	68.	Knowledge of methods to construct structure and groundwater contour maps.
57.	Evaluate impact of natural and artificial water recharge on slope stability.	116.	Knowledge of techniques to mitigate effects of slope instability.
58.	Evaluate distribution and occurrence of groundwater with respect to project sites.	21.	Knowledge of State guidelines for siting, designing, constructing, and monitoring landfills and disposal sites.
		105.	Knowledge of methods for on-site sewage and waste water disposal.

IV. DESIGN AND CONSTRUCTION (19%): This area assesses the candidate's geologic knowledge of developing recommendations for site design, grading, mitigation, and construction. It assesses the ability to evaluate conformance to design specifications. It also assesses the knowledge of documentation and reporting of as-graded conditions, including post-construction monitoring.

A. GRADING AND REMEDIAL PLAN DEVELOPMENT (13%)

	Job Task		*Associated Knowledge Statements*
35.	Evaluate geologic factors affecting gross and surficial slope stability of natural and graded slopes.	78.	Knowledge of methods to analyze slope stability.
		90.	Knowledge of landslide types and characteristics.
51.	Assess the stability of temporary excavations.	23.	Knowledge of State regulations (e.g., Cal/OSHA) to safeguard personnel engaged in excavations, trenches, and earthwork.
		107.	Knowledge of methods to design and construct cut and fill slopes.
68.	Design earthwork concepts and specifications for remedial grading.	28.	Knowledge of earthwork construction practices and equipment.
		96.	Knowledge of applications for geosynthetic materials.
		101.	Knowledge of methods and materials for soil reinforcement.
		104.	Knowledge of methods for in-place ground improvement.
		130.	Knowledge of foundation and retaining structure design and construction.
69.	Design systems to monitor groundwater fluctuations, flow, and quality.	68.	Knowledge of methods to construct structure and groundwater contour maps.
70.	Design subsurface drainage systems to control groundwater during and after construction.	61.	Knowledge of conditions and methods to control groundwater.
		102.	Knowledge of methods for dewatering.
71.	Provide mitigation plans for contaminated soil and groundwater during construction.	89.	Knowledge of methods to identify and interpret evidence of soil contamination.
		110.	Knowledge of methods to remediate contaminated soil.

A. GRADING AND REMEDIAL PLAN DEVELOPMENT (13%)			
Job Task		*Associated Knowledge Statements*	
72.	Review grading and development plans to evaluate conformance with geologic recommendations.	5.	Knowledge of State, federal, and local regulations pertaining to grading requirements.
		115.	Knowledge of techniques to mitigate bluff instability and erosion along rivers and coastlines.
73.	Establish setback distances of proposed structures from active faults.	22.	Knowledge of State (e.g., Alquist-Priolo Earthquake Fault Zoning Act) and local guidelines pertaining to setbacks of structures near active and potentially active faults.
		129.	Knowledge of methods for mitigating fault displacement impacts.
75.	Determine methods for mitigating temporary and permanent slope instability.	75.	Knowledge of influence of groundwater on slope stability.
		86.	Knowledge of methods to analyze rockfall hazards.
		106.	Knowledge of methods of rock slope stabilization.
		107.	Knowledge of methods to design and construct cut and fill slopes.
		131.	Knowledge of methods to mitigate mass wasting and surficial failures.
76.	Determine mitigation methods for potentially liquefiable soils.	134.	Knowledge of State requirements related to site mitigation.
		87.	Knowledge of methods to evaluate liquefaction or lateral spreading.
		114.	Knowledge of techniques to mitigate impact of liquefaction.

B. CONSTRUCTION MONITORING (6%)			
Job Task		*Associated Knowledge Statements*	
39.	Evaluate ground movement monitoring and survey data for subsidence, settlement, heave, and site suitability.	27.	Knowledge of types of monitoring instrumentation.
		108.	Knowledge of methods to mitigate impact of adverse soil conditions (e.g., compressible, collapsible, heave, organic).
77.	Document geologic conditions encountered during grading and construction.	21.	Knowledge of State guidelines for siting, designing, constructing, and monitoring landfills and disposal sites.
		98.	Knowledge of geologic factors that affect various foundation types.
		113.	Knowledge of techniques to address unforeseen geologic conditions during construction.
80.	Implement slope monitoring systems to evaluate slope movement during and after construction.	37.	Knowledge of measurement techniques to assess and interpret ground movement.
81.	Prepare design and post-construction reports in compliance with State and local regulations.	3.	Knowledge of California Building Code related to the design of engineering geology projects and associated post-construction reporting.
		126.	Knowledge of State regulations pertaining to stormwater collection, retention, and dispersion.
		128.	Knowledge of methods and materials to mitigate erosion.
82.	Design and install surface settlement monitoring systems to evaluate post-construction settlement.	127.	Knowledge of methods to mitigate differential settlement.
		132.	Knowledge of techniques to mitigate impact of land subsidence.

BOARD FOR
PROFESSIONAL ENGINEERS,
LAND SURVEYORS, AND GEOLOGISTS

CERTIFIED HYDROGEOLOGIST (CHG)
EXAMINATION OUTLINE
August 2013

Certified Hydrogeologist Examination Outline

I. PROJECT PLANNING (36%): This area assesses the candidate's knowledge of establishing objectives and developing a scope of work for hydrogeologic projects.

A. Problem Definition (17%)

	Job Task		*Associated Knowledge Statement*
1.	Determine needs for water supply planning and water quality protection.	1.	Knowledge of major components of groundwater supply systems.
2.	Assess potential immediate threat to environment or human health associated with hydrogeology-related investigations.	16.	Knowledge of the effects of groundwater on soil and rock stability.
		18.	Knowledge of risks to human health and the environment from exposure to various chemicals.
4.	Examine potential off-site/on-site contaminant sources.	98.	Knowledge of the effects of natural and human activities on groundwater quality and quantity.
5.	Determine potential coastal issues related to seawater intrusion.	93.	Knowledge of dynamic relationship between fresh water and saline water in aquifers.
		154.	Knowledge of the effects of barometric pressure and ocean tides.
6.	Assess needs for water supply restoration/remediation.	118.	Knowledge of the purposes of different types of wells.
7.	Determine legal and regulatory requirements for contamination assessments.	5.	Knowledge of effects of federal, State, and local water quality standards on evaluation of water quality data.
		24.	Knowledge of the standards of practice for site investigation and remediation.
9.	Evaluate potential sources of water supply.	40.	Knowledge of water supply management requirements.
10.	Determine potential impact of water resource on designated beneficial use.	4.	Knowledge of "beneficial use" as designated by State law.
11.	Investigate consequences of contamination on land ownership, liability, land values, and water rights.	112.	Knowledge of the types and sources of contaminants associated with various categories of land use and industrial processes.
12.	Assess issues and consequences of groundwater management decisions on existing/future land and water uses.	181.	Knowledge of potential impacts from long-term land use and water management plans.
14.	Develop and refine a conceptual hydrogeologic model.	3.	Knowledge of the hydrologic cycle.
		54.	Knowledge of data gap analysis.
		150.	Knowledge of the elements of preparing a conceptual site model.

A. Problem Definition (17%)			
Job Task		***Associated Knowledge Statement***	
15.	Develop an investigation approach to achieve project objectives.	10. 11.	Knowledge of the effects of existing site conditions on field studies. Knowledge of the advantages and disadvantages of different site investigation methods.

B. Project Approach (19%)			
	Job Task		***Associated Knowledge Statement***
16.	Determine need to control groundwater flow direction or head.	106.	Knowledge of the principles of groundwater flow pertaining to confined and unconfined aquifers under pumping and steady state conditions.
17.	Develop a site health and safety plan.	27.	Knowledge of environmental and safety regulations pertaining to exploration and sampling of contaminated soil, soil gas, and groundwater.
		35.	Knowledge of exposure pathways for risk assessment and worker health/safety.
18.	Examine consequences of changes to water table or potentiometric surface.	81.	Knowledge of the use of climate data for hydrogeologic studies.
		155.	Knowledge of the sources and quality of climate data related to hydrogeologic analysis.
20.	Formulate preliminary well design based on existing site data.	70.	Knowledge of techniques for well placement.
		71.	Knowledge of the purposes of different types of wells.
21.	Develop schedules and locations for soil and/or groundwater remediation.	96.	Knowledge of procedures for scheduling and locating remediation systems.
22.	Determine type, collection methods, and quantity of data needed to achieve project objectives.	13.	Knowledge of the advantages and disadvantages of different sampling methods.
		17.	Knowledge of procedures to validate hydrogeologic, hydrologic, and water quality data.
		19.	Knowledge of the advantages and disadvantages of laboratory methods to determine physical properties and chemical concentrations of soil, rock, water, gas, and waste samples.
		32.	Knowledge of the advantages and disadvantages of field testing methods for vapor intrusion.
		46.	Knowledge of aquifer testing methods and procedures, including their uses and limitations.
23.	Develop a groundwater investigation work plan.	85.	Knowledge of techniques to obtain water, soil, and gas samples.
		183.	Knowledge of regional and local hydrogeological conditions that may constrain investigation approaches.

B. Project Approach (19%)			
	Job Task		***Associated Knowledge Statement***
24.	Develop a groundwater monitoring program.	15.	Knowledge of various field methods, including their limitations, for measuring water quality parameters.
		23.	Knowledge of groundwater monitoring program elements.
		184.	Knowledge of groundwater procedures for measuring groundwater levels, free product thickness, and field water quality parameters from wells.
25.	Determine well development, purge, and sampling methods/equipment.	14.	Knowledge of the advantages and disadvantages of different well purging methods.
26.	Assess water resource management alternatives.	103.	Knowledge of techniques and procedures to evaluate water supply alternatives.
27.	Determine permitting requirements for regulatory compliance.	6.	Knowledge of various regulatory agencies that have jurisdictional authority over water (e.g., supply, quality, rights).
		22.	Knowledge of permit requirements for hydrogeologic investigations, water supply systems, and treatment systems.
		179.	Knowledge of on-site wastewater disposal.
28.	Determine regulatory requirements for testing and reporting.	66.	Knowledge of State and federal laws, regulations, and policies pertaining to groundwater testing and reporting.
30.	Select subsurface exploration methods and equipment approaches for anticipated geology.	12.	Knowledge of the advantages and disadvantages of various drilling methods for different geologic settings.
		57.	Knowledge of geologic logging methods.

II. DATA COLLECTION (17%): This area assesses the candidate's knowledge of surface and subsurface exploration. It includes documentation of groundwater conditions.			
Job Task		*Associated Knowledge Statement*	
31.	Assess current conditions and site features in the field.	29.	Knowledge of field evidence of land modification and past use.
		61.	Knowledge of site reconnaissance and field mapping techniques.
32.	Examine water resource boundaries and zones.	136.	Knowledge of the effects of boundary conditions on water levels during pumping.
33.	Evaluate the physical condition and construction of existing wells.	186.	Knowledge of procedures for well maintenance and rehabilitation.
34.	Evaluate lithology, stratigraphy, structure, changes in moisture, water levels, flow, and other properties based on field observations to interpret groundwater conditions.	41.	Knowledge of the relationship between geologic formations and their respective hydrostratigraphic units and characteristics.
		72.	Knowledge of techniques and equipment to measure water level in wells.
		86.	Knowledge of techniques to measure groundwater flow rates.
		89.	Knowledge of the limitations of field screening techniques for soil and groundwater samples.
35.	Map hydrogeologic features.	50.	Knowledge of characteristics of groundwater basins and depositional environments.
36.	Examine hydrogeologic structure from aerial photographs, remote sensing, and historical records.	2.	Knowledge of sources for hydrogeological data.
		26.	Knowledge of geologic and geomorphic conditions depicted in topographic and geologic maps.
		28.	Knowledge of sources for published and unpublished imagery and aerial photographs.
		30.	Knowledge of effects of historical land use on current site conditions.
		58.	Knowledge of interpretive techniques for aerial photographs and remote sensing imagery.

II. DATA COLLECTION (17%): This area assesses the candidate's knowledge of surface and subsurface exploration. It includes documentation of groundwater conditions.			
Job Task		***Associated Knowledge Statement***	
37.	Interpret surface/borehole geophysical and hydrogeologic testing to determine aquifer stratigraphy and characteristics.	60.	Knowledge of borehole geophysical investigation techniques.
		78.	Knowledge of techniques to measure in situ groundwater flow in wells.
		106.	Knowledge of the principles of groundwater flow pertaining to confined and unconfined aquifers under pumping and steady state conditions.
38.	Assess well performance.	43.	Knowledge of principles of well hydraulics.
		73.	Knowledge of techniques to measure well discharge and efficiency.
		80.	Knowledge of well bore storage and skin effects on aquifer test results.
46.	Obtain physical or chemical parameters from the laboratory to determine interaction between vadose zone and groundwater.	31.	Knowledge of the physical properties of chemicals migrating through the vadose zone.
		68.	Knowledge of methods to determine hydraulic properties of saturated and unsaturated earth materials.
48.	Apply quality control standards to the collection of data from well drilling, installation, development, or testing.	62.	Knowledge of procedures to decontaminate drilling equipment and sampling tools.
51.	Prepare boring logs and well construction details to illustrate subsurface conditions.	189.	Knowledge of techniques (e.g., boring logs) to illustrate subsurface conditions.

III. DATA EVALUATION AND FEASIBILITY STUDIES (34%): This area assesses the candidate's ability to interpret data from historic, field, and laboratory sources. It also assesses the candidate's knowledge of evaluating technical and economic feasibility of groundwater projects.

A. Data Interpretation (14%)

Job Task		*Associated Knowledge Statement*	
58.	Examine previous land uses/conditions and recharge/discharge areas from photographs, topographic maps, and other available historical sources.	98. 111. 152.	Knowledge of the effects of natural and human activities on groundwater quality and quantity. Knowledge of the effects of human-related modifications on subsurface drainage and groundwater flow conditions. Knowledge of land use and groundwater extraction.
59.	Interpret hydrogeologic boundaries, heterogeneity, and/or anisotropy from single- or multi-well tests.	41. 45. 136.	Knowledge of the relationship between geologic formations and their respective hydrostratigraphic units and characteristics. Knowledge of principles of groundwater and well hydraulics. Knowledge of the effects of boundary conditions on water levels during pumping.
61.	Interpret available subsurface information for hydrogeologic analysis by reviewing existing documents, records, maps, and well logs.	42. 77. 110. 112.	Knowledge of basin hydrostratigraphy and aquifer characteristics. Knowledge of the similarities and differences in fractured and porous groundwater flow systems. Knowledge of the natural and human-related causes and effects of land subsidence. Knowledge of the types and sources of contaminants associated with various categories of land use and industrial processes.
62.	Assess surface water/groundwater interactions.	59.	Knowledge of the interaction between groundwater and surface water.
63.	Prepare hydrologic inventory and water balance.	49. 134.	Knowledge of methods for evaluating changes in groundwater storage. Knowledge of techniques and procedures used for water budget evaluations.
64.	Characterize nature and extent of contamination based on analysis of samples.	187. 67.	Knowledge of the standards of practice for site investigation and remediation. Knowledge of the classification systems for soil and rock.
67.	Interpret trends from water level and/or quality data.	79. 92.	Knowledge of procedures for assessing background conditions in soil and groundwater. Knowledge of statistical methods to evaluate soil or groundwater data.

A. Data Interpretation (14%)			
Job Task		***Associated Knowledge Statement***	
68.	Prepare graphs and illustrations of hydrogeologic data.	76.	Knowledge of graphical and tabular techniques for analysis and presentation of hydrogeologic data.
116.	Assess potential for non-aqueous phase liquids.	184.	Knowledge of procedures for measuring groundwater levels, free product thickness, and field water quality parameters from wells.

B. Data Evaluation (10%)			
Job Task		***Associated Knowledge Statement***	
72.	Analyze infiltration/percolation data to calculate recharge rates and permeability.	190.	Knowledge of procedures for calculating recharge rates and permeability.
73.	Construct flow nets.	132.	Knowledge of methods to construct flow nets.
75.	Calculate hydraulic gradients from potentiometric maps.	125.	Knowledge of methods to determine groundwater flow directions and horizontal and vertical hydraulic gradients.
76.	Calculate hydraulic parameters from aquifer test data.	127.	Knowledge of methods to calculate groundwater flow rate and volume.
		129.	Knowledge of techniques to analyze aquifer test data.
		145.	Knowledge of analytical and numerical methods to determine hydraulic parameters for aquifers.
77.	Calculate fate and transport of contaminants in groundwater or vadose zones.	33.	Knowledge of unsaturated zone and vapor intrusion modeling principles, including chemical and physical properties of modeled constituents.
		34.	Knowledge of groundwater flow and solute transport modeling principles, including chemical and physical properties of modeled constituents.
		56.	Knowledge of the principles of vadose zone transport.
		113.	Knowledge of numerical models, including calibration, sensitivity analysis, and uncertainty analysis.
		115.	Knowledge of the chemical and biochemical transformation of organic and inorganic compounds.
78.	Prepare groundwater level/potentiometric and isoconcentration contour maps.	44.	Knowledge of hydraulic head distribution mapping.
80.	Evaluate hydrogeologic properties of engineered structures (e.g., containment walls, reactive barriers).	176.	Knowledge of hydrogeochemical effects on engineered structures.
82.	Characterize trends (e.g., well yields, water levels) for groundwater aquifer sustainability.	36.	Knowledge of methods for evaluation of available water supply and sustainable yield.
118.	Establish groundwater protection zones.	65.	Knowledge of State and federal laws, regulations, and policies pertaining to groundwater use and protection.
		185.	Knowledge of delineating wellhead protection areas.

C. Feasibility Studies (10%)			
Job Task		*Associated Knowledge Statement*	
83.	Evaluate remedial technology options.	99.	Knowledge of the advantages and disadvantages of soil and groundwater remediation systems.
84.	Estimate time frames for site remediation.	177.	Knowledge of methods to remediate contaminated soil and groundwater.
85.	Develop cleanup goals for soil or groundwater remediation.	105.	Knowledge of guidelines to establish cleanup goals.
86.	Develop criteria for a groundwater control/remediation system.	175.	Knowledge of comparative costs for hydrogeologic portions of remediation alternatives.
88.	Estimate potential impact of water resource development or use.	191.	Knowledge of procedures to estimate impact of water resource, development, or use.
89.	Estimate contaminant levels for risk assessment.	188.	Knowledge of exposure pathways for risk assessment.
90.	Evaluate intrinsic remediation, mass flux, and source zone depletion for remediation time frame estimates.	47.	Knowledge of principles and methods of natural attenuation.
		144.	Knowledge of mass flux calculations.
93.	Evaluate costs and benefits of various remediation (from passive to active) and water supply (from well reconditioning to new well fields) scenarios.	107.	Knowledge of methods to design and perform pilot tests for water supply or remediation.
94.	Evaluate potential impact of groundwater recharge on existing water quality.	153.	Knowledge of techniques to evaluate recharge rates.
95.	Evaluate potential impact of proposed new pumping on seawater intrusion.	109.	Knowledge of the effects of groundwater pumping on confined and unconfined aquifers.

IV. DESIGN, INSTALLATION, and IMPLEMENTATION (13%): This area assesses the candidate's knowledge of the design, operation, maintenance, and destruction of monitoring and water wells. It also assesses knowledge of the design of treatment and production systems.

Job Task		*Associated Knowledge Statement*	
100.	Design, install, and develop monitoring wells and piezometers.	51.	Knowledge of monitoring well (including piezometer) design, construction, development, and testing.
		64.	Knowledge of drilling techniques and construction practices for different types of wells and piezometers.
		160.	Knowledge of well construction materials that minimize impacts on water quality.
101.	Design, install, and develop vertical/horizontal groundwater production wells.	52.	Knowledge of supply well design, construction, development, and testing.
		63.	Knowledge of borehole drilling and well construction techniques to prevent cross-contamination.
		88.	Knowledge of techniques to select a filter pack and screen size based on sieve analysis.
117.	Design, install, and implement well rehabilitation programs.	119.	Knowledge of procedures for well maintenance and rehabilitation.
102.	Design monitoring plans for natural attenuation, aquifers, treatment and production systems, and waste management units.	100.	Knowledge of federal/State requirements pertaining to the investigation, location, and operation of waste disposal and treatment facilities.
		181.	Knowledge of potential impact from long-term land use and water management plans.
106.	Operate and maintain remedial systems.	165.	Knowledge of post-closure monitoring requirements and five-year remedy reviews for project sites.
107.	Develop plans for the destruction of wells and boreholes.	53.	Knowledge of well destruction requirements.
108.	Design dewatering or collection systems.	111.	Knowledge of the effects of human-related modifications on subsurface drainage and groundwater flow conditions.
109.	Design aquifer storage and recovery and/or groundwater replenishment systems.	38.	Knowledge of natural and artificial groundwater recharge.
110.	Design shallow collection systems for source or plume control.	177.	Knowledge of methods to remediate contaminated soil and groundwater.

IV. DESIGN, INSTALLATION, and IMPLEMENTATION (13%): This area assesses the candidate's knowledge of the design, operation, maintenance, and destruction of monitoring and water wells. It also assesses knowledge of the design of treatment and production systems.			
Job Task		***Associated Knowledge Statement***	
113.	Design site remediation systems.	25. 169.	Knowledge of the standards of practice for site remediation. Knowledge of well design criteria for vapor extraction wells.
115.	Design monitoring well networks to optimize remediation or water supply systems.	130.	Knowledge of methods to design well fields for groundwater production.

VI. APPROVAL OF DELINQUENT REINSTATEMENTS

VII. CONSIDERATION OF RULEMAKING PROPOSALS

A. Proposal to Amend Board Rules 416 and 3060 (16 CCR 416 and 3060) (Substantial Relationship Criteria)

B. Proposal to Amend Title 16, California Code of Regulations Sections 426.10, 426.14 and 426.50 (Qualifying Experience)

C. Update on Board Rules 475, 476, and 3065 (16 CCR 475, 476, and 3065) Code of Professional Conduct

D. Adoption of Proposed Amendments to (16 CCR section 3003 (b) and (e)) (Definitions of Engineering Geology and Professional Geophysical Work)

E. Adoption of Proposed Amendments to (16 CCR section 3005) (Retired Status Fee for Professional Geologists and Geophysicists)

416. Substantial Relationship Criteria.

For the purpose of denial, suspension, or revocation of the license of a professional engineer or a land surveyor pursuant to Division 1.5 (commencing with Section 475) of the Business and Professions Code, a crime or act shall be considered substantially related to the qualifications, functions, and duties of a professional engineer or land surveyor if, to a substantial degree, it evidences present or potential unfitness of a professional engineer or land surveyor to perform the functions authorized by his or her license in a manner consistent with the public health, safety, or welfare. Such crimes or acts shall include, but not be limited to, those involving the following:

(a) For professional engineers, any violations of the provisions of the Professional Engineers Act or aiding and abetting any person in such a violation;

(b) For land surveyors, any violations of the provisions of the Professional Land Surveyors' Act or aiding and abetting any person in such a violation;

(c) ~~A conviction of a crime~~ Crimes or acts arising from or in connection with the practice of professional engineering or land surveying~~.~~;

(d) Crimes or acts involving dishonesty, fraud, deceit, or theft with the intent to substantially benefit oneself or another or to substantially harm another;

(e) Crimes or acts involving physical violence against persons;

(f) Crimes or acts that indicate a substantial or repeated disregard for the health, safety, or welfare of the public.

Note: Authority cited: Sections 481, 6716 and 8710, Business and Professions Code. Reference: Sections 480, 481, 490, 493, 6706.3, 6710, 6732, 6775, 6779, 8780 and 8783, Business and Professions Code.

3060. Substantial Relationship Criteria.

For the purpose of denial, suspension, or revocation of the ~~registration~~ license of a professional geologist, specialty geologist, professional geophysicists~~,~~ or specialty geophysicists~~s~~ pursuant to Division 1.5 (commencing with Section 475) of the Business and Professions Code, a crime or act shall be considered substantially related to the qualifications, functions, and duties of a professional geologist, specialty geologist, professional geophysicists~~,~~ or specialty geophysicists~~s~~ if~~,~~ to a substantial degree~~,~~ it evidences present or potential unfitness of ~~such~~ a professional geologist, specialty geologist, professional geophysicist, or specialty geophysicists~~s~~ to perform the functions authorized by his or her ~~registration~~ license in a manner consistent with the public health, safety~~,~~ or welfare. Such crimes or acts shall include, but not be limited to, those involving the following:

(a) Any violations of the provisions of ~~Chapter 12.5 of Division 3 of the Business and Professions Code.~~ the Geologist and Geophysicist Act or aiding and abetting any person in such a violation;

(b) Crimes or acts arising from or in connection with the practice of professional geology or geophysics;

(c) Crimes or acts involving dishonesty, fraud, deceit, or theft with the intent to substantially benefit oneself or another or to substantially harm another;

(d) Crimes or acts involving physical violence against persons;

(e) Crimes or acts that indicate a substantial or repeated disregard for the health, safety, or welfare of the public.

Note: Authority cited: Sections 481 and 7818, Business and Professions Code. Reference: Sections 480, 481, 490, ~~and~~ 493, 7860, and 7863, Business and Professions Code.

Recommendation and Proposal to Amend
Title 16, California Code of Regulations sections 416 and 3060

At the August 28-29, 2013 Board Meeting there was a discussion regarding amending Title 16, California Code of Regulations sections 416 and 3060 regarding the Substantial Relationship Criteria used in the Board's enforcement cases.

At the conclusion of the discussion, a motion was made by the Board that directed staff to review the language that other Department of Consumer Affairs Boards have in place for their Substantial Relat onship Criteria regulation, and provide a recommendation to the Board based on that research.

Board staff reviewed the Substantial Relationship Criteria regulations of several different non-medical related Boards. It was determined that the language used by the Contractors State License Board was most applicable to the Board for Professional Engineers, Land Surveyors and Geologists. The proposed amendments to Title 16, California Code of Regulations sections 416 and 3060 add the following language that is used in the Contractors State License Board regulation:

- Crimes or acts involving dishonesty, fraud, deceit, or theft with the intent to substantially benefit oneself or another or to substantially harm another;
- Crimes or acts involving physical violence against persons;
- Crimes or acts that indicate a substantial or repeated disregard for the health, safety, or welfare of the public.

RECOMMENDED MOTION:
Board staff recommends that the Board approve the above proposal and direct staff to begin the formal rulemaking process to amend Title 16, California Code of Regulations sections 416 and 3060.

Recommendation and Proposal to Amend California Code of Regulations Sections 426.10, 426.14, & 426.50 (Qualifying Experience)

Board staff recommends amending California Code of Regulations Sections 426.10, 426.14, & 426.50 pertaining to qualification and experience requirements for Engineers.

For the following reasons, Staff recommends that Board Rules 426.10, 426.14, & 426.50 be amended:

a. The regulations will create clarity and consistency in regards to the accepted start date for qualifying experience.

b. The current language is confusing and does not provide a firm date that establishes when qualifying experience begins.

During the rulemaking process, amendments may be made to the language either by the Board's own motion or based on comments received during the initial 45-day public comment period. Substantive amendments would require additional noticed comment periods after the 45-day comment period.

The recommended amendments of Board Rules 426.10, 426.14, and 426.50 are included in this agenda. Changes are shown in ~~strikethrough~~ text. Additions are show in underline text. At this time, staff recommends that the Board approve these changes and direct staff to begin the formal rulemaking process to repeal these regulations.

RECOMMENDED MOTION:
Board staff recommends that the Board approve the above proposal and direct staff to begin the formal rulemaking process to amend California Code of Regulations Sections 426.10, 426.14, and 426.50 and clarify all reference to qualifying experience regarding structural engineer qualifications.

Proposed Language

Amend section 426.10 of Article 1 in Division 5 of Title 16 of the California Code of Regulations to read as follows:

426.10. Qualification Requirements for Structural Authority.

An applicant for authority to use the title "structural engineer" shall comply with all of the following requirements:

(a) The applicant shall hold an unexpired, valid California license as a civil engineer.

(b) The applicant shall submit evidence satisfactory to the Board that the applicant has been in responsible charge of structural engineering qualifying experience, as defined in Section 426.11 and/or Section 426.12, for a minimum of three years ~~subsequent to~~ after the date ~~of examination which was passed to gain~~ the license as a California ~~license as a~~ civil engineer was issued or as provided in Section 426.14.

Note: Authority cited: Section 6716, Business and Professions Code. Reference: Sections 6706.3, 6710, 6732, 6736 and 6763, Business and Professions Code.

Amend section 426.14 of Article 1 in Division 5 of Title 16 of the California Code of Regulations to read as follows:

426.14. Experience for Structural Engineering Gained Out of State.

(a) The Board may consider an application for authority to use the title "structural engineer" from an applicant who does not possess three (3) years of qualifying experience ~~subsequent to~~ that was gained after the date ~~of~~ the ~~examination which was passed to gain licensure~~ license as a California civil engineer was issued but who possesses experience equivalent to that provided in Section 426.11 based upon either:

(1) A minimum of three (3) years of structural engineering qualifying experience gained after the applicant's registration or licensure as civil engineer in another state.

(2) A minimum of three (3) years of structural engineering qualifying experience which was gained while exempt from licensure pursuant to Section 6739 of the Code or while employed or registered or licensed in another country. Such experience shall be in addition to the experience required for licensure as a civil engineer in this state.

(b) Applicants seeking approval of their structural engineering qualifying experience, pursuant to this section, shall file their application at least six months prior to the final filing deadline to be considered for the next scheduled examination. Applicants may be required to appear for an interview regarding their structural engineering qualifying experience.

Note: Authority cited: Section 6716, Business and Professions Code. Reference: Sections 6706.3, 6710, 6717, 6732, 6736, 6739, 6751.2, 6753.5 and 6763, Business and Professions Code.

Amend section 426.50 of Article 1 in Division 5 of Title 16 of the California Code of Regulations to read as follows:

426.50. Qualification Requirements "Soil Engineer."

An applicant for authority to use the title "soil engineer" shall:

(a) Hold an unexpired, valid California license as a civil engineer.

(b) Submit evidence satisfactory to the Board that the minimum number of years of qualifying experience or education has been met as required in Sections 6736.1(b) and 6763 of the Code and as defined in Section 426.51, ~~subsequent to~~ after the date ~~of examination which was passed to gain licensure~~ the license as a California civil engineer was issued. In addition, up to one year credit as qualifying experience in responsible charge will be given for possession of post graduate degree(s) from a Board approved school of engineering with major studies in soil engineering as listed in Section 426.51(c). Credit for post graduate degree(s) will not be given if it has already been applied to the experience requirement for civil engineering licensure.

Note: Authority cited: Section 6716, Business and Professions Code. Reference: Sections 6706.3, 6710, 6716, 6732, 6736.1 and 6763, Business and Professions Code.

APPROVAL AND ADOPTION OF RULEMAKING PROPOSALS RELATING TO Definitions of Engineering Geology and Professional Geophysical Work [Title 16, California Code of Regulations section 3003 (b) and (e)]

The proposed amendments to the above regulation were noticed for public comment on November 29, 2013. The public comment period for the submittal of written comments ended on January 21, 2014. No written comments were received regarding this proposed rulemaking decision.

No public hearing was scheduled regarding this rulemaking proposal, and a public hearing was not requested during the time period in which to request a hearing.

The proposed changes to Section 3003 (b) and (e) are as follows:

- Section 3003 (b)-Definition of Engineering Geology
  Amendments to Section 3003 (b) include the addition of language that clarifies the role of an engineering geologist and creates a more accurate definition of the engineering geology practice.

- Section 3003 (e)-Definition of Professional Geophysical Work
  Amendments to Section 3003 (e) create a more accurate definition of Professional Geophysical work in regards to the current scope of practice. Specifically, the following statement was added to the proposed definition: "The term includes the practice of geophysics for the evaluation and mitigation of earthquake hazards, and environmental and groundwater resources assessment."

RECOMMENDED MOTION

Adopt the proposed changes to Title 16, California Code of Regulations section 3003 (b) and (e) and direct staff to finalize the rulemaking file for submittal to the Department of Consumer Affairs and the Office of Administrative Law for review and approval.

BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS AND GEOLOGISTS

Proposed Language

Amend subsections (b) and (e) of section 3003 of Article 1, Division 29, Title 16 of the California Code of Regulations, to read as follows:

3003. Definitions.

For the purposes of the rules and regulations contained in this chapter, the term:

* * *

(b) "Engineering Geology" means the application of geologic data, principles and interpretation so that geologic factors and processes affecting planning, design, construction, ~~and~~ maintenance, and vulnerability of civil engineering works are properly recognized and utilized.

* * *

(e) "Professional geophysical work" is work performed at a professional level rather than at a subprofessional or apprentice level and requires the application of scientific knowledge, principles and methods to geophysical problems through the exercise of individual initiative and judgment in investigating, measuring, interpreting and reporting on the physical phenomena of the earth. The term includes the practice of geophysics for the evaluation and mitigation of earthquake hazards, and environmental and groundwater resource assessment. Implicit in this definition is the recognition of professional responsibility and integrity and the acknowledgment of minimal supervision.

"Professional geophysical work" specifically does not include activities wherein the analysis or interpretation of geophysical or geological information is lacking. Such nonprofessional work could encompass party or crew chief and would encompass lesser forms of employment in field parties, the manufacture, assembly or maintenance and repair of geophysical instruments and equipment, computer programming, data processing or retrieval and routine activities normally performed by a technician in acquiring and reporting on geophysical information where the elements of initiative, scientific judgment and decision making are absent. It also does not include those engineering disciplines and other physical sciences wherein geophysical or geological investigation, analysis and interpretation are minimal or lacking.

* * *

Note: Authority cited: Section 7818, Business and Professions Code. Reference: Sections 7800, 7801, 7802, 7802.1, 7803, 7803.1, 7804, 7804.1, 7822, 7841 and 7841.1, Business and Professions Code.

APPROVAL AND ADOPTION OF RULEMAKING PROPOSALS RELATING TO Professional Geologists and Geophysicists Fee Regulation [Title 16, California Code of Regulations Section 3005]

The proposed amendments to the above regulation were noticed for public comment on December 13, 2013. The public comment period for the submittal of written comments ended on January 27, 2014.

No public hearing was scheduled regarding this rulemaking proposal, and a public hearing was not requested during the time period in which to request a hearing.

The proposed changes to Section 3005 are as follows:

Establish a Retired Status Fee:

- Senate Bill 822 (Chapter 319, Committee on Business, Professions and Economic Development, Statutes of 2013), which became effective on January 1, 2014, added Business and Professions Code section 7851 and amended section 7887 of the Geologist and Geophysicists to establish a retired license status for Professional Geologists and Geophysicists. An amendment to Title 16, California Code of Regulations section 3005 is necessary to implement the retired status for Professional Geologists and Geophysicists. The proposed fee for the retired license is $62.50, which is the same fee that is established for Professional Engineers and Professional Land Surveyors (Title 16, California Code of Regulations section 407(f)).

Removal of Temporary Authorization Fee:

- Title 16, California Code of Regulations section 3005(b)(3) (Temporary Authorization Fee) is being removed due to the passage of Senate Bill 152 (Chapter 178, Roth, Statutes of 2013) which repealed Business and Professions Code sections 7848 and 7848.1 (Temporary Authorization for geology and geophysics) and deleted Business and Professions Code section 7887(d) (Temporary Authorization registration fee) from the Geologist and Geophysicist Act, effective January 1, 2014.

RECOMMENDED MOTION

Adopt the proposed changes to Title 16, California Code of Regulations section 3005 and direct staff to finalize the rulemaking file for submittal to the Department of Consumer Affairs and the Office of Administrative Law for review and approval.

BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS AND GEOLOGISTS

Proposed Language

Amend Section 3005 of Article 1, Division 29, Title 16 of the California Code of Regulations, to read as follows:

3005. Fees.

(a) All fees required by provisions of the code and rules of the board shall be transmitted by money order, bank draft or check, payable to the Department of Consumer Affairs.

(b) The following is the prescribed application fee for:

(1) Licensure as a Professional Geologist or a Professional Geophysicist.....$250.00;

(2) Certification as a specialty geologist or specialty geophysicist .....$250.00;.

~~(3) The temporary licensure fee as a geologist, geophysicist, specialty geologist, or specialty geophysicist $80.00.~~

(c) The following is the prescribed examination fee for:

(1) The Practice of Geology national examination $250.00;

(2) The California specific geologist examination $150.00;

(3) The Fundamentals of Geology national examination $150.00;

(4) Examination for licensure as a geophysicist.....$100.00;

(5) Examination for certification as a specialty geologist or specialty geophysicist.....$100.00.

(d) The duplicate certificate fee .....$ 6.00.

(e) The following is the prescribed renewal fee for:

(1) Licensure as a geologist or a geophysicist $270.00;

(2) Certification as a specialty geologist or a specialty geophysicist .....$ 67.50.

(f) The delinquency fee for renewal of licensure as a geologist or geophysicist or certification as a specialty geologist or specialty geophysicist is 50% of the renewal fee in effect on the last regular renewal date.

(g) When transmitted through the mail, fees required under provisions of this rule shall be deemed filed on the date shown by the post office cancellation mark appearing on the envelope containing the fee.

(h) The fee for the retired license shall be $62.50. No renewal fee or other fee shall be charged for the retired license. As used in this subdivision, "license" includes certificate of registration or license as a professional geologist, certificate of registration as a registered certified specialty geologist, and certificate of registration as a professional geophysicist.

Note: Authority cited: Sections 7818 and 7851, Business and Professions Code. Reference: Sections 7846 and 7887, Business and Professions Code.

VIII. ADMINISTRATION

A. FY 2013/14 Budget Overview
B. FY 2014/15 Budget Introduction
C. Out-of-state Travel Update

Budget Overview

- Introduction
- FY 2013/14 – Update
- FY 2014/15 - Introduction

Introduction

Expenditure Authority

- Non-Discretionary
  - Salaries and Wages
  - Staff Benefits
  - Pro-Rata (DCA,DGS, SCSA, DOF, SCO)
- Discretionary
  - General Operating Expense
  - Travel
  - Training
  - Enforcement

Introduction Cont.

Revenue and Revenue Codes

- Application / License Fees
  - 125700
- Renewal Fees
  - 125800
- Delinquency Fees
  - 125900

Introduction Cont.

- Appropriation
  - A program's annual expenditure authority approved by Governor

3-YEAR EXPENDITURES BY PROGRAM	Actual 2012-13	Estimated 2013-14	Proposed 2014-15
State Operations:			
0770 Professional Engineers and Land Surveyors Fund	$6,819	$9,739	$9,640
0205 Geology and Geophysics Account, Professional Engineers and Land Surveyors Fund	1,042	1,379	1,394
0995 Reimbursements	49	16	16
Totals, State Operations	**$7,910**	**$11,134**	**$11,050**

* Dollars in thousands

- Fund
  - A program's account where expenditures are paid and revenue is deposited
  - 0770 - Engineers, 0205 – Geology
  - 0995 – Investigative Cost Recovery, OIS Public Sales

0770 - Board for Prof. Engineers and Land Surveyors
Analysis of Fund Condition

Prepared 1/22/14

(Dollars in Thousands)

Governor's Budget FY 2014 - 2015

NOTE: $7.0 M GF Loan Outstanding		ACTUAL 2012-13	CY 2013-14	Governor's Proposed BY 2014-15
BEGINNING BALANCE		$ 697	$ 1,923	$ 5,155
Prior Year Adjustment		$ -39	$ -	$ -
Adjusted Beginning Balance		$ 658	$ 1,923	$ 5,155
REVENUES AND TRANSFERS				
Revenues:				
125600	Other regulatory fees	$ 88	$ 90	$ 72
125700	Other regulatory licenses and permits	$ 2,560	$ 2,581	$ 2,604
125800	Renewal fees	$ 5,415	$ 6,014	$ 5,031
125900	Delinquent fees	$ 57	$ 57	$ 50
141200	Sales of documents	$ -	$ -	$ -
142500	Miscellaneous services to the public	$ -	$ -	$ -
150300	Income from surplus money investments	$ 8	$ 26	$ 11
160400	Sale of fixed assets	$ -	$ -	$ -
161000	Escheat of unclaimed checks and warrants	$ 8	$ 8	$ 8
161400	Miscellaneous revenues	$ 1	$ 2	$ 2
Totals, Revenues		$ 8,137	$ 8,778	$ 7,778
Transfers from Other Funds				
FO0001	Proposed GF Loan Repayment per item 1110-011-0770, Budget Act of 2008	$ -	$ 2,000	$ -
FO0001	Proposed GF Loan Repayment per item 1110-011-0770, Budget Act of 2011	$ -	$ 500	$ 500
Totals, Revenues and Transfers		$ 8,137	$ 11,278	$ 8,278
Totals, Resources		$ 8,795	$ 13,201	$ 13,433
EXPENDITURES				
Disbursements:				
1110	Program Expenditures (State Operations)	$ 6,819	$ 8,002	$ 9,640
8840	SCO (State Operations)	$ 7	$ 1	$ -
8880	Financial Information System for CA (State Operations)	$ 46	$ 43	$ 8
Total Disbursements		$ 6,872	$ 8,046	$ 9,648
FUND BALANCE				
Reserve for economic uncertainties		$ 1,923	$ 5,155	$ 3,785
Months in Reserve		2.9	6.4	4.6

0205 - Geology
Analysis of Fund Condition

Prepared 1/22/14

(Dollars in Thousands)

Governor's Budget FY 2014 - 2015

		ACTUAL 2012-13	CY 2013-14	Governor's Proposed BY 2014-15
BEGINNING BALANCE		$ 1,041	$ 1,066	$ 850
Prior Year Adjustment		$ 19	$ -	$ -
Adjusted Beginning Balance		$ 1,060	$ 1,066	$ 850
REVENUES AND TRANSFERS				
Revenues:				
125600	Other regulatory fees	$ 1	$ 2	$ 2
125700	Other regulatory licenses and permits	$ 221	$ 222	$ 226
125800	Renewal fees	$ 815	$ 753	$ 815
125900	Delinquent fees	$ 14	$ 14	$ 15
141200	Sales of documents	$ -	$ -	$ -
142500	Miscellaneous services to the public	$ -	$ -	$ -
150300	Income from surplus money investments	$ 4	$ 4	$ 4
160400	Sale of fixed assets	$ -	$ -	$ -
161000	Escheat of unclaimed checks and warrants	$ -	$ -	$ -
161400	Miscellaneous revenues	$ -	$ -	$ -
Totals, Revenues		$ 1,055	$ 995	$ 1,062
Totals, Revenues and Transfers		$ 1,055	$ 995	$ 1,062
Totals, Resources		$ 2,115	$ 2,061	$ 1,912
EXPENDITURES				
Disbursements:				
1110	Program Expenditures (State Operations)	$ 1,042	$ 1,205	$ 1,394
8840	FSCU (State Operations)	$ 1	$ -	$ -
8880	Financial Information System for CA (State Operations)	$ 6	$ 6	$ 1
Total Disbursements		$ 1,049	$ 1,211	$ 1,395
FUND BALANCE				
Reserve for economic uncertainties		$ 1,066	$ 850	$ 517
Months in Reserve		10.6	7.2	4.4

FY 2013/14 - Summary

Expenditures

- PELS Baseline Budget - $9,739,000
- GEO Baseline Budget - $1,379,000

Revenue

- PELS Revenue - $8,734,000
- GEO Revenue - $998,000

Note: Approved Governor's Budget figures

PROFESSIONAL ENGINEERS & LAND SURVEYORS FUND - 0770
Budget Report
Expenditure Projection

December 31, 2013

Current Fiscal Month: 6 — Months Remaining: 6

OBJECT DESCRIPTION	FY 2012-13 ACTUAL EXPENDITURES (MONTH 13)	FY 2012-13 EXPENDITURES AS OF 12/31/2012	FY 2013-14 BUDGET ALLOTMENT	FY 2013-14 EXPENDITURES AS OF 12/31/2013	FY 2013-14 PERCENT OF BUDGET SPENT	FY 2013-14 PROJECTIONS TO YEAR END	FY 2013-14 UNCUMBERED BALANCE
PERSONAL SERVICES:							
Salaries and Wages							
Civil Service-Perm	1,894,740	974,586	2,154,838	1,014,200	47.1%	1,990,511	164,327
Temp Help (907)	59,965	20,460	101,908	7,638	7.5%	57,238	44,670
Exam Proctor (915)	3,618		116,780		0.0%	2,626	114,154
Allocated Proctor Cost	14,251	7,760		5,359	0.0%	16,000	(16,000)
Statutory Exempt - EO	102,610	51,305	93,586	55,404		110,808	(17,222)
Board/Commission (910,920)	6,491	1,200	16,100	800	5.0%	6,130	9,970
Comm Member (911)	200	200	6,429	400	6.2%	300	6,129
Overtime (909)	3,024	1,289	14,100	346	2.5%	10,742	3,358
Staff Benefits	904,139	451,766	933,521	476,419	51.0%	955,445	(21,924)
Salary Savings					0.0%		0
TOTAL, PERSONAL SVC	2,989,038	1,508,566	3,437,262	1,560,566	45.4%	3,149,800	287,462
OPERATING EXPENSE AND EQUIPMENT:							
Fingerprints			0	0	0.0%	0	0
General Expense	57,332	27,533	30,803	28,067	91.1%	55,938	(25,135)
Printing	38,748	10,795	24,312	14,410	59.3%	41,077	(16,765)
Communication	31,144	12,385	12,849	8,591	66.9%	26,757	(13,908)
Postage	74,114	23,785	36,140	27,913	79.4%	66,620	(31,480)
Insurance	185	185	0		0.0%	144	(144)
Travel In State	50,505	15,561	88,993	26,444	29.7%	54,096	34,897
Travel Out-of-State	0		0		0.0%		0
Training	655	365	13,853		0.0%	400	13,453
Facilities Operations	253,647	334,155	369,619	347,420	94.0%	370,048	(429)
C/P Services - Internal	4,867		23,958	12,500	52.2%	12,500	11,458
C/P Services - External	253,157	125,588	171,012	349,113	204.1%	329,638	(158,626)
Departmental Services:							
Interagency	29,014	29,014	835		0.0%		835
All Other DCA Pro Rata	871,045	526,182	1,368,129	708,080	52.1%	1,358,129	0
Consolidated Data Center (Teale)	515	414	17,185	119	0.7%	600	16,585
Information Technology	57,622	16,605	33,256	15,184	45.7%	18,110	15,146
Central (State) Adm Pro Rata	394,941	197,471	485,906	242,953	50.0%	485,906	0
Examinations:							
Exam Supplies/Materials			0		0.0%		0
Exam Rent	478	478	363,457		0.0%	600	362,857
Admin. External Svs	241,447	169,154	2,230,830	663,918	29.8%	678,006	1,552,824
C/P SVS - Expert Exa	80,009		145,322		0.0%	80,009	65,313
Major Equipment	18,775		0		0.0%		0
Other Items of Expense	0		308		0.0%		308
Vehicle Operations	0		2,993		0.0%		2,993
Enforcement:							0
Attorney General	654,445	300,730	608,188	229,645	37.8%	654,445	(46,257)
Office Admin. Hearing	163,044	83,500	162,611	29,296	18.0%	163,044	(433)
Evidence / Witness Fees	236,597	113,382	77,077	88,717	115.1%	236,597	(159,520)
Court Reporters	14,234	4,370		1,935	0.0%	14,234	(14,234)
DOI - Investigation	347,273	176,376	268,102	129,052	50.0%	258,102	0
Minor Equipment	26,423	1,253		31,453	0.0%	31,453	(31,453)
Special Adjustments - OE&E							0
Board of Control Claims							
TOTALS, OE&E:	3,900,216	2,149,281	6,514,738	2,954,810	45.4%	4,936,452	1,578,286
TOTAL EXPENSE:	6,889,254	3,657,847	9,952,000	4,515,376	45.4%	8,086,252	1,865,748
REIMBURSEMENTS:							
Scheduled	(8,000)	(16,000)	(8,000)	(8,000)	100.0%	(8,000)	0
External & Unscheduled	(8,000)		(8,000)	(8,000)	100.0%	(8,000)	0
Distributed Cost - Int. Geology	(68,000)	(68,000)	(68,000)	(68,000)	100.0%	(68,000)	0
TOTAL REIMBURSEMENTS:	(84,000)	(84,000)	(84,000)	(84,000)	3	(84,000)	0
NET APPROPRIATION:	6,805,254	3,673,847	9,868,000	4,431,376	44.9%	8,002,252	1,865,748
					SURPLUS/(DEFICIT):		18.91%

FUND NO. 0205
Expense Index 5100

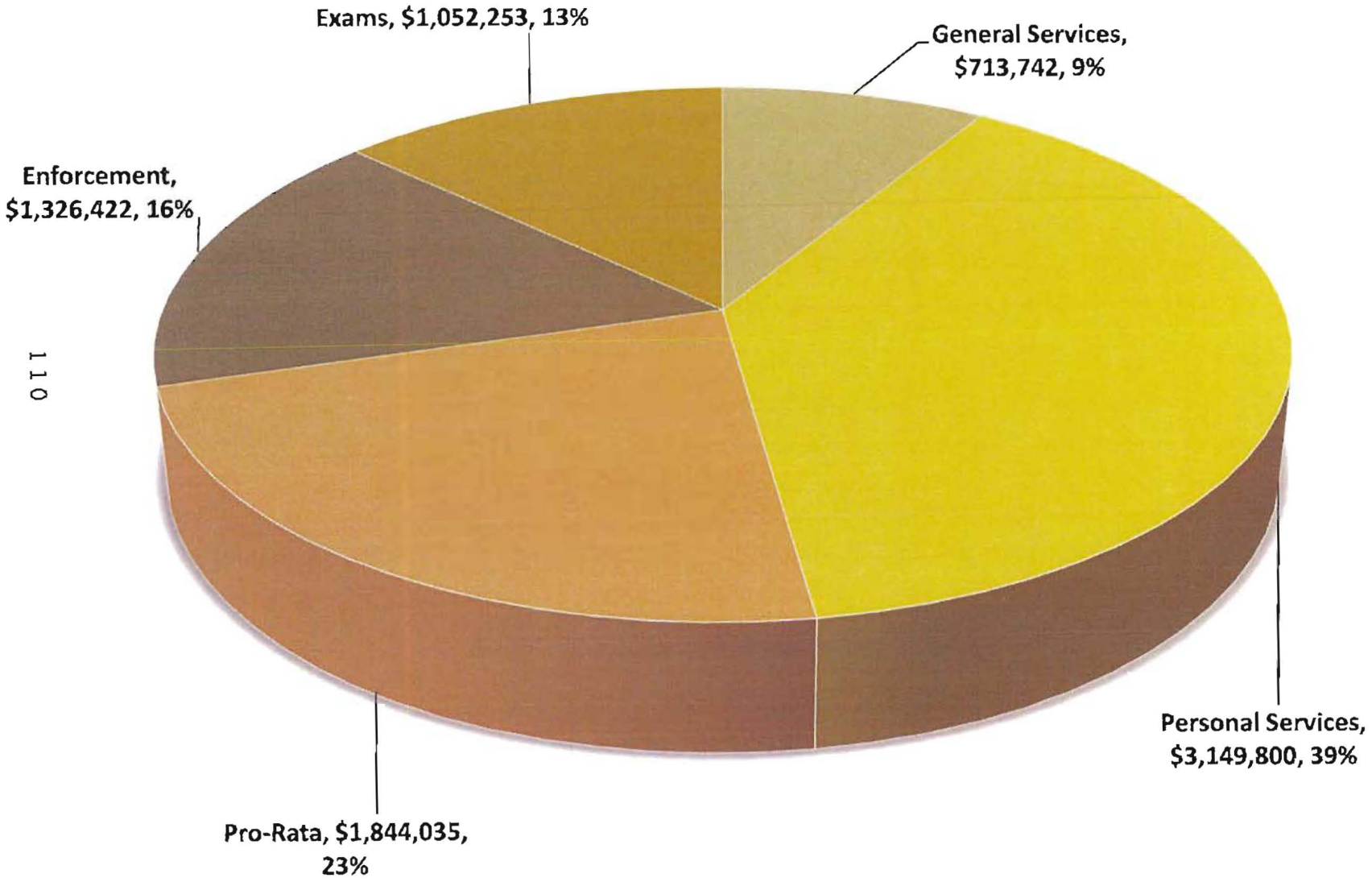
GEOLOGISTS AND GEOPHYSICISTS PROGRAM
BUDGET REPORT
EXPENDITURE PROJECTION

December 31, 2013

MONTH 6 — Mos. Remaining: 6

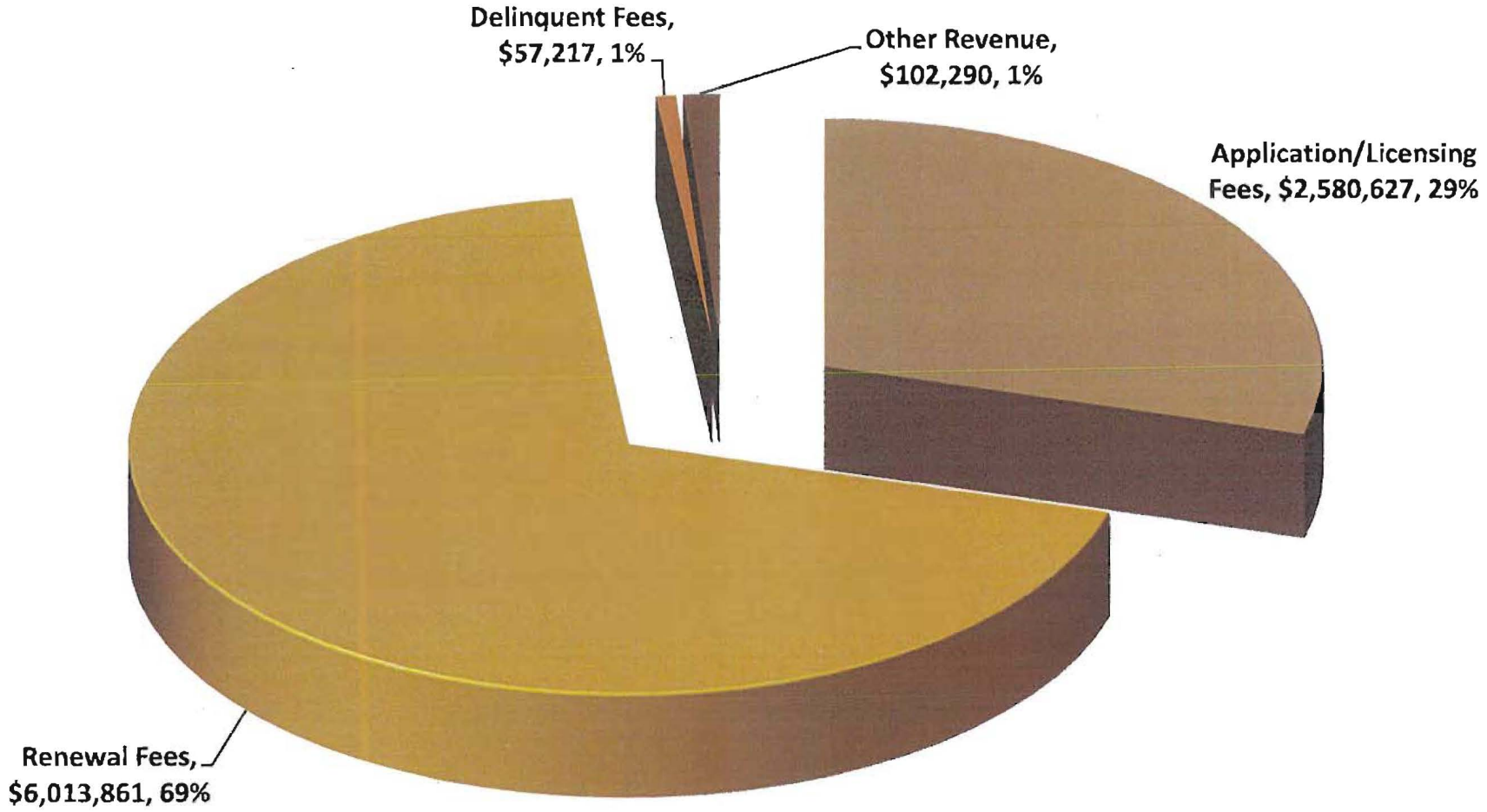
OBJECT DESCRIPTION	FY 2012-13 ACTUAL EXPENDITURES (MONTH 13)	FY 2012-13 PY EXPENDITURES 12/31/12	FY 2013-14 BUDGET ALLOTMENT	FY 2013-14 CY EXPENDITURES 12/31/13	FY 2013-14 PERCENT OF BUDGET SPENT	FY 2013-14 PROJECTIONS TO YEAR END	FY 2013-14 UNENCUMBERED BALANCE
PERSONAL SERVICES:							
Salaries and Wages							
Civil Service-Perm	209,071	97,943	251,783	122,480	48.6%	247,311	4,472
Statutory Exempt							
Temp Help (907)	2,400		18,933		0.0%	2,400	16,533
Allocated Proctor Cost	16,737	7,180	8,282	9,778	118.1%	16,737	(8,455)
Board/Commission (910,920)					0.0%		0
Committee Member (911)	900	900		400	0.0%	900	
Overtime (909)	1,096	1,026		378	0.0%	1,096	(1,096)
Staff Benefits	111,373	50,832	122,937	65,325	53.1%	118,709	4,228
Salary Savings					0.0%		0
TOTAL, PERSONAL SVC	**341,577**	**157,881**	401,935	**198,361**	49.4%	**387,154**	15,681
OPERATING EXPENSE AND EQUIPMENT:							
General Expense	3,206	924	862	2,485	288.3%	3,200	(2,338)
Fingerprint Reports							
Printing	2,519	997	731	0	0.0%	2,600	(1,869)
Communication	1,214	337	1,275	344	27.0%	1,300	(25)
Postage	9,800	2,223	731	2,828	386.9%	10,000	(9,269)
Insurance					0.0%		0
Travel In State	8,977	3,014	1,427	3,087	216.3%	9,000	(7,573)
Travel, Out-of-State	0		0		0.0%		0
Training	250	250	231		0.0%	250	(19)
Facilities Operations	6,800	6,800	7,006	3,400	48.5%	3,400	3,606
C & P Services - Interdept.			59,100		0.0%		59,100
C & P Services - External	2,580	326	17,511	16,000	91.4%	16,000	1,511
DP Billing (OIS)	32,134	16,326	32,836	16,418	50.0%	32,836	0
Indirect Distributed Cost (OAS &	42,155	21,710	47,838	25,230	52.7%	47,838	0
Interagency Services	0		28,382		0.0%		28,382
Interagency Agreement (OER)	276,124	276,124		150,888	0.0%	273,606	(273,606)
DOI Prorata	0		1,588	794	50.0%	1,588	0
Public Affairs Office	0		2,242	1,122	50.0%	2,242	0
Consumer & Comm Rel. (CCED	2,924	1,484	1,932	966	50.0%	1,932	0
Consolidated Data Center (Teale	16	3	4,066	14	0.3%	16	4,050
Data Processing Maint/Supplies			4,108		0.0%		4,108
Central Admin Pro Rata	57,695	28,848	53,867	26,934	50.0%	53,867	0
EXAMINATIONS:							
Exam Supplies/Materials			142		0.0%		142
Exam Rent - Non State	0		5,153	1,320	25.6%	1,320	3,833
Administrative External Svcs	101,306	168,307	359,935	218,569	60.7%	146,969	212,967
C/P Svs - Ext Expert Examiners	158,654	65,851	110,319	55,186	50.0%	158,654	(48,335)
C/P Svs - Sub Matter Experts					0.0%		0
Major Equipment					0.0%		0
Minor Equipment					0.0%		0
Special Adjustments					0.0%		0
ENFORCEMENT:							
Attorney General	7,148	4,088	215,333	9,660	4.5%	26,847	188,486
Office Admin. Hearing	264		7,783	80	1.0%	500	7,283
Evidence / Witness Fees	23,622	6,497	11,667	5,400	46.3%	24,118	(12,451)
Court Reporters							0
DOI Investigation	4,354	2,212			0.0%		0
School Oversight							0
TOTALS, OE&E:	**741,742**	**606,321**	**976,065**	**540,725**	**55.4%**	**818,082**	157,983
TOTAL EXPENSE:	**1,083,319**	**764,202**	**1,378,000**	**739,086**	**53.6%**	**1,205,236**	173,664
Sched. Reimb. - Other	0	0	0		0.0%	0	0
Sched. Reimb. - Fingerprints	0	0	0		0.0%	0	0
Unsched. Reimb.	0	0	0	0	0.0%	0	0
TOTAL REIMBURSEMENTS:	0	0	0	0	0.0%	0	0
NET APPROPRIATION:	**1,083,319**	**764,202**	**1,378,000**	**739,086**	**53.6%**	**1,205,236**	**173,664**
					SURPLUS/(DEFICIT):		**12.60%**

FY 2013/14 – PELS Expenditures



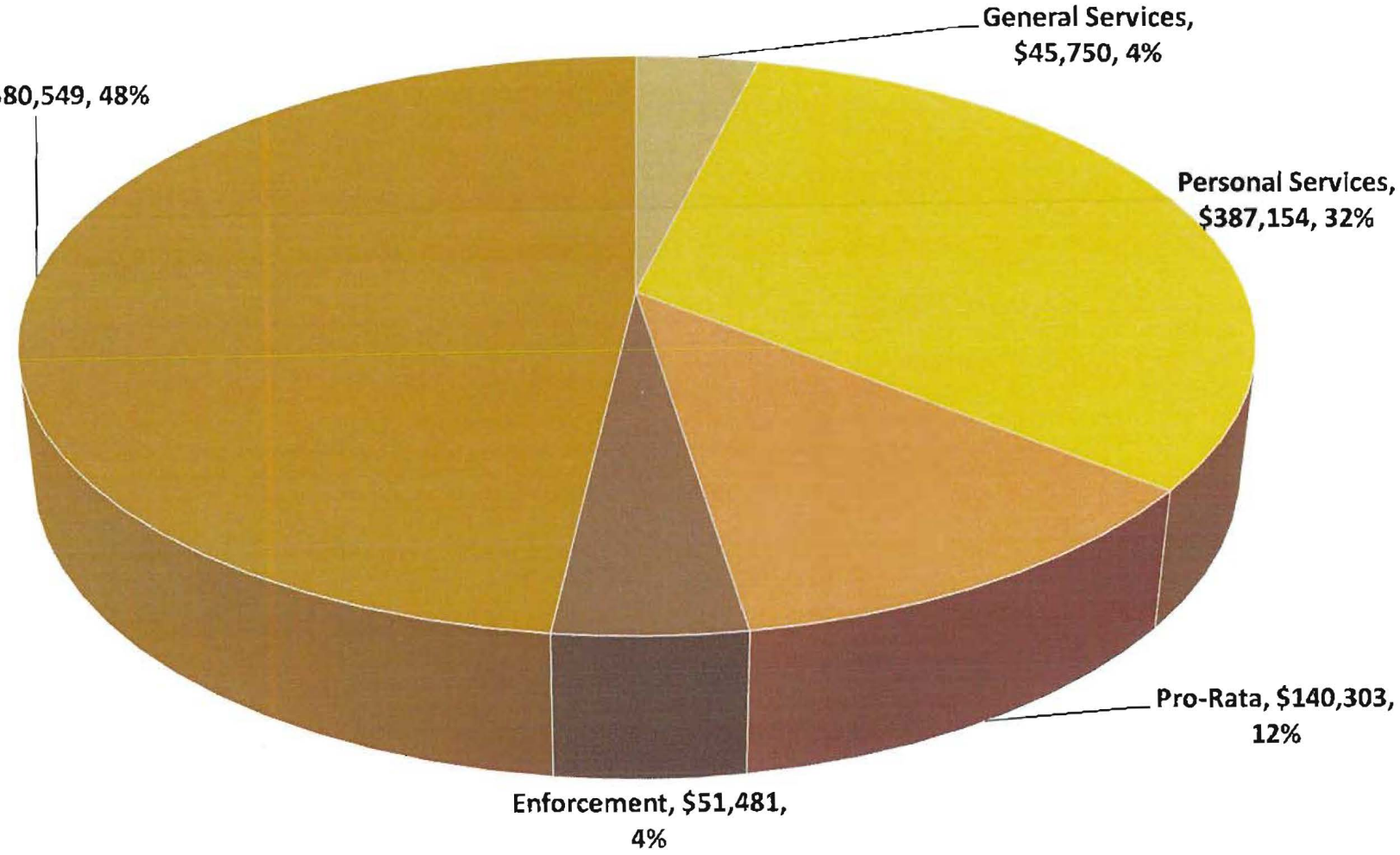
Notes: FY 2013-14 expenditures - $8,086,252

FY 2013/14 – PELS Revenue



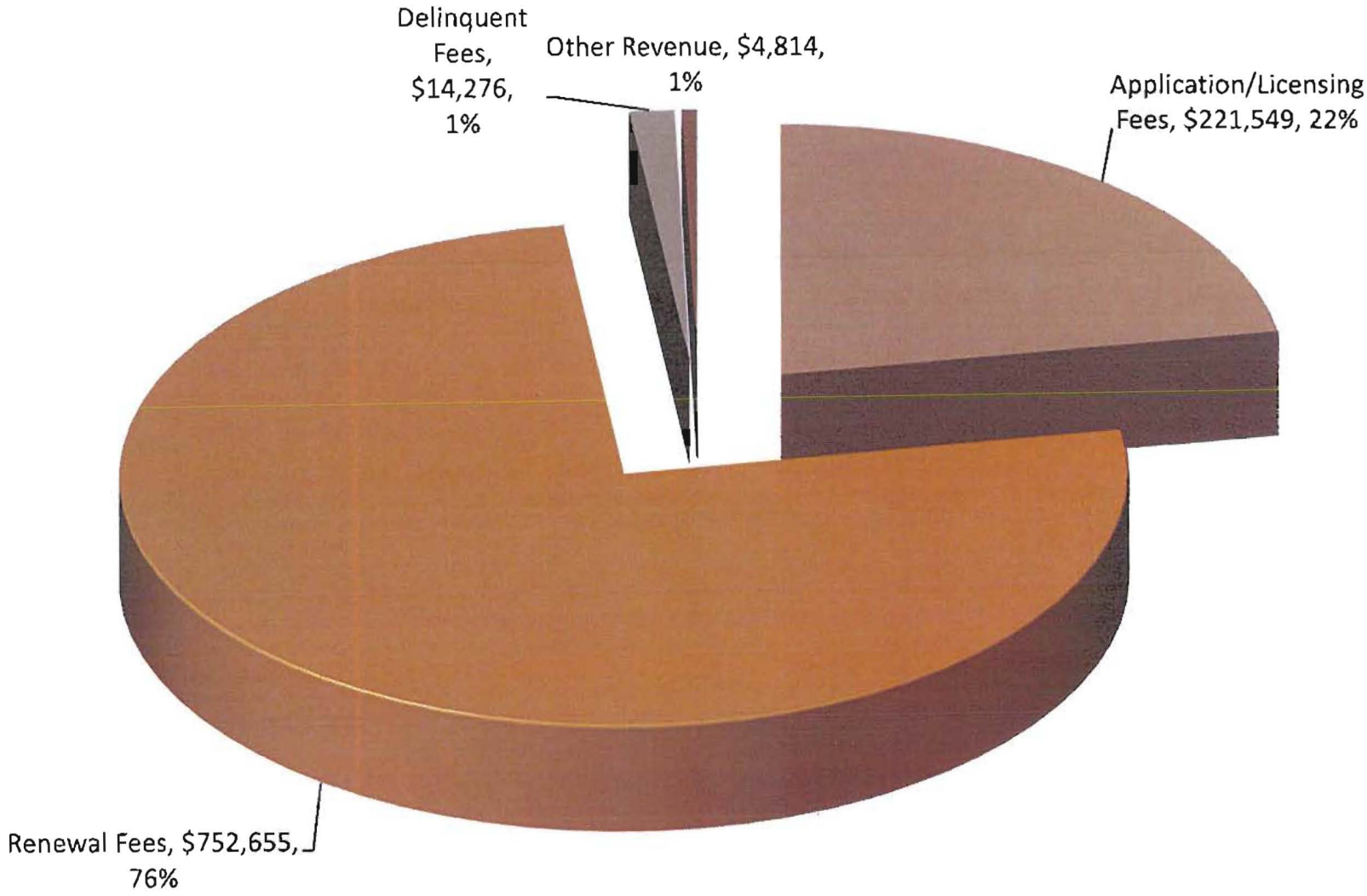
Projected Revenue: $8,735,995

FY 2013/14 – GEO Expenditures



Notes: FY 2013-14 expenditures - $1,205,236

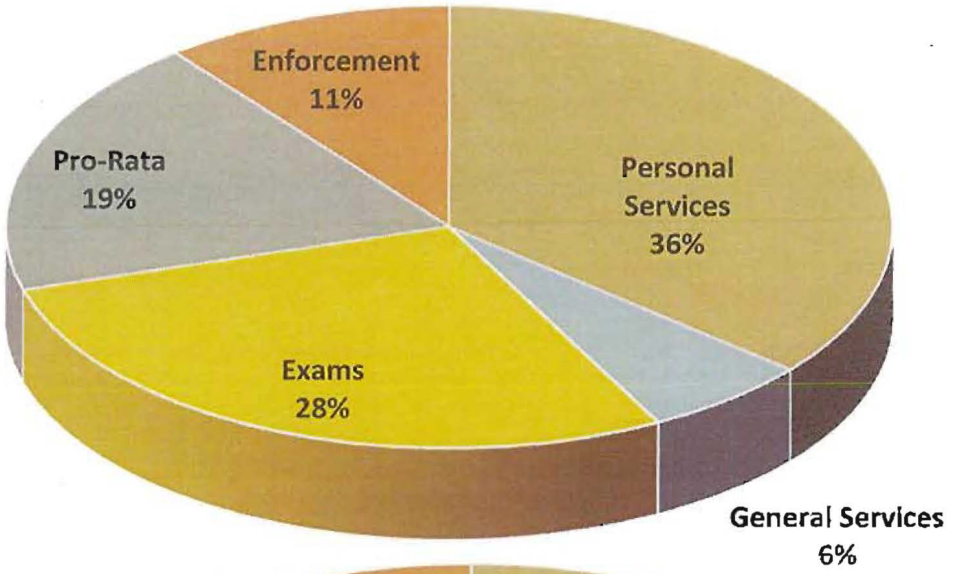
FY 2013/14 – GEO Revenue



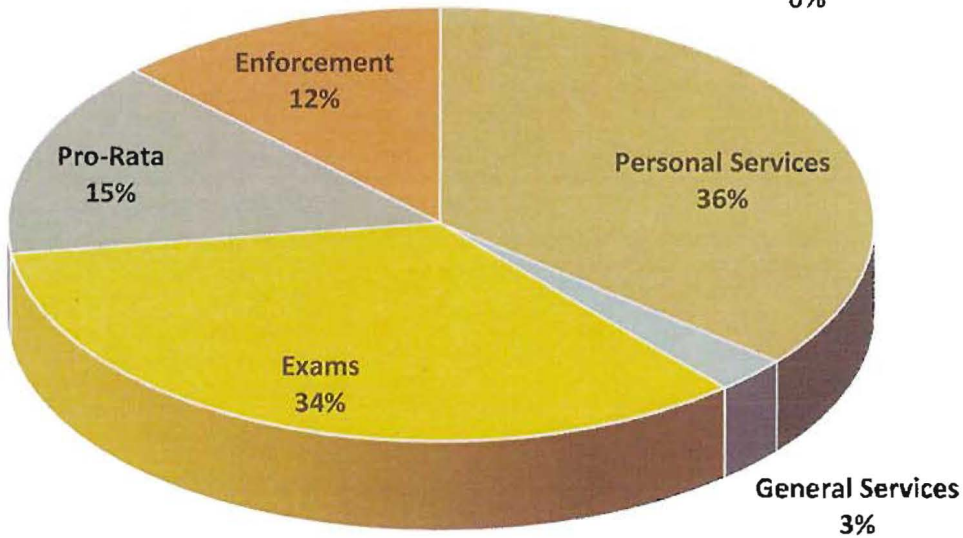
Projected Revenue: $993,332

FY 2014/15 Introduction

PELS Fund	
Personal Services	$3,513,598
General Services	$589,224
Exams	$2,739,609
Pro-Rata	$1,847,144
Enforcement	$1,034,425
Subtotal	**$9,724,000**
Reimbursements	($84,000)
Total	**$9,640,000**



GEO Account	
Personal Services	$501,016
General Services	$37,818
Exams	$475,549
Pro-Rata	$205,042
Enforcement	$174,575
Total	**$1,394,000**



Questions?

IX. TECHNICAL ADVISORY COMMITTEES (TACs)

A. Board Assignments to TACs
B. Appointment of TAC Members
C. Reports from the TACs

X. LIAISON REPORTS

A. ASBOG
B. ABET
C. NCEES
   1. Nomination of Emeritus Members
D. Technical and Professional Societies

XI. CLOSED SESSION

A. Civil Litigation

1. Dennis William McCreary vs. Board for Professional Engineers, Land Surveyors, and Geologists, Sierra County Superior Court Case No. 7361

2. Thomas Lutge v. Board for Professional Engineers, Land Surveyors, and Geologists, Department of Consumer Affairs, Sacramento Superior Court Case No. 34-2012-80001329-CU-WM-GDS

3. Ruvin Grutman v. Board for Professional Engineers, Land Surveyors, and Geologists, Los Angeles Superior Court Case No. BS145675

4. Ruvin Grutman v. Board for Professional Engineers, Land Surveyors, and Geologists, Los Angeles Superior Court Case No. BS145796

5. Sassan Salehipour v. Board for Professional Engineers, Land Surveyors, and Geologists, Los Angeles County Superior Court Case No. BS146185

XII. OPEN SESSION TO ANNOUNCE THE RESULTS OF CLOSED SESSION

XIII. PRESIDENT'S REPORT/BOARD MEMBER ACTIVITIES

XIV. APPROVAL OF CONSENT ITEMS

Approval of the Minutes of the December 5, 2013, Board Meeting

DRAFT MINUTES

MEETING OF THE BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

December 5, 2013
Beginning at 9:00 a.m.

Thursday, December 5, 2013

Board Members Present:	Erik Zinn, President; Kathy Jones Irish, Vice President; Diane Hamwi; Eric Johnson; Carl Josephson; Coby King; Dr. Hong Beom Rhee; Ray Satorre; Jerry Silva; Robert Stockton; and Patrick Tami
Board Members Absent:	Diane Hamwi, Philip Quartararo
Board Staff Present:	Ric Moore (Executive Officer); Joanne Arnold (Assistant Executive Officer); Nancy Eissler (Enforcement Manager); Celina Calderone (Board Liaison); Jeff Alameida (Budget Analyst); Raymond Mathe (Examinations Manager); Brooke Phayer (Outreach Analyst); Erin LaPerle (Geology Program Analyst); Tiffany Criswell (Enforcement Analyst); and Gary Duke (Legal Counsel).

I. **Roll Call to Establish a Quorum**

The meeting was called to order by President Zinn at 9:00 a.m. Roll Call was taken, and a quorum was not established.

II. **Public Comment**

Mr. Michael Edwards, attorney for a licensee, introduced himself and addressed the Board on his own behalf. He is a thirteen year member of the San Diego County Planning Commission. He has been an attorney for 40 years and a member of other boards and commissions. He provided copies of a letter he provided the Office of the Attorney General before the 3-day hearing involving his client. Mr. Edwards expressed his concerns with the lack of investigation done by the Office of the Attorney General and the Board prior to action being pursued against his client. He also expressed his concerns that the Board's Technical Expert consultant expected too high of a standard of practice. Mr. Edwards noted that his client suffered a financial burden defending this matter and the judge dismissed all but one of the charges.

Mr. Edwards stated that Code section 41135 requires a certificate of merit before litigation can be filed against a design professional. He suggested that the Board consider employing of engineers in the same area as the project and directing the Attorney General's Office to conduct more interviews.

Mr. Satorre arrived at 9:08, and a quorum was established.

III. Executive Officer's Report

A. Legislation

1. Discussion of Legislation for 2013. Ms. Arnold reported on the following bills:

AB 186 Maienschein. Professions and vocations: military spouses: temporary licenses. This bill would authorize a board within DCA to issue a temporary license for 12 months to an applicant who meets certain requirements.
STATUS: Introduced 1/28/13. Last amended 6/24/13. Passed Assembly. Heard in SEN B,P&ED Committee 7/1/13 - testimony taken. Further hearing to be set – this is now a 2-year bill.
BOARD POSITION: Oppose unless amended

AB 1057 Medina. Professions and vocations: licenses: military service. This bill would require each board within DCA to inquire in every application for licensure if the applicant is serving in, or has previously served in, the military – commencing January 1, 2015.
STATUS: Signed by Governor 10/03/13. Chapter 693, Statutes of 2013.
BOARD POSITION: Watch

AB 1063 Eggman. Surveyors and engineers. (Amends Sections 6732, 8751, 8772 of, and adds Section 8764.6 to the B&P Code) This bill would prohibit the use of certain titles using the words engineer or surveyor unless the person is appropriately licensed. Additionally it would authorize a licensed surveyor to include additional information, as specified, with a record of survey. This bill would require any monument set by a land surveyor or civil engineer to be marked as specified, and to be marked with the name of the agency and the political subdivision it serves, if set by a public agency.
STATUS: Introduced 2/22/13. Last amended 5/6/13. Heard in ASM Appropriations 5/24/13 – held under submission. This is a 2-year bill.
BOARD POSITION: Oppose unless amended

Bob DeWitt representing ACEC reported that AB 1063 will be dropped as written and produce another bill that he believes the Board will support and drop the filing provisions. The other provisions regarding protecting the city and county engineer titles will be retained. They are currently seeking an author.

SB 207 Cannella. Department of Consumer Affairs: license information. (Amend Section 27 of B&P Code) This bill will eliminate the requirement that the Board for Professional Engineers, Land Surveyors, and Geologists disclose its licensees' addresses of record on its website. This is a Board sponsored bill.

STATUS: Introduced 2/8/13. Scheduled to be heard in SEN BP&ED Committee 4/15/13 - bill pulled by author. This is a 2-year bill.
BOARD POSITION: Support

Ms. Arnold reported that SB 207 did not make it out of the first committee. Senate staff indicated that Senator Canella is not opposed to resurrecting the bill, but something would have to change for that to happen.

G.V. Ayers, representing the Senate BP&ED Committee indicated that a bill that was referred to committee last year can be brought out again in 2014; however, it must get out of the house of origin by the end of January. In dealing with the disclosure issues in Section 27, there have been changes to the Code to move towards more disclosure. The legislation carried by the former chair, Liz Figueroa, made it more explicit to list the address of record but alternately give the licensees the option to provide another address of record other than their home address. They would be reluctant to move away to lesser disclosure. DCA and its Boards are not consistent with how the information is presented on their websites. He would have great reservations with changing the overall policy, and that is why he has maintained a critical view. Mr. Tami indicated that another law prohibits disclosure of public officials' home address, and, therefore, he believes we are not in compliance with a separate law. He asked for advice or suggestions in dealing with two laws that conflict with each other. Mr. Ayers suggested speaking with the Board's legal counsel to determine if there is a conflict at all.

2. Legislative Proposals for 2014
   a. Recommendation to Establish a Code Section Regarding Petitions for Reinstatement or Modification of Penalty in the Geologist and Geophysicist Act

      Mr. Alameida reported that the proposal is to mirror the PE and LS Act and make the three acts consistent.

      MOTION: Mr. King and Mr. Satorre moved to adopt the recommended motion.
      VOTE: 8-0 motion passed

   b. Recommendation to Remove Petroleum Geologists Certification from Code section 7842

      Mr. Alameida reviewed the proposal that would amend Section 7842 to eliminate qualifications for a certification in Petroleum Geology. He explained that it would eliminate the qualifications as

the Board does not issue a certification in petroleum geology. Professional Geologists are already authorized and licensed to perform petroleum geology.

MOTION: Mr. Zinn and Mr. King moved to adopt the recommended motion.
VOTE: 8-0 motion passed

C. Strategic Plan
Mr. Alameida reviewed the Board's Action Plan and explained the goals, descriptions and objectives. He reported that the fingerprinting regulations were approved and will be effective January 1, 2014, and eliminating Business and Professions Code section 6760, temporary authorization, will take effect January 1, 2014.

Mr. Moore suggested outlining any new dates in red. President Zinn believes item 3.8, ASBOG administration of national examinations, should be listed as ongoing. He disagrees with the statement that indicates that it is determined to be unfeasible at this time. He added that he does not think that ASBOG is opposed to administering exams, and there would be more leverage if there was representation from California.

D. Personnel
Mr. Moore reported that Jaime Ingram was recruited to work for another Department, and we are currently recruiting for her vacancy. He met with CalHR along with DCA personnel to discuss the status of the reclassification of the Senior Registrar position to include a licensed geologist and to modify the classification to better suit the needs of the Board. They are optimistic about it as there were minor changes; however, it will still take approximately six to eight months before starting to recruit for a geology registrar. In addition, one of the Board's Staff Services Manager, Linda Brown, who has been with the Board for six years and has worked for the state for 39 years, will be retiring. Recruitment for her position will start early next year.

Ms. Jones Irish arrived at 9:36

E. Administrative Task Force
Mr. Moore reviewed the Administrative Task Force (ATF) report. He pointed out that at the June 2013 meeting, the ATF provided recommendations for the purposes of reducing the aging of the investigation portion. Implementation has begun based on the recommendations provided. The ATF met with Ms. Eissler, Enforcement Manager, and Ms. Criswell, Enforcement Analyst, to review the oldest cases and come up with a plan of action. They have been monitoring adjustments and volumes in workload and completion to balance the load.

President Zinn felt strongly about items 3 and 10 of the recommendations which included possibly assigning an unlicensed case coordinator to encourage follow up and monitoring of those cases particularly when utilizing the services of DOI and assign someone to regularly monitor AG workload. Ms. Eissler explained that each individual analyst receives a monthly report from DOI that includes hours billed to each case. If the analyst notices that no hours have been billed then they contact the DOI supervisor for a status update. President Zinn would like estimated completion dates from DOI. Ms. Eissler added that there may be a timeframe within DOI but this information is not relayed to the Board. President Zinn recommended inquiring about completion dates.

Mr. Moore continued to report on a more recent case that the ATF reviewed to determine why the case aged as long as it had in an effort to better understand the delay. Mr. Stockton asked where the ATF stands on the selection of experts. Mr. Moore explained that both members of the ATF discussed that a person with five years' experience does not necessarily know what the standard of care is but also cautions that someone with over 20 years of experience can be far removed from actual practice as well. He added that it is important to focus on recent areas of expertise and not just the length of time they have been licensed.

Mr. Moore suggested a Board member to work with the ATF and staff to modify the existing Areas of Expertise form utilized to recruit experts to effectively capture their expertise. Ms. Eissler suggested sending them to each Board member in that area of practice.

Mr. Stockton noted that it seemed as if the ATF was indicating that actual experience was more important than total years. Ms. Eissler clarified that five years minimum licensure is a good start but the focus on how recent the experience was and how long have they had the experience.
Mr. Johnson suggested peer review as it is common in business practice.
Mr. Edwards addressed the Board during public comment. He believes the Board needs to raise the hourly rate of expert consultants.

B. Presentation regarding Sunset and Legislative Process
Mr. G.V. Ayers, Consultant for the Senate Business and Professions Economic Development Committee, introduced himself and described his responsibilities. He distributed and reviewed a hand out with the schedule of the Sunset Review for the next four years. He reported that the Board's report would be due in 2014 and the review and legislation would take place in 2015. The Committee will request a report by May of 2014. He explained that the request will ask questions and contain charts regarding the history of the Board, operations, licensing, enforcement, and examinations. The report will be submitted for review by November 1,

2014, and the Committee will provide the Board with questions and any issues that may arise. The hearing would take place in March 2015. It is an opportunity for the Board to make recommendations for changes. Mr. Ayers is concerned with the enforcement timeframes and understands that the Board does not have control over the entire process. He would like to make them more manageable.

Mr. Ayers does not anticipate it being difficult with the Board and applauds the direction that the Board is headed.

Mr. Silva inquired if there are examples of other boards' modifications. Mr. Ayers indicated that examinations are one example and whether staffing is adequate.

Mr. Silva added that the Out of State travel issue currently at the forefront. Mr. Ayers explained that it is very appropriate to meet with the committee to plan the best course of action. Sometimes the issues can be combined which can be good or bad.

C. BreEZe Status Update

Mr. Moore reported that the Phase I boards are progressing. The fingerprint requirements may force the Board to make a change to ATS before migrating to BreEZe. Mr. Donelson is working closely with the BreEZe team. Christine Lally with Board & Bureau Relations reported that Phase II is tentatively planned to go live September 2014.

IV. Enforcement

A. Enforcement Statistical Reports

Ms. Eissler reported that 50 investigations were completed in November. Half of those were over a year old. One of the reasons why some cases go 3-4 years is because of the length of time people take to respond.

Mr. Tami indicated that he is pleased with the numbers going down but it is nowhere near acceptable. He would like the ATF to look at the investigation process and determine if bundling related cases is a good idea. Mr. Josephson believes it is a threat to the public to have subjects continue to work during the investigation process. Mr. Moore encouraged the Board to focus on the 50 closed cases in November. The staff is very aware of the issues and his goal is to not have any over a year old by the Sunset Hearing. Mr. Silva inquired if there is a comparison with prior Sunset statistics. There may be a systematic problem. Ms. Jones Irish inquired whether or not protocols and processes have been evaluated by an outside source to ensure that the best practices are being employed. Mr. Moore noted that staff is working towards what is reasonable. He would like to present findings at the next Board meeting. President Zinn inquired about performance audits. Mr. Moore explained that they are

starting to identify where some of the issues are. There is some outside impact which they are trying to address and come up with a reasonable time frame. Mr. King shares everyone's concern but cautioned that it is important to understand that this is due process and due process takes time. Mr. Moore is trying to resolve this appropriately and efficiently.

Mr. Moore explained that he does not want to sound coercive with subjects by explaining their case will go the Attorney General's Office if they are not responding but also does not want to give the impression that it will go away if they do not respond. Ms. Jones Irish indicated she is interested in a consistent, uniform standard; if set in place appropriately, it would be defensible.

Mr. Josephson inquired about citations. Ms. Eissler explained that citations are public record and will be on the Board's website. They are informal enforcement actions and delegated to the Executive Officer to issue administrative citations that contain an order of abatement and an order to pay an administrative fine. If the person appeals the citation through the formal hearing process, then the Board sees them through the proposed decision. If the person does not appeal, they do not go before the Board. She further explained that when a citation is issued, a person has 30 days to appeal. If it is appealed the citation does not become final until all avenues of appeal are exhausted; if they do not appeal it, it becomes final at the end of the 30 days.

Mr. King noted that it may not necessarily be staff but systems improvement. While he understands that every case is different, it seems necessary to find gaps, eliminating waste of time, and becoming more efficient.

XI. Closed Session – Personnel Matters, Examination Procedures and Results, Administrative Adjudication, and Pending Litigation (As Needed) [Pursuant to Government Code sections 11126(a) and (b), 11126(c)(1), 11126(c)(3), 11126 (e)(1), and 11126(e)(2)(B)(i)]

A. Civil Litigation

1. Dennis William McCreary vs. Board for Professional Engineers, Land Surveyors, and Geologists, Sierra County Superior Court Case No. 7361
2. Thomas Lutge v. Board for Professional Engineers, Land Surveyors, and Geologists, Department of Consumer Affairs, Sacramento Superior Court Case No. 34-2012-80001329-CU-WM-GDS
3. Ruvin Grutman v. Board for Professional Engineers, Land Surveyors, and Geologists, Los Angeles Superior Court Case No. BS145675
4. Ruvin Grutman v. Board for Professional Engineers, Land Surveyors, and Geologists, Los Angeles Superior Court Case No. BS145796

XII. Open Session to Announce the Results of Closed Session

Ms. Eissler reported that during Closed Session the Board took action on a default decision, four proposed decisions, and three stipulations.

V. Exams/Licensing

A. Update on October 2013 Exams

Mr. Mathe addressed the Board on the October exam administration that went well. Results from NCEES and ASBOG were received earlier than in the past but are not ready to be released until the state results are available. The recommended cut scores are expected today and will be finalized next week. He is hoping results will be released during the following week. At that time the examination statistics will be posted on the Board's website. Mr. Josephson reported the Structural exam is being graded the following day.

Computer Based Testing for the FE and FS exams will start in January.

Mr. Moore explained that OPES has concerns for the California specific certified engineering geologist exam, the certified Hydrogeologist exam, and the geophysicist exam primarily due to very few Subject Matter Experts to work on the examinations. Ms. Smith is constantly trying to recruit with great difficulty. Mr. Tami asked why they are not participating. President Zinn indicated that he would help in the recruiting process by contacting various agencies for assistance.

VI. Approval of Delinquent Reinstatements

MOTION: Mr. King and Mr. Satorre moved to approve.
VOTE: 9-0, Motion passed

VII. Consideration of Rulemaking Proposals

A. Update on Board Rules 420.1 and 3021.1 (16 CCR 420.1 and 3021.1), Engineers, Land Surveyors, Geologists, and Geophysicists Applicants Fingerprints

C. Update on Board Rules 442 and 3035 (16 CCR 442 and 3035) Examination Subversion

D. Update on Board Rules 411, 412, 3008, and 3009 (16 CCR 411, 412, 3008, and 3009), Engineers, Land Surveyors, Geologists, and Geophysicists Seal, Signature, and Address Change

Mr. Kereszt, Enforcement Analyst for the Board reported that the rulemaking packages for Items A, C, and D in the agenda package have been formally approved, and the amendments will be effective January 1, 2014.

B. Update on Board Rules 416 and 3060 (16 CCR 416 and 3060) (Substantial Relationship Criteria)
Ms. Eissler explained that an update to the substantial relationship criteria regulation that the Board discussed will be provided at next Board meeting.

VIII. Administration

A. FY 2013/14 Budget Overview
Mr. Alameida reported on the budget overview contained in the agenda. He explained that expenditures for the engineers and land surveyors fund have increased versus last Fiscal Year as a result of increased contract costs with Prometric. He also indicated that overall, the Board is generating more revenue than allocated expenses and is projected to have a surplus at the end of the year. Applications have increased mainly due to EIT and LSIT continuous filing.

As for the geologist and geophysicists expenditures, they remain consistent with the last Fiscal Year, and contracting with OPES is ongoing for occupational analysis of the state examinations. Applications have increased for GIT, PG, CEG, and CHG. Revenue at year-end should remain consistent with historical averages.

B. Out-of-state Travel Update
Mr. Moore distributed a copy of a letter written to the Agency Undersecretary in an attempt to set up a meeting to discuss out-of-state travel. He met with Denise Brown, DCA's Director, to solicit her assistance and discussed ideas that could place this issue in a mission critical position. The Agency Undersecretary indicated that he would review the information. Mr. Moore will continue communication with Agency and DCA and keep Board members informed.

Christine Lally reported that the Governor's Office changed its process within the last six months and delegated more authority to the Agency Secretary to approve.

IX. Technical Advisory Committees (TACs)

A. Board Assignments to TACs
Mr. Moore indicated that traditionally there are two Board members assigned to each TAC; a licensed member and a public member. He does not believe there are any public members and suggested President Zinn assign some members as it helps ground the TAC. Mr. Silva indicated that he is on the geology TAC. Mr. King will consider the land surveying TAC, Ms. Jones Irish will consider the structural, and President Zinn will contact Ms. Hamwi for the Structural TAC.

Mr. Moore announced that the Structural TAC will meet December 19 and the Geology TAC will meet January 14.

B. Appointment of TAC Members
No report given

C. Reports from the TACs
No report given

X. Liaison Reports

A. ASBOG

President Zinn reported that he attended a Subject Matter Expert Workshop and ASBOG requested more participation from the California Board. The exams looked good and he feels confident that the exam is appropriate for California.

He also reported that they are coordinating an increase awareness of licensure. ASBOG has done work in this regard and President Zinn, Mr. Moore, and Mr. Phayer are interacting with ASBOG to acquire a booth at the next conference to help facilitate this measure.

B. ABET

Mr. Stockton reported that the process went well and was informative. He expressed his concern with the aging of professors.

C. NCEES

1. Patrick Tami - Nomination for Western Zone VP

MOTION: Mr. Satorre and Mr. Stockton moved to nominate Mr. Tami to NCEES Western Zone Vice-President.
VOTE: 8-0-1, Motion passed, Mr. Tami abstained

Mr. Josephson reported that NCEES is having a structural item writing in San Francisco January 10-11. They are soliciting structural engineers within a 150 mile radius of San Francisco.

Mr. Moore reported that NCEES is looking for judges for the Future City program, specifically licensed land surveyors. It will take place January 25 in San Jose and San Bernardino. They are also searching for virtual judges for engineering.

Mr. Phayer, outreach analyst for the Board, reported that NCEES is promoting the engineering award program booklet. The Board will be receiving 200 copies for distribution to various colleges and universities.

D. Technical and Professional Societies

Mr. Moore and Mr. Mathe attended a CLSA chapter meeting in Modesto where they tried out a new presentation that was geared to generate discussion regarding the Board's Enforcement Program vs. the Professional Practices Committees of CLSA in an attempt to set up collaboration. It was well received.

XI. President's Report/Board Member Activities

President Zinn welcomed Eric Johnson to the Board and reported that Michael Modugno's term expired and wanted to convey his appreciation to Mr. Modugno.

Mr. Silva would like to know the number of letters of recognition sent to engineers for years of service. Mr. Moore will provide those numbers.

XII. Approval of Consent Items

(These items are before the Board for consent and will be approved with a single motion. Any item that a Board member wishes to discuss will be removed from the consent items and considered separately.)

A. Approval of the Minutes of the October 10, 2013, Board Meeting

MOTION: Mr. Silva and Mr. Josephson moved to approve with correction.

VOTE: 9-0, Motion passed

Ms. Jones Irish would like to see a summary and status of requests to staff for tracking purposes.

XIII. Other Items Not Requiring Board Action

The next Board meeting is scheduled for February 12 and 13, 2014 in San Diego.

XIV. Adjourn

Meeting adjourned at 4:00 p.m.

PUBLIC PRESENT

Bob DeWitt, ACEC
Michael Edwards
Steve Hao, CalTrans
Don Schinske, SEAOC
Garry Maurath, AEG
Roger Hanlin, CLSA
G.V. Ayers, Senate BP&ED
Craig Copelan, PECG
Christine Lally, Board & Bureau Relations

XV. OTHER ITEMS NOT REQUIRING BOARD ACTION

XVI. **Hearing on the Petition for Reinstatement of Revoked License of Levi Rodriquez**
This hearing will be held on Thursday, February 13, 2014, beginning at 9:00 a.m., or as soon thereafter as the matter may be heard.

XVII. **CLOSED SESSION** Administrative Adjudication [Pursuant to Government Code section 11126(c)(3)]
This Closed Session will be held immediately following the hearing.

XVIII. ADJOURN