Association of
PROFESSIONAL ENGINEERS & GEOSCIENTISTS
of British Columbia

APEGBC Council Meetings

Friday, April 28, 2017

Location:

Dan Lambert Boardroom, 2nd Floor (Large Room, Upstairs)
APEGBC Offices, 200 – 4010 Regent Street, Burnaby, BC

Meeting Schedule:

08:30 – 09:55	**Closed Session**
09:55 – 10:10	Morning Break
10:10 – 12:10	**Open Session**
12:10 – 13:10	Lunch
13:10 – 14:30	**Open Session (continued)**
14:30 – 14:45	Break between sessions
14:45 – 15:45	**In-Camera Session**

For more information, contact Sarah Wray at swray@apeg.bc.ca or 604.412.4896.

Association of
PROFESSIONAL ENGINEERS & GEOSCIENTISTS
of British Columbia

Council Agenda – Open Session

Friday, April 28, 2017
Dan Lambert Boardroom, 2nd Floor (Large Room, Upstairs)
APEGBC Offices, 200 – 4010 Regent Street, Burnaby, BC
10:10 – 14:30

10:10 (5 min) **4. OPEN SESSION CALL TO ORDER**

Chair: Bob Stewart, P.Eng. President

4.1. Declaration of Conflict of Interest

10:15 (20 min) **5. OPEN CONSENT AGENDA**

MOTION: That Council approve all items (5.1 to 5.7) on the Open Consent Agenda.

5.1. February 10, 2017 Open Minutes — Open Minutes Feb 10, 2017

MOTION: That Council approve the February 10, 2017 Open Meeting minutes as circulated.

5.2. Appointments Approval

MOTION: That Council approves the recommended appointments and re-appointments to APEGBC Volunteer Groups and to outside Organizations, as applicable.

5.3. Policy Update Regarding Enhanced Member-in-Training Program — Policy on Enhanced MIT Program

MOTION: That Council approve the updates to the Policy and Procedure on Academically Qualified Applicant Profiles and Review of Experience.

Cassandra Hall, P.Geo./P.Eng., Chair of the Registration Committee

5.4. P.Tech. to Eng.L. Bridging — P.Tech. to Eng.L. Bridging

MOTION: That Council approve the P.Tech. to Eng.L. Bridging Strategy.

Cassandra Hall, P.Geo./P.Eng., Chair of the Registration Committee

5.5. Update Registration Committee Terms of Reference — Reg Comm TOR

MOTION: That Council approve the updates to the Registration Committee Terms of Reference

Governance Committee

5.6. Extend Accredited Employer Training Program Pilot — Extend Accred Training Program

MOTION: That Council approve the pilot phase for the Accredited Employer Member-in-Training Program be extended by one year to March 2018.

Cassandra Hall, P.Geo./P.Eng., Chair of the Registration Committee

5.7. Information Reports

5.7.1. CEO & Registrar Report — CEO & Registrar Rpt

Ann English, P.Eng., CEO & Registrar

5.7.2. Branch Engagement Report — Branch Engagement Rpt

Deesh Olychick, Director of Member Services

5.7.3. Corporate Engagement Report — Corporate Engagement Rpt

Megan Archibald, Director of Communications & Stakeholder Engagement

5.7.4. Piloting of Engineering Competencies for Limited Licence (Eng.L.) — Eng.L. Pilot

Cassandra Hall, P.Geo./P.Eng., Chair of the Registration Committee

5.7.5. Fairness Panel Annual Report — Fairness Panel

John Watson, P.Eng., FEC, FGC (Hon.), Chair of the Fairness Panel

Phil Sunderland, P.Eng., FEC, FGC (Hon.)

Garth Kirkham, P.Geo., FGC, FEC (Hon.)

5.7.6. Branch Terms of Reference — Branch TOR

Deesh Olychick, Director of Member Services

5.7.7. Engineers Canada Director's Report — EC Report

Russ Kinghorn, P.Eng., FEC, FGC (Hon.), APEGBC Director to Engineers Canada

Jeff Holm, P.Eng., FEC, FGC (Hon.), APEGBC Director to Engineers Canada

5.7.8. Geoscientists Canada Director's Report — GC Report

Garth Kirkham, P.Geo., FGC, FEC (Hon.), APEGBC Director to Geoscientists Canada

5.7.9. Investigation & Discipline Status Report — I&D Report

Paul Adams, P.Eng., FEC, Chair of the Discipline Committee

Neil Nyberg, P.Eng., FEC, Chair of the Investigation Committee

5.7.10. Enforcement Report — Enforcement Report

Efrem Swartz, LLB, Director of Legislation, Ethics, and Compliance

5.7.11. APEGBC Road Map for 2016/2017 — Road Map - Update

Ann English, P.Eng., CEO & Registrar

5.7.12. Council Attendance Summary — Council Attendance - Update

Ann English, P.Eng., CEO & Registrar

10:35 **6. OPEN REGULAR AGENDA**

MOTION: That Council approve the Open Regular Agenda (with any additions from the Consent Agenda).

10:35 (45 min) **6.1.** APEGBC Three Year Budget Draft — APEGBC Three Year Budget Draft

MOTION: That Council approve the FY2018 APEGBC operating and capital budget, FY2019 & FY2020 proforma budget as presented.

Executive Committee

Jennifer Cho, CPA, CGA, Director of Finance & Administration

11:20 (20 min) **6.2.** Recommendations and Next Steps: Corporate Practice — Recommendations & Next Steps

MOTION: To be determined.

Mike Currie, P.Eng., FEC, Chair of the Advisory Task Force on Corporate Practice

11:40 **6.3.** AGM Motions

11:40
(15 min)

6.3.1. Climate Change Advisory Group's Response to the AGM Motion

CCAG Response

MOTION: That Council confirm, in response to the 2016 APEGBC AGM motion regarding net zero emissions, the following current work being carried out under the direction of the CCAG should continue as it meets the intent of the AGM motion:

1. **The development and revision of relevant Professional Practice Guidelines, delivery of relevant continuing professional development events, relevant conference offerings and other events;**
2. **The highlighting of members' employers who are developing net zero approaches in their practices; and,**
3. **The consideration of APEGBC working towards net zero emissions with the initial step being to undertake an audit of APEGBC office energy use and carbon emissions.**

Harshan Radhakrishnan, P.Eng., Practice Advisor, Professional Practice, Standards, and Development

11:55
(15 min)

6.3.2. Publishing Voter Turnout by Branch

Voter Turnout

MOTION: That Council approve publishing voter turnout by branch periodically during the election period as a pilot for the 2017/18 election.

Governance Committee

12:10
(60 min)

Break for Lunch

13:10
(30 min)

6.3.3. Publication of Petitions

Publication of Petitions

MOTION: That Council shall endeavour to publish as many petitions as possible, but retain the ability to exercise discretion in determination of whether to publicize 25 member petitions.

Executive Committee

13:40
(30 min)

6.4. Questions and Answers with Council Candidates

Q&A

MOTION: That Council delegate the decision for incorporating Q&A in the 2017 Council election and if included, the selection of questions to a sub-committee of Council consisting of the following members: Bob Stewart, P.Eng., Suky Cheema, CPA, CA, Ken Laloge, CPA, CA, TEP, John Turner, P.Ag. (ret), David Wells, JD, and _____ and _____.

Deesh Olychick, Director of Member Services

14:10
(20 min)

6.5. Policy on Guests Requesting to Appear and Address Council at a Meeting

Policy on Guests

MOTION: That Council approve the policy regarding Guests Appearing Before Council as recommended by the Governance Committee

Efrem Swartz, LLB, Director of Legislation, Ethics, and Compliance

14:30
(15 min)

End of Open Session and Break Before In-Camera Session

In-Camera session to commence at 14:45.

MINUTES OF THE OPEN SESSION OF THE THIRD MEETING OF THE 2016/2017 COUNCIL of the Association of Professional Engineers and Geoscientists of British Columbia, held on FEBRUARY 10, 2017 in the DAN LAMBERT BOARDROOM, APEGBC OFFICES, BURNABY, BC

PRESENT

Council	
Bob Stewart, P.Eng.	President (Chair)
Dr. Ed Casas, P.Eng.	Vice President
Dr. Mike Wrinch, P.Eng., FEC, FGC (Hon.)	Past President
Kathy Tarnai-Lokhorst, P.Eng., FEC	Councillor
David Wells, JD	Councillor
Richard Farbridge, P.Eng.	Councillor
Ken Laloge, CPA, CA, TEP	Councillor
John Turner, P.Ag. (ret.)	Councillor
Brock Nanson, P.Eng.	Councillor
Caroline Andrewes, P.Eng.	Councillor
Susan Hayes, P.Eng.	Councillor
Ross Rettie, P.Eng., FEC	Councillor
Staff	
Ann English, P.Eng.	Chief Executive Officer & Registrar
Tony Chong, P.Eng.	Chief Regulatory Officer & Deputy Registrar
Janet Sinclair	Chief Operating Officer
Gillian Pichler, P.Eng.	Director - Registration
Mark Rigolo, P.Eng.	Associate Director – Engineering Admissions, Registration
Efrem Swartz, LLB	Director - Legislation, Ethics & Compliance
Peter Mitchell, P.Eng.	Director – Professional Practice, Standards & Development
Taymaz Rastin	Staff Lawyer
Lindsay Steele, P.Geo.	Associate Director – Professional Practice, Standards & Development
Melinda Lau	Acting Director – Communications & Stakeholders Engagement
Deesh Olychick	Director – Member Services
Sarah Wray	Executive Assistant to Council and to the Chief Executive Officer & Registrar
Tracy Richards	Administrative Assistant
Guests	
Russ Kinghorn, P.Eng., FEC, FGC (Hon.)	APEGBC Director to Engineers Canada
Jeff Holm, P.Eng., FEC, FGC (Hon.)	APEGBC Director to Engineers Canada
Regrets	
Suky Cheema, CPA, CA	Councillor
Cassandra Hall, P.Geo., P.Eng.	Councillor
Larry Spence, P.Eng.	Councillor
Scott Martin, P.Eng.	Councillor
Chris Moser, P.Eng.	Councillor

OPEN SESSION – CALL TO ORDER

Bob Stewart, President and Chair, called the meeting to order at 09:05 am. Dr. Ed Casas, Vice President, acted as the Parliamentarian, Councillor Ross Rettie acted as the Membership Engagement Champion, and Councillor Kathy Tarnai-Lokhorst acted as the 30 by 30 Champion. Councillors Suky Cheema, Chris Moser, Larry Spence, Scott Martin, and Cassandra Hall sent their regrets.

Guests: The Chair advised that Russ Kinghorn, P.Eng., FEC, FGC (Hon.) and Jeff Holm, P.Eng., FEC, FGC (Hon.) of Engineers Canada would be joining for the Closed Session. Brian Carr, ASTTBC Public Representative would also be joining lkejw;largGarth Kirkham, P.Geo., FGC, FEC (Hon.) sent his regrets.

CO-17-28 <u>OPEN CONSENT AGENDA</u>

MOTION: **It was moved and seconded that the Open Consent Agenda be approved with item 4.3 (APEGBC Professional Practice Guidelines – Flood Mapping in BC) being moved to the Open Regular Agenda.**
CARRIED

Motions carried by approval of the Consent Agenda:

4.1 **MOTION** that Council approve the November 25, 2016 Open Meeting minutes as circulated.

4.2 **MOTION** that Council approves the recommended appointments and reappointments to APEGBC Volunteer Groups and to outside Organizations, as applicable.

Individual, Designation	Position	APEGBC Volunteer Group/Outside Organization	Staff Contact	Start Date	Expiry Date	New/Returning * Over 6 Years
Re-appointments (under six years)						
John Watson, P.Eng., FEC, FGC (Hon.)	Chair	Fairness Panel	Mark Rigolo	February 14, 2017	February 14, 2019	Returning
Edwin Harrington, P.Eng.	Member	Investigation Committee	Efrem Swartz	February 13, 2017	February 13, 2019	Returning
Richard Herfst, P.Eng., Struct.Eng.	Member	Investigation Committee	Efrem Swartz	February 13, 2017	February 13, 2019	Returning
Randal Cullen, P.Geo.	Member	Investigation Committee	Efrem Swartz	February 13, 2017	February 13, 2019	Returning
Bruce Nicholson, P.Eng.	Member	Discipline Committee	Efrem Swartz	April 17, 2017	April 17, 2019	Returning
Ronald Yaworsky, P.Eng.	Member	Discipline Committee	Efrem Swartz	April 17, 2017	April 17, 2019	Returning
Edward Bird, P.Eng.	Member	Discipline Committee	Efrem Swartz	April 17, 2017	April 17, 2019	Returning
Peter Bobrowsky, P.Geo.	Member	Discipline Committee	Efrem Swartz	April 17, 2017	April 17, 2019	Returning

Roz Nielsen, P.Eng.	Member	Discipline Committee	Efrem Swartz	April 17, 2017	April 17, 2019	Returning
Jason Allan Watt, P.Eng.	Member	Building Codes Committee	Peter Mitchell	February 1, 2017	February 1, 2019	Returning
Dr. Brian Peter Menounos, P.Geo.	Member	Climate Change Advisory Group	Harshan Radhakrishnan	February 14, 2017	February 14, 2019	Returning
Glen Douglas Shkurhan, P.Eng.	Member	Climate Change Advisory Group	Harshan Radhakrishnan	February 14, 2017	February 14, 2019	Returning
Glen Edward Parker, P.Eng.	Member	Climate Change Advisory Group	Harshan Radhakrishnan	February 14, 2017	February 14, 2019	Returning
Gordon D. McDonald, P.Eng.	Member	Consulting Practice Committee	Lindsey Steele	February 1, 2017	February 1, 2019	Returning
Vijayanand Gurusiddappa Kullar, P.Eng., FEC	Member	Sustainability Committee	Harshan Radhakrishnan	December 10, 2016	December 10, 2018	Returning
Geoffrey Leonard Karcher, P.Eng.	Member	Sustainability Committee	Harshan Radhakrishnan	March 9, 2017	March 9, 2019	Returning
Matt Zieleman, EIT	Member	APEGBC Editorial Board	Melinda Lau	February 14, 2017	February 13, 2019	Returning
William W. Grainger, P.Geo., Eng.L.	Member	ABCFP/APEGBC Joint Board	Peter Mitchell	February 13, 2017	February 13, 2019	Returning
Hamid Ghanbari, P.Eng.	Member	CPD Committee	Deesh Olychick	February 13, 2017	February 13, 2019	Returning
Mark Adams, P.Eng.	Member	CPD Committee	Deesh Olychick	February 13, 2017	February 13, 2019	Returning
New Appointments and Re-Appointments (over six years)						
David Wells, JD	Member	Foundation Nominating Committee	Melinda Lau	November 7, 2016	October 21, 2017	New
Suky Cheema, CPA, CA	Member	Foundation Nominating Committee	Melinda Lau	November 7, 2016	October 21, 2017	New
David Wells, JD	Member	Professional Practice Committee	Peter Mitchell	November 7, 2016	October 21, 2017	New
Suky Cheema, CPA, CA	Member	Audit Committee	Jennifer Cho	November 7, 2016	October 21, 2017	New
To be determined	Member	Canadian Engineering Accreditation Board	Ann English	July 1, 2017	June 30, 2020	New
Daniel Kunimoto, P.Eng.	Member	Investigation Committee	Efrem Swartz	February 10, 2017	February 10, 2019	New

Peter Helland, P.Eng.	Member	Investigation Committee	Efrem Swartz	February 10, 2017	February 10, 2019	New
Rajib Ahsan, P.Eng.	Member	Discipline Committee	Efrem Swartz	February 10, 2017	February 10, 2019	New
Paul Adams, P.Eng., FEC	Chair	Discipline Committee	Efrem Swartz	April 17, 2017	April 17, 2019	*Over 6 years
Neil Cumming, P.Eng.	Member	Discipline Committee	Efrem Swartz	April 17, 2017	April 17, 2019	*Over 6 years
Henrik Kristiansen, P.Eng.	Member	Investigation Committee	Efrem Swartz	February 10, 2017	February 10, 2019	New
Patrick Kam-Wah Shek, P.Eng., FEC	Member	Building Enclosure Committee	Peter Mitchell	February 1, 2017	February 1, 2019	*Over 6 years
Sean Bing-Hsin Liaw, P.Eng., FEC	Member	Building Enclosure Committee	Peter Mitchell	February 1, 2017	February 1, 2019	*Over 6 years
Leslie Brian Burra Peer, P.Eng., FEC	Member	Building Enclosure Committee	Peter Mitchell	February 1, 2017	February 1, 2019	*Over 6 years

4.3 **This item was moved to the Open Regular Agenda.**

4.4 The following informational reports were received by Council:

- CEO & Registrar Report
- Engineers Canada Director's Report
- Geoscientists Canada Director's Report
- Brand Development Update
- Update on Volunteer Orientation
- Update on Diversity Initiatives
- Investigation and Discipline Committee Report
- APEGBC Road Map for 2016/2017
- Council Attendance Summary
- Calendar 2016 Registration Admissions Report
- Strategic Plan and Key Performance Indicator Results at the 6 Month Mark for Year 3
- Update on National Competency-Based Assessment Project

CO-17-29 <u>OPEN REGULAR AGENDA</u>

MOTION **It was moved and seconded that Council approve the Open Regular Agenda with the addition of item 4.3 from the Open Consent Agenda. CARRIED**

CO-17-30 QUARTERLY FINANCIAL REPORT

MOTION **It was moved and seconded that Council receive the APEGBC financial results as at December 31, 2016.**
CARRIED

CO-17-31 COUNCILLOR NOTICE OF MOTION

MOTION **It was moved and seconded that Council establish a Task Force, with broad disciplinary representation, to develop for Council consideration a renewed strategy for the Continuing Professional Development of the membership, one that articulates the objectives, assesses realistically the strengths and weakness of alternative approaches to achieving these objectives, recognizes the diversity of disciplines, modes of practice, public safety implications and circumstances of members, and relies on membership support for implementation.**
DEFEATED

MOTION **It was moved and seconded that Council postpone the motion for consideration until the next Council meeting.**
DEFEATED

CO-17-32 COUNCILLOR NOTICE OF MOTION

MOTION **It was moved and seconded that Council establish a Council Working Group to develop, for Council consideration, a strategy to rebuild the trust and respect of all sectors of the APEGBC membership.**
CARRIED

CO-17-33 ELECTION POLICY REVISIONS

MOTION **It was moved and seconded that Council approve the election policy with item 21 amended as follows: 'An external web link may only be included in the designated section of the candidate statement form'.**
CARRIED

CO-17-34 NOMINATION AND ELECTION REVIEW TASK FORCE

MOTION **It was moved and seconded that Council approve the creation of the Nomination and Election Review Task Force.**
CARRIED

MOTION **It was moved and seconded that Council approve the terms of reference for the Nomination and Election Review Task Force.**
CARRIED

CO-17-35 APEGBC PROFESSIONAL PRACTICE GUIDELINES – FLOOD MAPPING IN BC

MOTION **It was moved and seconded that Council approve the APEGBC Professional Practice Guidelines – Flood Mapping in BC for final editorial and legal review prior to publication.**
CARRIED

CO-17-36 NEW AGENDA ITEM

MOTION **It was moved and seconded that Council add a new agenda item to discuss CPD Engagement.**
CARRIED

CO-17-37 CPD PROGRAM DEVELOPMENT AND MEMBER ENGAGEMENT

MOTION **It was moved and seconded that Council directs staff to present a plan for CPD program development and member engagement at the April 28 meeting of Council. The plan should be modelled on the process followed for corporate regulation consultation.**
CARRIED

END OF OPEN SESSION

The Open Session ended at 2:01 pm.

Date: April 12, 2017

Report to: **Council for Decision**

From: Cassandra Hall, P.Eng./P.Geo. - Chair, Registration Committee

Subject: Policy Update Regarding Enhanced Member-in-Training Program

Linkage to Strategic Plan: Objective: Support potential members in acquiring the competencies required for professional registration.

Purpose:	Update the *Policy and Procedure on Academically Qualified Applicant Profiles and Review of Experience* to enable expedited evaluation of qualified EITs participating in the Enhanced Member-in-Training Program.
Motion:	that Council approve the updates to the *Policy and Procedure on Academically Qualified Applicant Profiles and Review of Experience*

Background

In April 2014, Council endorsed two programs aimed at enabling expedited review of the competencies of Members-in-Training (MITs) who have a high probability of having a Low Risk Referee profile due to advanced preparation and guidance in completion of their competency-based assessments. A Low Risk Referee Profile[1] is a statistically proven factor in defining an applicant who has a high probability of having successfully completed the experience or competency requirements for registration as a professional engineer.

Participation in the two programs is currently limited to Engineers-in-Training (EITs), as competency-based assessment of qualifying experience for registration is only available to engineering applicants. The programs are:

a. the Accredited Employer MIT Program whose graduates are recommended for registration by an employer-based competency assessor panel and are subject to program audit requirements. This program has just concluded a successful first year of a pilot; and

[1] Low Risk Referee Profile:
• outstanding references and/or validator assessments and comments from professional engineers:
  i. at least one of whom is a recent P.Eng. supervisor; and
  ii. at least 2 of whom are in the same discipline as the applicant.

b. the new Enhanced MIT Program for EITs who are not part of an accredited employer program. This program seeks to support EIT's who may not have sufficient employer- or supervisor-based guidance. Structured meetings, Interaction and guidance from a professional engineer who is a trained 'Registration Mentor' can allow the EITs to complete the experience competencies required for registration with confidence in their acceptability to APEGBC. It is expected that program 'graduates' have a high probability of meeting the Low Risk profile and qualifying for expedited assessment of their competencies. .

   In partnership with APEGBC's existing Mentoring Program, a new "Registration Mentor" category has been developed, allowing EITs to apply to enter into a mentoring relationship with a professional engineer mentor.

   All Registration Mentors:

   a. are registered or licensed as professional engineers with APEGBC;
   b. are appointed APEGBC volunteers who have received specific training in current registration policies as well as the APEGBC Competency Framework and online reporting system;
   c. are in the same discipline or area of practice as the Member in Training; and
   d. have compulsory recorded meetings with their Member in Training over a minimum two year period prior to the MIT's application for registration and submission of the completed competency-based assessment; and
   e. may act as a validator/referee for the MIT in the competency assessment system if needed.

   Enhanced Member-in-Training Program Members have:

   a. active Member-in-Training memberships with APEGBC
   b. documented experience on APEGBC's Competency Reporting System
   c. active mentee status as part of APEGBC's Mentoring Program and have been assigned a Registration Mentor who shares the same discipline or area of practice as the member-in-Training (Registration Mentors are trained APEGBC P.Eng./P.Geo. volunteers)
   d. been in a mentoring relationship with the Registration Mentor for at least a period of two years or more
   e. to submit a record of quarterly meeting logs (using APEGBC forms) that are verified and signed off by their Registration Mentor and that show structured meetings with discussions focused on APEGBC's Competency Framework.

   Since the onset of the program and partnering in late 2016, 51 P.Eng. mentors have completed the Registration Mentor training and 275 EITs have signed up as mentees.

Discussion

To enable expedited review of Engineer-in-Training 'graduates' of both programs, a new category of Low Risk applicant must be defined for the Enhanced MIT Program graduates in the *Policy and Procedure on Academically Qualified Applicant Profiles and Review of Experience*. The policy and procedure sets out risk-based screening of applicants to provide appropriate levels of review based on the risk profile of an applicant.

Proposed updates to the policy are to:

1) recognize that Accredited Employer MIT Program graduates have a Low Risk profile by definition and to include them in that category in the policy;
2) define a modified Low Risk profile for Enhanced MIT program participants that allows a trained in-discipline Registration P.Eng. Mentor to substitute for, if necessary, for one of the three required P.Eng. validator/referees:
    a. a current P.Eng. supervisor; or
    b. one of the in-discipline P.Eng. validator/referees; and
3) a housekeeping change to add terminology to recognize that referees/references are designated as validators/validator assessments and comments in the competency assessment system.

A redlined version of the policy is attached in Appendix A.

Recommendation

That Council approve the updates to the *Policy and Procedure on Academically Qualified Applicant Profiles and Review of Experience*.

Appendix A – Redlined Version of proposed updated *Policy and Procedure on Academically Qualified Applicant Profiles and Review of Experience*.

Date: April 12, 2017

Report to: **Council for Decision**

From: Cassandra Hall, P.Eng./P.Geo.
Chair, Registration Committee

Subject: P.Tech. to Eng.L. Bridging Strategy

Linkage to Strategic Plan: Support potential members in acquiring the competencies required for professional registration.

Purpose:	Confirm the strategy for bridging from ASTTBC P.Tech. to APEGBC Eng.L.
Motion:	That Council approve the P.Tech. to Eng.L. Bridging Strategy.

Background

ASTTBC has been discussing with APEGBC whether advanced consideration for Limited Licence qualification could be given to holders of its Professional Technologist (P.Tech.) designation (implemented March 2016 and on hold pending development of new qualification criteria). ASTTBC's Registrar, Charles Joyner and Gillian Pichler have been discussing the differences between the qualifications required for the two designations, what a bridging program from P.Tech. to Eng.L. would entail and whether a joint application process could be developed.

During these discussions, it was agreed that if a P.Tech. to Eng.L. bridging process were developed, it would include at a minimum a 'laddering' requirement for applicants to prove competency to practice in a limited scope of practice for the purpose of gaining independent practice in professional engineering. For comparison with the experience and competency requirements for Eng.L.., ASTTBC has provided a redacted competency submission for an APEGBC Eng.L. who applied and received their P.Tech. designation.

For the purposes of better alignment with Alberta's P.Tech. which grants an independent scope of practice in professional engineering under the Engineering and Geoscience Professions Act; and to better enable a bridging program to APEGBC's Eng.L., ASTTBC's Council has been considering proposals to upgrade several of its P.Tech. criteria. The upgrades include requiring completion of the Professional Practice Examination (multiple choice section) and that references include professional engineers. If these were put in place, the remaining criteria to bridge to Eng.L. would be completion of the Professional Practice Examination essay and the Professional Engineering and Geoscience Practice in BC Seminar, and an approved scope of practice with proof of competency to practise professional engineering within the limitations of that scope.

A table with comparison of requirements for a new Eng.L. applicant, a P.Tech. applying for Eng.L. and an Alberta P.Tech. applying for Eng.L. is in Appendix A.

Discussion

The Limited Licence Subcommittee has considered the question of evaluating the competency of ASTTBC Professional Technologists applying for Eng.L. licence and whether there is an expedited path available to Eng.L. based on the competencies presented to ASTTBC for P.Tech qualification.

The Subcommittee concluded that because of the limited professional engineering scope of the Eng.L . versus the discipline-based P.Tech.; and because the two competency systems are disparate, there isn't a reasonable way to map the two systems for the purposes of laddering from P.Tech. to Eng.L.

The Limited Licence Subcommittee and Registration Committee have recommended a strategy for bridging from the ASTTBC P.Tech. to the APEGBC Eng.L as follows:

- the dialogue with ASTTBC continue under the following considerations:
    - The P.Tech. competency assessment will not be taken into account for Eng.L. applicants as it is not scope-specific, nor is it based on APEGBC required competencies
    - All Eng.L. applicants, should complete a APEGBC competency-based assessment that addresses their competence to practice in the proposed limited scope; and
    - the possibility of applying for P.Tech. and Eng.L. at the same time; and a joint interview process with ASTTBC for P.Tech. applicants who have concurrently completed applications for P.Tech. and Eng.L should be explored.

Recommendation

That Council approve the P.Tech. to Eng.L. Bridging Strategy.

Appendix A – Diagram comparing entry to Eng.L. requirements from different cohorts including ASTTBC P.Tech.

Date: April 11, 2017

Report to: **Council for Decision**

From: Governance Committee

Subject: Updates to Registration Committee Terms of Reference

Linkage to Strategic Plan: Continue to Implement Best Practices in Governance

Purpose:	Update the Registration Committee Terms of Reference to include suggested changes by the Registration Committee and Council and to align with current policy.
Motion:	That Council approve the updates to the Registration Committee Terms of Reference

Background

The Registration Committee ('the Committee') Terms of Reference were last updated by Council in November 2014.

Since then:

i. a recommendation has been made to reflect current practice and manage volunteer workload by reducing the number of Members of Council on the Committee from five to four (recommended by President Mike Wrinch in November 2015 and endorsed by the Committee)

ii. as Members of Council appointed to the Committee may not be able to take on the role of Chair, the Governance Committee recommended that the Chair be appointed by Council; and that the requirement for the Chair to be a Member of Council be removed. A consequential change to the Vice-Chair role has also been made to remove the requirement for the Vice-Chair to be a past or current Member of Council;

iii. in February 2016, Council approved a change to the Looking-to-Exempt Policy for Engineering Applicants, necessitating a consequential change to the wording in the 'Non-Contentious' list of low risk items that can be approved by the Director, Registration or the Associate Director, Engineering Admissions, acting as members of the Committee for this purpose;

iii. In August 2016, the Registration Committee endorsed adding return to practice applications where competency and character are not in question, to the 'Non-Contentious' list; and

iv. In September 2016, Council delegated the adjudication of oral registration admission hearings to the Registrar, requiring a consequential change to the wording of the Terms of Reference.

Discussion

Clean and redlined versions of the Committee's Terms of Reference are attached in Appendices A and B respectively.

Recommendation

That Council approve the updates to the Registration Committee Terms of Reference.

Appendix A – Clean version of proposed updated Registration Committee Terms of Reference

Appendix B – Redlined Version of proposed updated Registration Committee Terms of Reference

Date: April 12, 2017

Report to: **Council for Decision**

From: Cassandra Hall, P.Geo./P.Eng., Chair, Registration Committee

Subject: Extend Accredited Employer MIT Training Program Pilot

Linkage to Strategic Plan: Goal 1: Members and Future Members
Goal 2: Members Employer's and Clients

Purpose:	To report back to Council regarding the progress of the Accredited Employer Member-in-Training Program after the conclusion of the one year pilot phase.
Motion:	That Council approve the pilot phase for the Accredited Employer Member-in-Training Program be extended by one year to March 2018.

Background

In April 2014, Council endorsed in principle for implementation by APEGBC, five recommended promising practices, as detailed in the final report of the Special Task Force on Alternative Admissions and Registration Systems.

One of the five recommendations was to implement an Accredited Employer Training Program, based on the competency assessment framework, whereby engineering and geoscience employers will be able to create their own training programs and apply to have the programs accredited by APEGBC. Applicants who have completed their training through an accredited training program will join the Low Risk Expedited Review (LRE) registration pathway and therefore not have their applications scrutinized as closely as others. APEGBC will only need to check a percentage of applications from accredited training programs as part of an accreditation auditing process.

On February 13, 2015 Council passed two motions approving the framework for the APEGBC Accredited Employer Member-in-Training (MIT) Program as well as the Pilot Project Plan.

Discussion

As per the timeline in the project plan, the pilot was initiated in late 2015 and upon conclusion of a full year, the results were to be reported to Council for possible consideration in establishing the program as a permanent one within APEGBC's Registration Department. Currently, a total of nine companies have received provisional accreditation with several more currently going through the accreditation process.

Initial Pilot Companies (2015)	Newly added Companies (2016/2017)
Integral Group	Aplin Martin
Ministry of Transportation & Infrastructure	Dynamic Structures
Omicron	Fast + Epp
COWI Bridge North America	AES Engineering
	Glotman Simpson Consulting Engineers

The first four employers have completed the first year of their three-year accreditation phase and are currently in the Self-Assessment Stage. All of these companies possess what would be considered good registration track records prior to becoming accredited; meaning their EITs were consistently registered on the first attempt. This indicates that the respective working environments provides them with adequate exposure to fulfill APEGBC's competency requirements. All companies also offer proper supervision with P.Eng. supervisors. In addition to that, each employer received provisional accreditation only after submitting documentation regarding their existing EIT training plans as well as having their staff undergo specific training sessions developed for each individual employer's EITs, supervisors/validators, and nominated assessors who serve as part of the MIT Review Panel. All of the MIT Review Panel members have been approved by the Registration Committee for appointment as APEGBC volunteers. At this time, GITs are not included in the pilot as a competency-based assessment system for geoscientists is still in the planning stage.

To date, a total of twelve EITs who are part of the program at various accredited employers have "graduated" and received the P.Eng. designation. All of them underwent a review scheme that involved their experience examples and validations on the Competency Experience Reporting System being assessed by two internal MIT Review Panel members from their own company, as well as a third panel member from another accredited employer. Also, in keeping with the program's quality control protocol, for each first applicant from an employer, an additional assessment was conducted by a competency assessor from our general pool, or by the Director, Registration or Associate Director, Engineering Admissions, if the candidate qualified as low-risk. All applicants received a decision to grant the P.Eng. license in less than 30 days from when their applications were ready to be reviewed.

Recommendation(s)

The initial pilot project plan outlined that upon completion of a full year, the pilot results would be reviewed from an organizational standpoint on whether its merits justify the resource costs of full implementation.

APEGBC's Employer Advisory Committee met on March 22, 2017, and staff presented the committee with a Cost-Benefits Report outlining the progress achieved by the pilot. The report can be found in Appendix-A. The Employer Advisory Committee received the report as developed by staff and acknowledged the promising results achieved to date with the expedited registration of qualified individuals from the accredited firms taking part in the pilot. Also acknowledged were the mutual benefits generated from a partnership between the association and employers that has led to a more direct and proactive approach to ensuring that young engineers are exposed to all the competencies required for professional registration.

When considering the option to endorse the program becoming permanent, the Committee discussed the current sample size of P.Eng registrants (eight registered in 2016/2017 at the time of its meeting) and whether that amount was adequate to move forward. It was felt that with the current employers accredited, an additional year in the pilot phase would yield more EIT to P.Eng. “graduates” to better highlight the effectiveness of the program. In addition to this, several new firms are currently in the accreditation process which will increase the pool of EITs that will be transitioning into the assessment phase in 2017/2018.

Appendix A – APEGBC Accredited Employer MIT Program Cost-Benefit Analysis Report

Date: March 29, 2017

Report to: **Council for Information**

From: Ann English, P.Eng.
CEO & Registrar

Subject: CEO and Registrar Report to Council

Linkage to Strategic Plan: Continue to implement best practices in governance.

This report summarizes activities of the Leadership Team related to policy work, implementation of the Strategic Plan and ongoing Regulatory duties of the association since the February 10, 2017 meeting of Council.

1. Regulatory Matters

1.1 Response from Members on the Restricted Time Reduced Member Fee

Several members have written to protest the limit of 2 consecutive years that a member can be on reduced fees. Many of these are not in financial straits but are retired and hoping to bridge to age 70 and Life Membership. A report will be brought to Council in June with proposed solutions and a system of membership that can work effectively for long time members who are retired and wish to maintain APEGBC non-practising membership.

1.2 Update on Pan-Canadian Competency Based Assessment Project

Engineers Canada has issued a letter to APEGBC confirming approval of the funding for provision of Registration and IT support to the national competency-based assessment pilot and project to adopt APEGBC's framework and online tool for other engineering regulators in Canada. APEGBC and Engineers Canada are now negotiating a contract setting out the terms for the funding. At the end of March, Engineers Canada submitted an updated proposal to Employment and Social Development Canada for co-funding of the overall project; however the funding commitment to APEGBC is in place regardless of whether ESDC provides funding to Engineers Canada. In May, CEOs of participating regulatory bodies plan to finalizing a business plan and agreement between APEGBC and each regulator for ongoing funding of the system through a per applicant fee. To date, four provincial regulatory bodies have twenty-one assessors and six pilot applicants participating in the initial pilot stage of the project.

1.3 Accreditation Update

At the February 10 CEAB meeting, Jim Nicell, Dean of Engineering at McGill University and member of the CEAB Deans Liaison Group, presented the National Council of Deans in Engineering and Applied Science's (NCDEAS') plan to conduct a national accreditation pilot during the coming year. To this end, a project manager will be engaged by the NCDEAS and the pilot concept will be presented at the Canadian Engineering Education Conference June. The pilot, overseen by an Advisory Group of stakeholders will incorporate promising practices of other accrediting bodies and will

examine alternate means of content assessment to the current Academic Unit methodology. It will also examine placing greater emphasis on learning outcomes and graduate attributes. The members of NCDEAS were unanimous in their support of the pilot and several universities have offered to participate. The pilot is expected to take one year and its learnings will be presented to the CEAB with recommendations for change to the current system as appropriate. CEAB has declined to participate in the pilot. It is currently actively reviewing its requirements and procedures for accreditation of Canadian engineering programs.

2. Internal Operations

2.1 Compliance Statement

APEGBC has met all of its legal obligations. There are no outstanding lawsuits or other liabilities that would materially modify our financial position.

2.2 Space Update

The renovation project is complete. Final inspection approval from the City of Burnaby was obtained in early February. All deficiencies have been addressed and the total project cost came in at approximately $1.35M which is below the Council approved budget of $1.5M.

2.3 Brand Implementation Update

Council's 2014-2017 Strategic Plan has a major focus to improve brand recognition for the association and the professions of engineering and geoscience. The plan set two objectives to "*Develop and implement an organizational brand strategy for APEGBC*" and "*Develop and implement a brand strategy for the BC engineering and geoscience professions.*"

To deliver on these objectives, APEGBC undertook a major initiative to renew the association's brand identity. This involved research and consultation with members and stakeholders to better understand and develop a brand that more accurately represents BC engineers and geoscientists, and the association's regulatory role, and which is supported by a strategic marketing and communications approach.

At its September 2016 meeting, Council approved the name "Engineers and Geoscientists British Columbia" and a logo concept for development and implementation. Staff are executing the roll-out plan with a launch date in mid-August. Council will preview the launch package prior to releasing it to members and the public. To support a strategic approach to the roll-out of the brand, members of Council are asked to keep any logo images confidential until the official launch.

3. Member and Public Affairs

3.1 Media Interactions

Since the last reporting period, APEGBC has had a higher than average number of media interactions. We received media requests for expert interviews related to snow accumulation on buildings (CKNW), and snow load management (Fairchild Radio), as well as use of prefabricated wood (Chamber of Commerce), the safety of underground substations (*Vancouver Sun*), and the impact of climate change on bridge design (CBC). Inquiries regarding the status of an investigation related to a contaminated soil storage facility at Shawnigan Lake were received from members, members of the public, and from media (*The Tyee*).

Media pick-up of APEGBC news and branch events was received during National Engineering and Geoscience Month, and included the *Kelowna Daily Courier*, 250 News, CKPG Prince George, Kamloopscity.com, the *Prince George Citizen*, the *Georgia Straight*, www.miss604.com and the Daily Hive.

3.2 Member Engagement Strategy Update

The association continues to reinforce our regulatory role in all aspects of our external communication with members, stakeholders and the public. We have taken advantage of the website optimization project to incorporate more visual cues of the association's regulatory role through changes to the website architecture, as well as increasing ease of access to information related to those regulatory functions, such as one-click access to disciplinary notices and information on the complaint process.

Engaging champions is a key component of moving the strategy forward. Staff have been briefed on key messages for communication with members and stakeholders, in alignment with the strategy.

Presentations on APEGBC's Regulatory Framework are being scheduled with the handful of remaining branch executives and are targeted to be complete by fiscal year end. At the Spring Branch meeting, branch and division representatives participated in structured discussion on the topic of member engagement on the association's regulatory role. A discussion paper will be forthcoming, and the second phase of the strategy is now being planned.

3.4 Spring Branch Representatives Meeting

See Branch Engagement Report (item 5.8.2).

Date: April 12, 2017

Report to: **Council for Information**

From: Deesh Olychick, Director, Member Services
Tim Verigin, Member Services Coordinator
Mara Buzgar, Member Services Coordinator

Subject: Branch Engagement Report

Linkage to Strategic Plan: Improve resources and education as well as awareness and access to resources that help members practice to high professional and ethical standards.

Purpose:	To update Council on current Branch Engagement.
Motion:	No motion required.

Update on Spring Meeting with Branch & Division Representatives

On Friday, April 7th, a full day meeting was held with branch and division representatives. This provided an opportunity for volunteers to hear about current APEGBC activities. Presentations included updates on Council activities, the 2017-2020 strategic plan, the 30 by 30 initiative, corporate practice, branding initiative, student program and the new volunteer guidelines.

After the updates, the division representatives met separately to discuss APEGBC's legislative framework, professional practice updates and changes to their terms of reference. The meeting also provided a good opportunity for division representatives to exchange information.

Branch representatives continued their meeting to discuss progress on their current branch goals, knowledge share and discuss new goals to align with the new strategic plan. There was a lot of great discussion and feedback from volunteers. Some issues that staff will be working on are: providing an email solution for volunteer members for outbound communication, a webinar tool that can be utilized at the branch/division level, more sustainable promotional items for career awareness giveaways, and clearer guidance on social media usage and general communication. Social media usage is a complex issue that will require careful consideration and staff is currently working on developing a new guideline for branch and division use.

In addition to the full-day meeting, a dinner was held on Thursday, April 6th and branch and division representatives were able to share their perspectives on APEGBC regulatory framework. When available, the notes from the Thursday discussion will be posted to the Council website.

Please see next page for branch engagement activities reported for November 9, 2016 to April 5, 2017.

Background

Council has identified branches as playing a fundamental role in increasing member engagement. Branches currently support and drive member engagement in several different ways. All branches were asked to provide information updates for this report to Council. Information presented here is based on those branches that provided reports.

Engagement Report for November 9, 2016 to April 5, 2017

We have identified three main areas in which branches support the association through member engagement: Outreach Initiatives, Association and Member Support, and Events and Activities. Branch activities in each of these areas are reported on for the period of time since the last branch engagement report.

Outreach Activities

Elementary and High School Students

During this reporting period APEGBC branches directly engaged 1,485 elementary and high school students at 26 outreach events. Outreach activities included the following:

- Northern Branch presented to a Girl Guide group of 25 about the engineering and geoscience professions, how they affect day to day life, and discussed the path to becoming an engineer and geoscientist. Their activity involved a hover drone constructed from every day materials to explain concepts of force and resistance.
- Vancouver Branch presented to a Girl Guide group of 21 girls and tested miniature water slides.
- Fraser Valley Branch participated in a STEM event with the Girl Guides from ages 5-8 and engaged with 100 girls getting them to try three different activities: jenga, lego, and catapult.
- Victoria Branch has engaged with a total of 475 students through 7 school visits during this reporting period.
- Tri-city branch visited 5 schools and engaged with a total of 140 students.

University Students

With respect to University Engagement, branches reached 120 post-secondary students. Outreach activities include:

- Burnaby/New West Branch attended the BCIT Spring Big Info Night and engaged with around 70 students. This branch annually participates at this staple BCIT event.
- East Kootenay Branch continued with their presentation series at the College of the Rockies engaging a total of 15 students from the APSC 122 class by bringing a variety of different speakers to their classroom.
- Vancouver Island Branch connected with 35 first year students from Vancouver Island University (VIU) and presented their school, personal and work experiences followed by a Q&A period.

Community Outreach

National Engineering and Geoscience Month saw a lot of activity for community outreach. Throughout the province, there have been 12 NEGM events hosted. Some of the highlights include:

- Vancouver Branch EG-Fest at the Vancouver Public Library with approximately 500 people engaged at the event.
- Sea-to-Sky had 49 participants at their successful Popsicle Stick Bridge competition at Capilano Mall.
- Central Interior hosted their Bridge Competition and Geo Rocks Event with 60 participants.
- Richmond/Delta Branch held a successful event at the Richmond Public Library with 50 contestants and many others engaged with the booths that were brought to the event.
- Peace River Branch hosted its NEGM event in Fort St. John with 169 bridges to be tested and a mining for chocolate chips activity alongside the bridge busting.

Association and Member Support

The branches continue to promote association programs and events as part of their announcements and a rotating slide presentation at their branch events. These programs include corporate practice consultations, the OQM program, volunteer opportunities, and attending student and industry nights at local universities.

Events and Activities

Branch hosted events are held in almost all branches, and include tours of local projects, and breakfast, lunch or dinner presentations that are eligible for professional development hours.

These events help to build a sense of community amongst members and are also open to members of the public interested in connecting with the professional engineering and geoscience community.

Collectively, within the reporting period, branches held 56 successful events which attracted a total of 1,693 attendees. Some of these events included:

- Okanagan Branch hosted six events in the month of March in celebration of NEGM: CF Minerals Tour, Okanagan Branch Museum, Banquet Dinner, and a night focused on Engineering Research from UBC Okanagan.
- Sea-to-Sky Branch hosted very successful dinner presentations on Run-of-River Hydropower, and another on the Canadian LNG Industry.
- Vancouver Branch and Sea-to-Sky Branch hosted their joint Networking Night in January and had 43 attendees.
- Tri-City Branch hosted tours of the Burrard Generation Station, and Mossom Creek Hatchery.
- South Central Branch hosted a social night in May for members and hosted a consultation meeting for Corporate Practice.

- Burnaby/New West provided two tours this term: Seymour Water Treatment Plant and BCIT Smart Grid.
- East Kootenay hosted a corporate practice consultation alongside a brewery facilities tour.

Branch Governance

In this reporting period there have been three changes to the Branches. The new chair of the Richmond/Delta Branch is Peter Bryce, P.Eng., the new chair of the Victoria Branch is Faisal Hamood, P.Eng., and the new chair of the Central Interior Branch is Mike Mason, EIT.

Upcoming Events

Below is a list of upcoming events, as there are still many events until the summer season. The branches encourage Council to attend these events where possible. For more Branch Events please visit the Branch Events Calendar.

Organizer	Date	Event Type	Description
Vancouver	Thursday, May 10, 2017	Breakfast Seminar	Low Level Road Project: A Case Study on Sustainable Infrastructure
Burnaby/New West	Friday, May 26, 2017	Breakfast Seminar	Distribution Automation of Power Systems
Vancouver Island	Thursday, May 18, 2017	Dinner	Campbell River Dinner: Moving, Lifting, Recycling and Selling Houses
Victoria	Tuesday, May 23, 2017	AGM and Panel	Panel Discussion: Attracting Women to Engineering
Vancouver Island	Friday, June 2, 2017	Golf Tournament	Annual Golf Tournament for KidSport

Date: April 13, 2017

Report to: **Council for Information**

From: Megan Archibald
Director of Communications & Stakeholder Engagement

Subject: Corporate Engagement Update

Linkage to Strategic Plan: Goal 2: Members Employers' and Client

Purpose:	To update Council on current corporate engagement initiatives.
Motion:	No motion required.

Background

The current Corporate Engagement Strategy focuses efforts on three key priorities. They are:

1. Involve employers in improving the effectiveness of and participation in APEGBC programs.
2. Demonstrate how APEGBC and its members provide technical, professional and ethical value to employers and clients.
3. Develop strategies for protection from non-compliant and unregistered practitioners.

Current Activities

Priority 1: Involve employers in improving the effectiveness of and participation in APEGBC programs.

Corporate Practice Initiative

The Advisory Task Force on Corporate Practice has completed its member and stakeholder consultation and has formulated its final recommendation to Council. This recommendation is being presented as a separate item at today's meeting.

Organizational Quality Management Program

The OQM Program has now reached a total of 463 organizations that have registered to become OQM certified and a total of 244 that have achieved certification. Since initiation in the fall of 2012, 248 paper audits have been carried out, 56 office audits have been completed and 43 OQM training sessions have been delivered.

The migration of OQM administration to the Membership Relationship Management (MRM) system for managing all information and data of participating firms is complete.

Phase 2 of the OQM national pilot program has been completed. Ten certifications have been issued to organizations in Alberta, Saskatchewan, Ontario, Nova Scotia, New Brunswick, and Newfoundland and Labrador. Members of Engineers Canada and APEGBC's OQM team will be meeting in May to map out the next phases of the OQM national pilot program.

An OQM contract auditor has been selected, and we are in the process of finalizing the Certified OQM Auditor training program that will be used to train and certify auditors for both BC and the national OQM program. The training and certification is projected to be completed by May 2017.

With increasing frequency, government bodies (municipal and provincial) have become more involved with OQM. These bodies either move towards OQM certification, like the City of Vancouver, and/or use OQM certification as qualification criteria for engineering or geoscience services they procure. In order to facilitate the training of municipal staff on the OQM Program, APEGBC will be hosting its first municipal government specific OQM Training Session in Kelowna on June 7, 2017.

Sponsorships

APEGBC engages with and influences the professional community and industry through sponsorships and event participation. Each opportunity is carefully evaluated for relevance to the association's strategic goals and programs, the value it provides, and its return on investment. The following sponsorships and event participation occurred this reporting period or are upcoming:

- February 15-16, 2017: BuildEx Vancouver
- March 25, 2017: IEEE AGM
- April 8, 2017: ACEC-BC Awards for Engineering Excellence
- May 5-6, 2017: SFU Creating Connections
- May 26, 2017: ASTTBC AGM
- May 31-June 3, 2017: CSCE Vancouver - Leadership in Sustainability

Sponsorship of APEGBC's Annual Conference is underway, with $38,000 in sponsorship opportunities sold to date. This year, exhibitor opportunities sold out in record time.

Accredited Employer Member-in-Training Program

The Accredited Employer Member-in-Training Program involves APEGBC's partnering with employers who foster environments where EITs can easily meet the competencies required for their P.Eng. licence. APEGBC staff provides detailed training on current registration requirements directly to the MITs, supervisors and those from within the firms that have been nominated as registration volunteers to serve on MIT Review Panels. It allows accredited employers to partner with APEGBC to ensure that their EITs have met the competencies for licensure and to recommend them to APEGBC, making them eligible for expedited assessment. To date, the program pilot has produced eight EIT 'graduates' that have been granted their P.Eng. licences. All five were reviewed and approved for registration in a turnaround time of 30 days or less.

Status of Priority 1: In progress.

Priority 2: Demonstrate how APEGBC and its members provide technical, professional and ethical value to employers and clients.

Professional Practice Guidelines

APEGBC professional practice guidelines create a shared level of expectation among stakeholders regarding the carrying out of particular professional activities within the practice of

professional engineering and/or geoscience. Guidelines are developed on an ongoing basis as the need for practice guidance is identified. There are no substantive updates at this time.

Status of Priority 2: In progress.

Priority 3: Develop strategies for protection from non-compliant and unregistered practitioners.

An enforcement outreach report has been tabled as a separate item at this meeting.

Status of Priority 3: In progress.

Questions regarding specific activities documented in this report can be addressed to the staff member involved in the activity. Questions of a general nature can be addressed to Megan Archibald, Director of Communications and Stakeholder Engagement.

Date: April 13, 2017

Report to: **Council for Information**

From: Cassandra Hall, P.Geo./P.Eng.
Chair of the Registration Committee

Subject: Piloting of Engineering Competencies for Limited Licence (Eng.L.)

Linkage to Strategic Plan: Support potential members in acquiring the competencies required for professional registration.

Purpose:	To keep Council apprised of proposed changes in evaluation methods.
Motion:	No motion.

Background

A limited licence is granted to an applicant who is ready to take professional responsibility for engineering or geoscience work in a limited scope of practice, and can demonstrate that readiness through their academic training and experience. Typically, this applicant has academic qualifications other than a university engineering or geoscience degree and has gained several years of experience in the defined scope of engineering or geoscience work. Most limited licence holders and applicants are in engineering, with a very few in geoscience.

After several years of consultation with members, employers and other engineering regulators, APEGBC's Competency-Based Experience Reporting System was implemented online in 2012 for applicants for the professional engineer designation. It created requirements that were transparent and easily understood by candidates, employers and APEGBC reviewers and allowed greater consistency of evaluation of competencies and experience for entry into the engineering profession.

Extending the use of the system to evaluate Engineering Licensee applicants would go far towards ensuring that all engineering applicants who are taking professional responsibility for their work meet the same standards of competency whether within a limited scope of practice or as a professional engineer. It would also: allow the submission of consistent documentation by applicants, focus the experience reporting on the applicant's achievements and competencies and reduce the number of documents submitted by the applicant while ensuring that more complete information is provided to allow assessment of the applicant's competencies in his or her intended scope of practice.

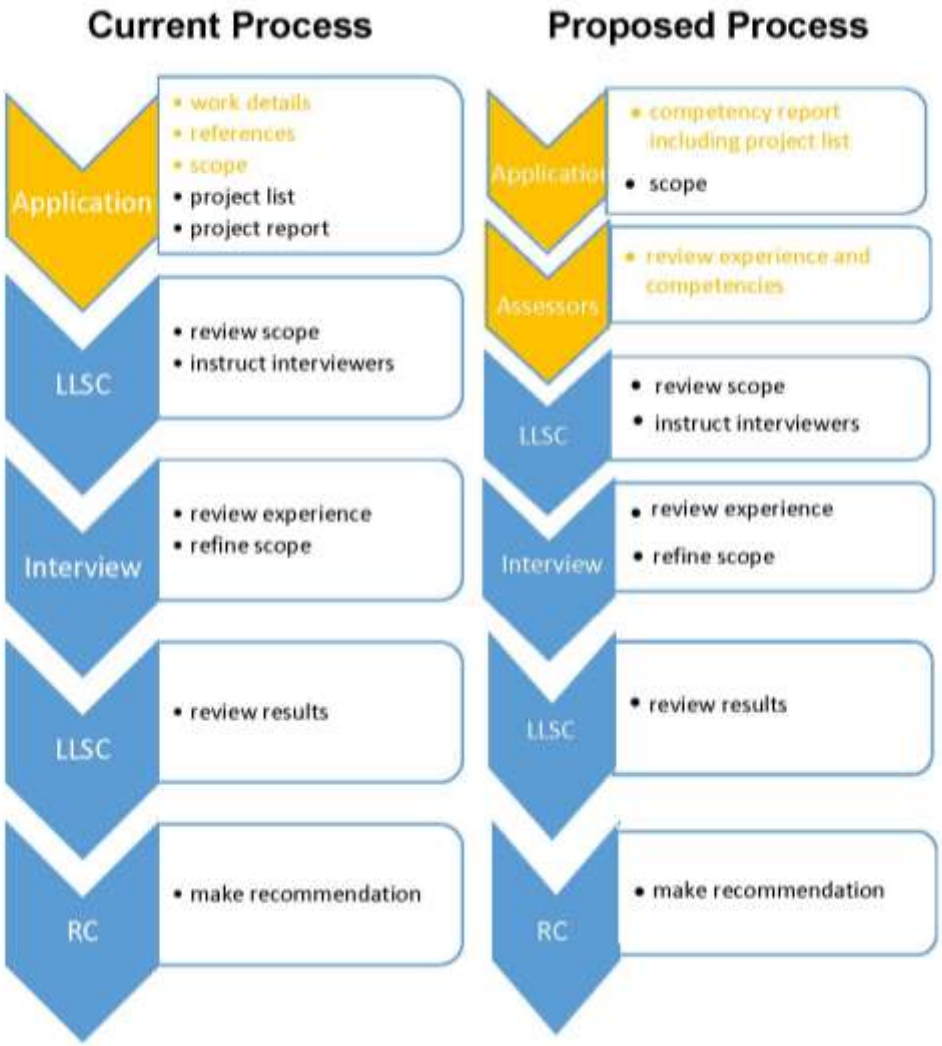
Discussion

The Limited Licence Subcommittee has recommended to the Registration Committee on its April 19, 2017 agenda that a pilot be conducted using the Competency-based assessment system for Engineering Licensee (Limited Licence) applicants. The flowchart on the next page compares the current process with the proposed process. The pilot would run from May 2017 through August 2018 and, if successful, a recommendation would be brought to the September 2018 Council meeting to approve implementation of competency assessment for

all new applicants for Engineering Licensee Limited Licence. The proposed timetable is on page 3.

The pilot would also enable implementation of the proposed ASTTBC P.Tech. to Eng.L. bridging strategy (Item 5.4 in this agenda) which proposes using APEGBC engineering competencies to evaluate bridging candidates.

Eng L. Evaluation Process - Traditional vs. Proposed Competency-Basedt



Proposed Pilot Timeline

Action	Detail	Date(s)
Review and recommend pilot proposal	• Limited Licence Subcommittee	March 29, 2017
Review and approve pilot	• Registration Committee	April 19, 2017
Advise Council of pilot	• Registration Committee	April 28, 2017
Selection of pilot candidates	• Advertise options on website • Approach applicants directly regarding participating in new system • Provide applicants with training module	April 2017 – August 2017
Assess Candidates		August 2017 – April 2018
Report on effectiveness	• Feedback from applicants • Feedback from assessors • Comments from subcommittee • Determine whether pilot should continue	April 2018
Implement feedback	• Update instructions to applicants and assessors • Update guidelines • Monitor application process • Plan changes to Competency System for full scale implementation	May 2018 – June 2018
Report on pilot	• Limited Licence Subcommittee • Registration Committee • Go/No Go decision – if "Go", bring report to Council	August 2018
If "Go" implement use of Competency System for all Engineering Licensee applicants	• Advertise process change and grandfathering timeline • Implement IT changes to existing system • Update guidelines and training modules	September 2018

Date: March 14, 2017

Report to: **Council for Information**

From: Garth Kirkham, P.Geo., FGC
Phil Sunderland, P.Eng., FEC, FGC (Hon.)
John Watson, P.Eng., FEC, FGC (Hon.), Chair of the Fairness Panel

Subject: Registration Fairness Panel Annual Report to Council
March 2016 – February 2017

Linkage to the Strategic Plan: Continue to implement best practices in governance.

Purpose:	To summarize the operation and findings of the Fairness Panel over the past year.
Motion:	No motion.

Background

The Registration Fairness Panel (the 'Panel') is an independent, non-statutory body that examines the fairness of the process of an application when an appeal of a registration decision made by an applicant is rejected by the Registration Committee (the 'Committee'). The Panel is advisory to the Committee and reports to Council. It makes recommendations to the Committee and Registration Task Force on process, policies and procedures as warranted, and provides an annual report of its activities to Council. Its last annual report covered the period March 2015 to February 2016.

The Panel is composed of three past members of council or other senior members who have served on the Registration Committee. The current Fairness Panel members are: John Watson, P.Eng., FEC, FGC (Hon.) (Chair), Garth Kirkham P.Geo., FGC and Phil Sunderland, P.Eng., FEC, FGC (Hon.). A pool of Expert Reviewers in engineering and geoscience supports the work of the Panel. The Panel consults with the Expert Reviewers at its discretion, normally when it determines that the technical competence of the applicant is at issue, rather than the process followed or adherence to policy.

Discussion

Panel Activities March 2016 through February 2017

During the reporting period, the Panel held eight meetings. This report by the Panel on activities for the period March 2016 through February 2017 was presented at the Registration Committee meeting on April 19, 2017.

<u>Appeals and Referrals to the Panel</u>

Table 1 sets out the history of appeals of registration decisions over the past eight years.

The Registration Committee reviewed 20 appeals from March 2016 to February 2017. The Geoscience Committee reviewed two appeals from March 2016 to February 2017. Of these cases, 16 were appeals referred to the Panel by the Registration Committee and two case were

referred to the Panel from the Geoscience Committee. There were no special referrals in this period.

The Panel agreed with the Registration Committee's original decision in 12 of the 16 appeals (75%) and agreed with the Geoscience Committee's original decision in all of the referrals. The Fairness Panel made recommendations for registration in three of the appeals and further action in one of the appeals.

Table 2 shows the distribution by applicant type, origin and Panel recommendation for the appeals referred to the Panel.

The policy on appeals calls for the Committee to refer any instances to Council where it does not follow the Panel recommendation. There was one referral of this nature during the reporting period.

Table 1 : Appeals/Referrals Reviewed by Registration Committee

Year	Total	Referred to Fairness Panel	
		Appeals	Special Referrals
2016 - 2017	**22***	**18****	**0**
2015 - 2016	23*	16**	0
2014 - 2015	36	20	0
2012 - 2013	36	20	0
2011 - 2012	36	16	2
2010 - 2011	57	26	1
2009 - 2010	48	20	2
2008 - 2009	44	21	0

** This number includes the two appeals received for review by the Geoscience Committee.*
***This number includes the two appeals referred to the Fairness Panel from the Geoscience Committee*

Table 2: Appeals/Referrals Reviewed by the Fairness Panel

Outcome	Applicant for Professional Engineer		Applicant for Professional Geoscientist	
	Canadian	International	Canadian	International
FP agrees with original RC Decision	4	8		
FP agrees with original GC Decision				2
FP recommends further action	1			

FP recommends registration	3			
TOTAL	**8**	**8**		**2**

Note: FP = Fairness Panel, RC = Registration Committee and GC = Geoscience Committee

Expert Reviewers

The Panel did not call on the services of the Expert Reviewer panel during the reporting period.

Report Prepared by: Mark Rigolo, P.Eng.
Associate Director, Engineering Admissions

Attachment A – Fairness Panel Expert Reviewers

Fairness Panel Expert Reviewers		
Engineering		
Name	**Discipline**	**Area of Expertise**
John R. Morgan, P.Eng.	Agricultural	Agricultural Construction, Hydraulics, Machinery
Lynton S. Gormely, P.Eng.	Chemical	Chemical, Process Engineering (Metallurgical), Extraction Processing (Mining)
Mahmoud Mahmoud, P.Eng.	Civil	Geotechnical
Doug S. Sinclair, P.Eng.	Civil	Municipal, Construction
Marcel L. Bernier, P.Eng.	Civil	Water, Municipal, Transportation
R. Allan Dakin, P.Eng.	Civil	Hydrogeology
Rick Heuft, P.Eng.	Computer & Software	Product Development, Software
Met A. Ulker, P.Eng.	Electrical	Power, Building Systems
Tom G.H. Lam, P.Eng.	Electrical	Telecommunications
Shail Mahanti, P.Eng.	Electrical	Building Services
Vern Buchholz, P.Eng.	Electrical	Equipment, Electronics
John Holland, P.Eng.	Environmental	Air Assessment, Monitoring, Site Remediation
Mark A.M. Grindlay, P.Eng.	Industrial	Pulp & Paper Plant Operations
George E. Plant, P.Eng.	Mechanical	Machine Design
J. Paul Anderson, P.Eng.	Mechanical	HVAC
Gordon D. Apperley,	Mechanical	Plant/Maintenance
Bob S. Charlton, P.Eng.	Metallurgical	
Hans F. Muhlert, P.Eng.	Naval Arch. & Marine	
Surrendar P. Menrai,	Structural	
Richard A. Mossakowski,	Structural	
Geoscience		
George R. Cavey, P.Geo.	Geoscience	Geology, Exploration Geology
Robert F. Gerath, P.Geo.	Geoscience	Surface Geology, Engineering Geology, Environmental
Douglas F. VanDine,	Geoscience	Soil & Rock Mechanics, Forest Practices Geology, Geotechnical Engineering

Date: April 10, 2017

Report to: **Council for Decision**

From: Deesh Olychick
Director, Member Services

Subject: Branch Terms of Reference

Linkage to Strategic Plan: Effective governance and resources that enable and guide APEGBC's operations

Purpose:	To consider approving the revised terms of reference for branches
Motion:	That Council approve the revised terms of reference for branches

Background

In 2015, APEGBC initiated a governance review with the objective to advance best practices with respect to the functionality and governance of the organization. This review was undertaken by an external governance consultant and included several recommendations for Council consideration.

In review of the structure of branches, there was a recommendation to better clarify the reporting relationship of branches to APEGBC. One option presented was for the branches to report to staff who then report to Council. The second option was for branches to continue to report to Council but to establish a formal "branch committee" comprised of the chairs of branches with the Branch Representatives Chair reporting to Council on behalf of the branches.

The Governance Committee previously discussed both options and considered the second option to be the best approach going forward as it closely mirrors the way branches currently operate. The Governance Committee asked staff to update the terms of reference (TOR) for branches to reflect this new reporting structure and gather feedback from the branches.

As the branch TOR has not been updated for some time, the TOR was also updated to reflect current practices and the new template for TOR's. The revised terms of reference with track changes is attached as Appendix A. A clean copy is attached as Appendix B

Discussion

An overview of the changes to the terms of reference was provided to branches at their September 2016 teleconference and at the October 2016 in-person meeting. Branches were provided with an opportunity to review the proposed changes and provide feedback. Nine of the fifteen branches provided feedback and all nine indicated support for the proposed changes.

Below is an overview of the changes:

1) **Revise the reporting structure of branches to match current process**

   The TOR has been updated to more accurately reflect the reporting relationship of branches to APEGBC by formalizing the "Branch Representatives Committee" and clearly outlining the reporting relationship to Council. The branches meet regularly (2 in-person meetings and regular teleconferences) and have an elected chair. Issues that warrant Council consideration are discussed during these meetings and when appropriate, motions are brought forward to Council by the Branch Representatives Chair. This change requires documenting the process currently followed.

2) **Reflect current branch operations, e.g. finances**

   The branch TOR was last approved in 2011 and since then, there have been some changes to branch operations; mainly how finances are handled. Branches are still held accountable for branch expenses and are responsible for keeping expenses within budget, but the accounts are administered by the APEGBC office and branch expenses are submitted to APEGBC for payment. The proposed TOR has been updated to reflect current practices.

3) **Conform to the new template for terms of reference**

   In 2014, Council approved a new template for TOR's to ensure that there was alignment and consistency across all volunteer groups. This included adding provisions for holding meetings by electronic means and allowing for consent resolutions by email. The branch TOR has been updated to incorporate these provisions and comply with the new format.

Recommendation

The terms of reference has been revised to reflect the recommendation of the Governance Committee and branches are in support of the revisions. At its February 2017 meeting, the Governance Committee recommended that Council approve the revised terms of reference for branches.

At the March 2017 meeting of the Executive Committee, the Executive Committee supported adding a clause to the terms of reference making it clear that branch executive members serve at the pleasure of Council and may be removed from the their position by Council. This clause has now been added.

MOTION: That Council approve the revised terms of reference for branches.

Appendix A – Revised Branch Terms of Reference – with Track Changes

Appendix B – Revised Branch Terms of Reference – Track Changes Accepted

Date: April 12, 2017

Report to: **Council for Information**

From: Russ Kinghorn, P. Eng. FEC
Jeff Holm P. Eng. FEC
APEGBC Directors to the Board of Engineers Canada

Subject: Engineers Canada Update

Accreditation Update

Accreditation workshop was held on February 27, 2017

- Dean Jim Nicell (Dean at McGill) enunciated the deans' issue of uncertainty in how inputs will be measured, particularly with innovative teaching methods. Although he feels that measurement Accreditation Units (AUs – a measure of contact hours with students) do not predictably measuring innovative teaching methods that are common today, he did say that he has no problem with the AUs measuring scheduled contact hours with students in traditional lecture-based courses even though the students may not attend classes. He said that AUs still measure how much teaching is being done in a lecture-based engineering education program
- The Accreditation Board is forming a task group to devise new ways to measure AUs that will take innovative teaching methods into account in an objective and certain way. The task group will include a member of the Accreditation Board who has industry experience and Dean Tiedje from UVic. It was suggested that Regulator admissions officials intimately involved in developing solutions as the work of accreditation is to assist them in registering new members for the practice of engineering.
- Julius Pataky will be put forward to the EC Board as the CEAB Rep for BC & YT.

The Deans are still working on a pilot to develop and test a new accreditation system. APEGBC is intimately involved so first-hand reporting on this is left to Ann English.

Governance at Engineers Canada

The Governance Committee will be taking a close look at the governance model such that the Directors and the Regulators are much more involved in decision-making. Some of the considerations are:

- Develop a focussed strategic plan with the Regulators that is front and centre for all work at Engineers Canada to ensure that the work of Engineers Canada is in service to the Regulators/Owners.
- Reduce the Board size from its current 22-24 Directors plus 5 Advisors

- Review the Board policies to be more specific about what is expected from the Board and staff (specifically the CEO).

In keeping with development of more focus for the Strategic Plan which is to be approved at the May Board meeting, Regulators and Board members are being surveyed on their priorities for six broad areas and 14 sub-areas. **It would be very helpful if some representatives of APEGBC Council would jointly fill out the survey. We will be happy to facilitate. The survey takes maybe 20 minutes. Thank you!!!**

Staff Changes

On January 30, Kim Allen stepped down as CEO.

The staff structure has since been changed to add the position of Chief Operating Officer to which all vice presidents and the Director of Human Resources report. The position has been given to Stephanie Price, a long term employee of Engineers Canada. In addition, Stephanie has been appointed as the Interim CEO while a search for a permanent CEO takes place. We would like to congratulate Stephanie on her appointments.

The CEO Search Committee has been formed and includes Ann English as the representative of the CEO Group. Its first meeting was held April 13.

Respectfully submitted by Jeff Holm P.Eng. FEC and Russ Kinghorn P. Eng., FEC

Date: April 13, 2017

Report to: **Council for Information**

From: Garth Kirkham, P.Geo., FGC
Director, Geoscientists Canada

Subject: Geoscientists Canada Report to Council

Background

On April 6th, 2017, Geoscientists Canada held the 48th director's meeting via conference call.

Discussion

The meeting addressed the regular business of Geoscientists Canada including approval of the annual audit and financial statements along with committee reports. The next meeting which the AGM is set for June 2-3, 2017 in Yellowknife, NWT.

Other items discussed were the Demand-side Round-up and some of the CS's responses, the RFG 2018 Conference which GC submitted a session on Professionalism and the Geosciences, a report by Garth Kirkham on a recent trip to Brussels on behalf of GC which focused on Reporting Standards for Resources. In addition, the GIT Booklet was approved and there was a discussion related to the creation of a Practice Advisory Committee.

The goal for getting feedback from the CA's on the Demand-side Round-up is *to map out use of P.Geo in "demand side" regulations and codes in all provinces and territories by practice activity (groundwater, geohazards, site assessments, etc, in addition to mining and energy)*

It was requested that we seek, through our CA, info on demand-side legislation for the P.Geo designation in your jurisdiction. What is meant by here is all instances in our province or territory where laws or regulations. or local code require work to be done by, supervised by, signed off by, reported on, etc. by a P.Geo's. Sometimes it may say by a either a P.Eng or a P.Geo, sometimes is just states member/professional member of our CA, etc.

This will serve as a baseline for a simply table that shows all the existing P.Geo "where and when" for the country. This will help for discussion and tactics going forward with the plan being "*Advocate the "Professional Reliance Model" be used in all major geoscience activity in Canada"*

As an examples, for demand-side references in BC.

Water Sustainability Act – Part 3, Division 3, 48, 49, 50, 51, 52, 53, 106, 114

http://www.bclaws.ca/civix/document/id/complete/statreg/14015#section44

Occupational Health and Safety Regulations – Definitions, Part 20.81, 22.6

https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation

Mineral Tenure Act – Section 16 (2)

http://www.bclaws.ca/civix/document/id/complete/statreg/529_2004

ESDC were in contact to advise that AST PII proposal is in process and has the support of its staff, but unapproved as yet; they are working to the July 1 start date that we had proposed.

CGSC (CGSB) met on 30th where the primary discussion was around 2 GKE points raised by PEGNL (Biochemistry and pass marks). A working group was struck to canvass all other CAs for key input on the GKE, with a view to getting the GKE review exercise underway later this year.

The Annual mobility survey circulated.

Interesting article on "Social Geology has been circulated regarding the integration of sustainability concepts into Earth Science" focusing on the unique skills and perspectives that only geoscientists can bring to this public issue and how sustainability should be a part of earth science training and CPD. (see attached).

Herewith information, attachments and links from EFG on the public release of the three themed reports as part of the INTRAW project (see attached). These are the reports on:

- Research and Innovation
- Industry and Trade
- Education and Outreach

Geoscientists Canada has been providing assistance to EFG for this project and these reports, as concerns Canadian input as one of the comparative countries. The CA's are encouraged to raise CA awareness on this among the P.Geo member communities as meets CA local interests, needs and objectives.

Respectfully submitted,

Garth Kirkham, P.Geo., FGC

Director, Geoscientists Canada

Appendix A – Social Geology – Integrating Sustainability Concepts into Earth Sciences

Appendix B – INTRAW Operational Reports

Appendix C – INTRAW Media Kit, April 2017

Date: April 10, 2017

Report to: **Council for Information**

From: Paul Adams, P. Eng., FEC, Chair of the Discipline Committee
Neil Nyberg, P. Eng., FEC, Chair of the Investigation Committee

Subject: Investigation & Discipline Status Report

Linkage to Strategic Plan: Develop strategies for protection from non-compliant members and unregistered practitioners.

Purpose:	Investigation & Discipline status report for the period from January 1, 2017 to March 31, 2017
Motion:	None

DISCIPLINE FILES FOR THE PERIOD JANUARY 1, 2017 TO MARCH 31, 2017.

Re: 2015-2016 Files

Daniel Wu, P. Eng: A Notice of Inquiry was issued to Mr. Wu regarding his mechanical engineering services. In lieu of proceeding to a disciplinary inquiry, Mr. Wu agreed to a Consent Order dated February 17, 2017. By way of the Consent Order, Mr. Wu admitted that he demonstrated unprofessional conduct by providing a written assurance through a sealed Schedule B to the City of Surrey that a fire suppression system complied with the requirements of the British Columbia Building Code when Mr. Wu lacked reasonable and factual basis to provide the assurance. Further, Mr. Wu admitted that he affixed his APEGBC seal and signature to design drawings that he had not prepared or were not prepared under his direct supervision.

As part of the Consent Order, Mr. Wu agreed to the following:

A. Mr. Wu's membership in APEGBC will be suspended for two months;

B. Mr. Wu will complete the APEGBC Professional Engineering and Geoscience Practice in BC Online Seminar by May 15, 2017;

C. Mr. Wu will complete the APEGBC Working in Canada Seminar by May 15, 2017; and

D. if Mr. Wu does not complete the requirements set out at items B and C above, Mr. Wu's membership in APEGBC will be automatically suspended.

Neil Nyberg, P.Eng.
Chair, Investigation Committee

Paul Adams, P.Eng.
Chair, Discipline Committee

Investigation and Discipline File Summary January 1, 2017 to March 31, 2017.

1. Statistics

Re: 2016-2017 Files: So far for the fiscal year between July 1, 2016 to March 31, 2017, APEGBC opened 52 investigation files and 1 file where we were investigating on behalf of the Registration Committee.

For this reporting period between January 1, 2017 and March 31, 2017, APEGBC opened 23 investigation files.

Investigation Files :	
Total open investigation files carried forward as of December 31, 2016 :	98
New investigation files opened between January 1 to March 31, 2017:	23
Files closed between January 1 to March 31, 2017:	18
Investigation files sent to discipline between January 1 to March 31, 2017:	5
Total investigation files open at December 31, 2016:	100
Discipline Files:	
Open discipline files carried forward as of December 31, 2016:	6
Files received from Investigation Committee (see above)	5

Discipline files closed between January 1 and March 31, 2017:	1
Total discipline files open at end of March 31, 2017:	10

New Files: The following is a breakdown of the categories of the 23 new complaints. The categories are approximate only and are not necessarily reflective as to the issues that the Investigation Committee may isolate on its review of the complaints:

Conduct (not professional competence) – 12
Transportation – 5
Geotechnical – 3
Structural – 1
Fire Suppression – 1
Building Envelope – 1

2. Outcomes between January 1 and March 31, 2017:

Staff	Files closed by Registrar	4
	Files referred to Practice Review Committee by Registrar	0
	Files closed by Designated Reviewer	9
	Assistance to Registration Committee completed	0
Total closed during Intake Phase		13
Investigation Committee	Files closed by Investigation Committee	5
	Files referred to Practice Review Committee by Investigation Committee	0
Total investigation files closed		5

Discipline Committee	Notice of Inquiry proven at Inquiry	0
	Notice of Inquiry not proven at Inquiry	0
	Consent Order accepted by member	1
	Other (Consent Dismissal Order)	0
Total discipline files closed		1

Date: April 13, 2017

Report to: **Council for Information**

From: Efrem Swartz
Director, Legislation, Ethics & Compliance

Subject: Enforcement Report, January 1, 2017 to March 31, 2017

Linkage to Strategic Plan: Develop strategies for protection from noncompliant members and unregistered practitioners

Purpose:	This report is for updating Council on enforcement activities undertaken by the Legislation, Ethics & Compliance Department ("LEC") from January 1, 2017 to March 31, 2017 (the "Reporting Period").
Motion:	No motion required.

Statistics

A summary of the file openings and closures during the Reporting Period is as follows:

Files Carried Forward from prior to the Reporting Period	37
Files Opened during the Reporting Period	21
Files Closed during the Reporting Period	30
Files Remaining Open at the end of Reporting Period	28

Summary of Activities

The following are examples of notable enforcement actions taken by LEC during the Reporting Period:

(a) Mr. Nathawad was an APEGBC member until 2000, when he agreed to the cancellation of his membership following convictions under the *Income Tax Act* and the *Excise Tax Act*. In 2015, APEGBC received information suggesting that Mr. Nathawad had been representing himself as a geotechnical engineer and implying that he was a member of APEGBC. Mr. Nathawad signed a Letter of Undertaking in March 2015, by which he agreed to refrain from further unauthorized practice and from representing himself as an engineer. In 2016, APEGBC received evidence suggesting that Mr. Nathawad, despite his cancellation and the 2015 Letter of Undertaking, had been continuing his unauthorized practice of geotechnical engineering. In response, APEGBC initiated a lawsuit against Mr. Nathawad, alleging unauthorized practice. Mr. Nathawad, represented by legal counsel, agreed to a Consent Order in March 2017, according to which he agreed to an interim injunction

prohibiting unauthorized practice. LEC is currently waiting for the Consent Order to be "entered" (approved) by the Court, at which point the Consent Order will be published on the APEGBC website.

(b) Engaged a major hotel regarding their use of job titles and job descriptions that used the term "engineer" to refer to maintenance worker positions. The hotel had also entered a collective agreement with a worker's union which included the impugned job titles and description. After discussions with APEGBC staff, both the hotel and union agreed to change the wording of their job titles and descriptions to avoid referring to non-profession engineering positions as "engineers" (switching instead to the term "technician").

Enforcement

LEC's "enforcement" activities mainly refer to steps undertaken (pursuant to sections 22, 23, and 27 of the Act) to stop unauthorized practices of professional engineering or geoscience by individuals, corporations or other legal entities. An enforcement file is opened when LEC receives a complaint about a case of unauthorized practice, or if APEGBC staff suspect a case of unauthorized practice that requires further investigation.

Historically, only a small portion of enforcement files have ultimately required Court action for resolution, because the vast majority of enforcement targets agree to bring themselves into compliance following the communication of demands from LEC. Compliance is typically achieved either by the target ceasing to engage in prohibited practices, or by the target taking steps to obtain licensure from APEGBC.

LEC follows up on each enforcement file until the resolution of the case. However, the length of time that each file may remain open will vary, depending on the following factors:

- The responsiveness and cooperation of the enforcement target.
- The complexity of the case and length of time required for LEC's investigation.
- The length of monitoring required after the enforcement target agrees to come into compliance with the Act.

Date: April 11, 2017

Report to: **Council for Information**

From: Ann English, P.Eng.
Chief Executive Office & Registrar

Subject: Council Road Map (as at April 28, 2017)

Linkage to Strategic Plan: Effective governance and resources that enable and guide APEGBC's operations

Purpose:	To provide Council with the current status of the actionable items listed on the Council Road Map for 2016/2017
Motion:	No motion.

Background

The appended document summarizes expected agenda items that are planned to be brought forward to Council during the 2016/2017 Council year. The items are aligned with the Strategic Plan and will help Council see the progress on elements of the Plan. This road map is not exclusive and additional items may be added as required throughout the year but will serve as a focus for this year's meetings.

Kindly note the following items on the Work Plan that have been postponed until future Council meetings:

The 'Visiting Dean (SFU)' item has been shifted from the April meeting to the September meeting as Dr. Eugene Fiume's schedule did not allow him the time to attend this meeting. He will be presenting at the September 8, 2017 meeting.

The 'Report on Eng.L. Title Research' item in the 'Improving Member Support & Brand' column has been shifted from the April meeting to the September meeting as this work has been temporarily reprioritized.

Kindly note the following item on the Work Plan that has been removed:

The 'Approval of Registration Hearings Committee Bylaw' has been removed as the Bylaw does not need to be changed.

Attachment A – Council Road Map (as at April 28, 2017)

Attachment A

APEGBC Council Road Map for 2016-2017

	HIGHLIGHTS	November 25 (Council Mtg)	February 9 (Planning Session)	February 10 (Council Mtg)	April 28 (Council Mtg)	June 16 (Council Mtg)	September 8 (Council Mtg)	October 19-21 (Annual Conf & AGM)
Members & Future Members	BRANCHES, DIVISIONS & SOCIETIES REPORTS	Report of the October 2016 Branch Rep Meeting Branch Engagement Rpt			Branch Engagement Rpt		APEG Foundation AGM and Benevolent Fund AGM Branch Engagement Rpt	
	IMPROVING MEMBER SUPPORT & BRAND		Member Engagement Rpt	Brand Development Update	Report on Eng.L. Title Research		Public Opinion Survey Member Engagement Strategy Update	
	ENHANCING REGISTRATION PROCESSES	Report on APEGBC's Role in Geoscience Competency Assessment			Report/Proposal Bridge P.Tech. to Eng.L. Enhanced MIT Program Policy Fairness Panel Annual Rpt	Canadian Environment Experience Alternatives Report, Working in Canada Seminar - Policy and Implementation Approval	Annual Update on Eng.L. to P.Eng. Bridging	
Members, Employers, etc.	EMPLOYER ENGAGEMENT			Corporate Engagement Rpt Update on OQM Program	Update on OQM Program Extend Accredited Employer Training Program from Pilot to Permanent			
Government, Public & Other Stakeholders	INCREASING PUBLIC CONFIDENCE			Coporate Practice Task Force Rpt Update from CPD Committee		Approval of Award Nominations	Year End Rpts on (1) Investigation and Discipline and (2) Enforcement	
	ACADEMIC OUTREACH				Visiting Dean (SFU)		Visiting Dean (UBC)	
	ENGINEERS CANADA AND GEOSCIENTISTS CANADA	Directors Rpt Update & Prospectus for approval re: National Competency-Based Assessment		Directors Rpt	Directors Rpt	Directors Rpt		
Enabling Goal	STRATEGIC PLAN CYCLE AND MONITORING ACTIVITIES		Prioritization of Strategic Plan Initiatives KPI Progress Update for 2016/2017		Approval of Strategic Plan Initiatives		AGM Rules Strategic Plan and KPI Update	
	LEGISLATION CHANGES AND BYLAW CYCLE				~~Approval of Registration Hearings Committee Bylaw~~ *Gov Comm Rpt on possible Revisions to Bylaws and Procedures re Delegation to Comms (tentative)*	*Draft Bylaw changes w/ Consultation Plan (tentative)*		
	IMPROVING DIVERSITY			Update on Diversity Initiatives			Update on Volunteer Management Activities	
	EFFECTIVE GOVERNANCE	Council Governance Training; Approval of Nominating Committee Appointees; AGM Motion Referral		Calendar 2016 Registration Admissions Report	Election Policy Approval		Council Evaluation Fiscal 2017 Registration Admissions Report	Appointment of Councillors to Committees
	FINANCIAL OVERSIGHT	Quarterly Financial Report / Budget Guideline Approval		Quarterly Financial Report	Quarterly Financial Report/ Budget approval		Audited Financial Statements / Year End Review	Approval of Auditors

Activities Completed	
Activities Behind Schedule (by end of September)	
New Item	Items Advanced

Printed: 4/13/2017

Date: April 11, 2017

Report to: **Council for Information**

From: Ann English, P.Eng.
Chief Executive Officer & Registrar

Subject: Council Attendance Summary (as at April 13, 2017)

Linkage to Strategic Plan: Effective governance and resources that enable and guide APEGBC's operations

Purpose:	To provide updates on the Council Attendance Summary.
Motion:	No motion.

Background

The Council Attendance Summary is used to track individual Councillor attendance at the Council meetings and other related events and Committee meetings that Councillors are a part of (e.g. the Executive Committee, the Governance Committee, the Registration Committee, etc.). Each Councillor is assigned a column which is regularly updated. Presently the table only shows the Council meetings, Executive Committee meetings, and a few other events; the table will be updated as the dates of the other Committees are determined.

At the end of the Council year, each Councillor's column will be tallied and a percentage applied. The intent in curating this summary is to provide information that will assist with future correspondence relating to things such as the election; this will enable staff to display the high level of dedication that is required of candidates. The Council Attendance Summary will also provide a clear visual of the amount of meetings that the average Councillor is required to attend and how many meetings each Committee holds.

Attachment A – Council Attendance Summary (as at April 13, 2017)

	Bob Stewart, P.Eng.	Dr. Ed Casas, P.Eng.	Dr. Mike Wrinch, P.Eng., FEC, FGC (Hon.)	Suky Cheema, CA, CPA	David Wells, JD	Ken Laloge, CPA, CA, TEP	Kathy Tamai-Lokhorst, P.Eng., FEC	Brock Nanson, P.Eng.	Caroline Andrewes, P.Eng.	Larry Spence, P.Eng.	Susan Hayes, P.Eng.	Ross Rettie, P.Eng., FEC	Cassandra Hall, P.Geo., P.Eng.	Richard Farbridge, P.Eng.	Scott Martin, P.Eng.	Chris Moser, P.Eng.	John Turner, P.Ag. (ret)	
Oct 22, 2016 (Inaugural Council)	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Nov 7, 2016 (ATFCP)															✓		✓	
Nov 9, 2016 (Orientation)	✓	✓	✓					✓		✓	✓	✓						
Nov 9, 2016 (Reg Comm)								✓		✓		✓	×					
Nov 10, 2016 (Prof Prac Comm)										✓	✓	✓						
Nov 16, 2016 (Exec Comm)	✓	✓	✓			✓	✓											
Nov 16, 2016 (Gov Comm)			✓						✓					✓		✓	✓	
Nov 22, 2016 (Orientation for New GA's)				✓	✓													
Nov 23, 2016 (Geo Comm)													✓		×			
Nov 24, 2016 (New Council AG Walk-Thru)	✓	✓		✓	✓			✓		✓	✓	✓						
Nov 25, 2016 (Council)	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Dec 6, 2016 (ATFCP)															✓		✓	
Dec 7, 2016 (Exec Comm)	✓	✓	✓			✓	✓											
Jan 18, 2017 (Exec Comm)	✓	✓	✓			✓	✓											
Jan 18, 2017 (Gov Comm)			✓						✓					✓		✓	✓	
Jan 25, 2017 (Reg Comm)								✓		✓		✓	×					
Jan 26, 2017 (VP Branch Visit - Rich/Delta)		✓																
Jan 26, 2017 (Prof Prac Comm)					✓					✓	✓	✓						
Jan 31, 2017 (Audit Comm)				✓		✓			✓					×		×		Meeting cancelled - insufficient attendance
Feb 6, 2017 (Audit Comm)				✓		✓			✓					✓		✓		
Feb 8, 2017 (Nominating Comm)			✓															
Feb 8, 2017 (Planning Session, Pt 1)	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	×	✓	×	×	✓	
Feb 9, 2017 (Geo Comm)													×		×			
Feb 9, 2017 (Planning Session, Pt 2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	×	×	×	✓	✓	
Feb 10, 2017 (Council)	✓	✓	✓	×	✓	✓	✓	✓	✓	×	✓	✓	×	✓	×	×	✓	
Feb 23, 2017 (Gov Comm)			✓						✓					×		✓	✓	
Feb 23, 2017 (Exec Comm)	✓	✓	✓			✓	✓											
Feb 27 - Mar 1, 2017 (Eng Can Board Mtg)	✓																	Ottawa
Mar 1, 2017 (Nom Comm)			✓															
Mar 2, 2017 (CCAG)											✓							
Mar 2, 2017 (VP Branch Visit - Central Int)		×												✓				
Mar 6, 2017 (Question Period)	✓	×	×	×	×	×	✓	×	×	×	✓	✓	×	×	×	×	✓	Victoria
Mar 6 & 7, 2017 (Govt Receptions)	✓	×	×	×	✓	✓	✓	×	×	✓	✓	✓	×	✓	×	✓	✓	Victoria
Mar 8, 2017 (Reg Comm)								✓		×		✓	×					
Mar 9, 2017 (ACEC-BC/APEGBC Joint Exec)	✓	✓	✓			×	✓											
Mar 14, 2017 (ATFCP)															✓		✓	
Mar 16, 2017 (Exec Comm)																		Cancelled - meeting not required.
Mar 29, 2017 (Exec Comm)	✓	✓	✓			✓	✓											
Mar 29, 2017 (CPD Comm)					✓		✓	✓		✓		✓						Councillors attending as observers
Apr 5, 2017 (Special Council Session)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Apr 5, 2017 (Right Touch Regulation)	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	
Apr 6, 2017 (Spring Branch Rep Dinner)	✓	✓	×	×	✓	×	✓	×	✓	✓	✓	✓	✓	✓	✓	×	✓	
Apr 7, 2017 (Spring Branch Rep Mtg)	✓	×	×	✓	×	×	✓	×	✓	✓	×	×	×	×	✓	×	✓	
Apr 6, 2017 (Geo Comm)													✓		✓			
Apr 19, 2017 (Reg Comm)																		
Apr 27, 2017 (Council Forum)																		
Apr 28, 2017 (Council)																		
Apr 20, 2017 (Branch Visit - Vancouver)																		
May 12, 2017 (Industry Breakfast)																		
May 23-28, 2017 (Eng Can Board Mtg)																		St. Johns
May 25, 2017 (VP Branch Visit - Peace River)																		
May 25, 2017 (VP Branch Visit - Van)																		
May 29, 2017 (Exec Comm)																		
May 31, 2017 (Reg Comm)																		
June 2-3, 2017 (Geo Can Board Mtg)																		Yellowknife
June 8, 2017 (VP Branch Visit - Okanagan)																		
June 16, 2017 (Council)																		
June 20, 2017 (Audit Comm)																		
June 28, 2017 (Reg Comm)																		
Aug 9, 2017 (Exec Comm)																		
Aug 16, 2017 (Reg Comm)																		
Aug 23, 2017 (Audit Comm)																		
Aug 28, 2017 (Exec Comm)																		
Sept 8, 2017 (Council)																		
Sept 29, 2017 (Reg Comm)																		
Oct 19, 2017 (Conference)																		
Oct 20, 2017 (Conference)																		
Oct 21, 2017 (AGM)																		
Percentage of Attendance																		

Attendance Required
Attendance Not Required
/// **Meeting Cancelled**
/ **Attendance for Partial Meeting**

(as at April 13, 2017)

Date: April 28th, 2017

Report to: **Council for Decision**

From: Executive Committee;
Jennifer Cho, CPA, CGA
Director, Finance & Administration

Subject: APEGBC Three Year Budget Draft

Linkage to Strategic Plan: Continue to Implement Best Practices in governance.

Purpose:	For Council to review and approve proposed three year budget.
Motion:	That Council approve the FY 2018 APEGBC operating and capital budget, FY2019 & FY2020 proforma budget as presented.

Background

At the April 11, 2014 Council meeting, Council approved the 2014/15 Budget and accepted the 2015/16 & 2016/17 proforma budget as presented. It marked the first ever APEGBC three year budget and was a budget that was fully aligned with the Association's Strategic Plan. It marks a progressive move and is a product of APEGBC Councils pursuit of best practices in governance. Previous budgets have been for one year only and have not been linked closely with a strategic plan. The main features of the three year budget are as follows:

- The three year budget ensures that strategic initiatives that span fiscal years can be funded beyond fiscal year boundaries without disruption to the schedule that is associated with annual budget approvals.
- Contingencies associated with specific initiatives are reduced as there is greater certainty around future commitments.
- Greater predictability of budget and fee increases.
- Council passes a three year strategic plan that is linked with an associated three year budget. At the end of Year 1 and 2, the budget can be adjusted with corresponding updates to the plan.
- Overall, longer term and truly strategic planning is more achievable.

Such is the case with the new 2017-2020 Strategic Plan. APEGBC and its members are facing unprecedented challenges in this era of global economies and global practice. Furthermore, APEGBC has grown as an organization in size, complexity, outlook, and outreach. What information indicates (interviews, focus groups, environmental scans) is that the status quo is no longer an option and APEGBC needs to clearly serve the public interest and show its value as a regulator. This is the basis for the 2017-2020 Strategic Plan.

The Executive Committee met on February 23rd and March 29th to review and provide guidance for the development of the FY2018-FY2020 budget that is being presented to Council. The draft budget has been prepared in accordance with the Council approved 2017/18 Budget Guidelines (Appendix A – Status of Budget Guidelines). Details of the draft FY2018 budget and draft FY2019 & FY2020 proforma budgets are in Tab B of the budget binder.

Where We Are At Currently - FY2017 Forecast

The financial forecast for June 30, 2017 is that APEGBC will be in a surplus position of approximately $575K.

We had budgeted membership revenue conservatively and are currently forecasting to exceed the budget. There are significant savings in salaries expenses due to unfilled positions, maternity leave replacements and delayed hiring. Amortization expenses will be lower due to a lowered capitalization ratio of IT staff time and delays in the office renovation. Other savings include unused contingency funds.

The following table illustrates high level budget cost variances and the FY2017 forecast result **(in $'000):**

FY2017 budget	(139)
Plus significant budget revenue/cost variances:	
Unexpected increase in Membership Revenue	296
Lower than expected Application Revenue	(47)
Payroll savings	277
Amortization savings	113
Unused Contingency	75
Estimated FY2017 Surplus	**575**

Savings & Efficiencies

As per the Council approved Budget Guidelines, there was to be no more than a 2% ($7.60) increase to the current membership fee and with the membership volume increase holding steady at 3%, this would have a serious effect on the ability to fund for inflationary increases to operational expenses and initiatives crucial to implementing the Strategic Plan. In light of this, senior staff and leadership team reviewed the base budget with heavy scrutiny and have found efficiencies and savings that total to $449K in year 1, $397K in year 2, and $321K in year 3. These savings are carried through in the budget scenarios created.

	Description	Y1 Savings ('000)	Y2 Savings ('000)	Y3 Savings ('000)
1	Decreased use of external legal counsel for discipline case management, enforcement and general legal as in house staff are being used as a more economical option	134	134	134
2	Office renovation completed	10	10	10
3	Web support contract concluded (initiative to be extended permanently)	74	52	30
4	Brand redevelopment initiative concluded	70	61	61
5	Payments for software licensing have ended and not continuing	25	25	25
6	Savings realized from Certified Professional Program	23		
7	New contract for lease/rental of copier machines	19	19	19
8	Utilization of digital delivery producing savings in postage for communications	14	16	17
9	Savings in printing and postage for annual billing as many members have elected for electronic copy	14	14	14
10	Streamlined/consolidated IT contracts and licenses	11	11	11
11	Registration staff decrease due to technology enhancements	55	55	
	Total Savings	**449**	**397**	**321**

Planning Session Results

Tab G summarizes a list of 21 initiatives that are aligned to the successful implementation of the strategic plan and categorized as follows:

1.1. PINK – Mandatory – those items that must be done to deliver on mandated regulatory obligations and commitments

1.2. BLUE – Critical - those essential to maintaining our regulatory responsibilities or important initiatives for delivery of the new strategic plan

1.3. YELLOW – Sub-critical - those items that enhance the delivery of the Strategic Plan but could be delayed or omitted with consequences.

From the results of the discussion at the February Planning session, all initiatives were incorporated into the budget scenarios **EXCEPT** for the following *low priority* initiatives that had *low Council Support*:

1. Diversity Strategy Development (meetings and travel) - $3,500 each year. Note that currently, $18,900 has been allocated to support diversity initiatives. These include career awareness grants supporting girls and indigenous outreach, diversity events and research projects with UBC and SFU.

2. Professional Practice Guidelines Seminars at Reduce Fee - $25,000 each year

3. IT Security (Best Practice) – Y1 $54,500, Y2 $45,000, Y3 $45,000
4. CPD Contribution Margin of 20% Removal - Y1 $156,455, Y2 $127,464, Y3 $96,185

Scenarios Considered for the Three Year Budget

The Executive Committee considered two scenarios of the budget in their review – a $0 fee increase in all three years or a $5 fee increase in year 1 with no additional fee increase in the subsequent 2 years. Below is a summary of what the two scenarios would look like:

$0 fee increase	FY2018 Budget (Year 1)	FY2019 Budget (Year 2)	FY2020 Budget (Year 3)
Revenue	16,131	16,967	17,161
Expenses	16,180	16,922	17,076
Surplus/(Deficit)	**(49)**	**45**	**85**

$5 fee increase	FY2018 Budget (Year 1)	FY2019 Budget (Year 2)	FY2020 Budget (Year 3)
Revenue	16,204	17,116	17,314
Expenses	16,180	16,922	17,076
Surplus	**24**	**194**	**238**
Difference	73	149	153

The two scenarios have the exact same assumptions except that the $5 fee scenario includes additional membership revenue from the $5 fee increase ((Y1 - $73K, Y2 - $149K, Y3 - $153K). Note that the $0 fee increase scenario has a small deficit in year 1; however, this is not an issue as we are projecting a surplus in the current fiscal year that will be transferred into the reserve fund that will more than cover the small deficit.

The additional revenue from the $5 fee increase produced is not a significant amount above what the $0 fee increase scenario would produce and likely not required for this three year budget cycle given what we know today. More importantly, the $0 fee increase scenario has a modest total surplus of $81K in three years, which provides sufficient financial flexibility to the association.

In light of the changes to revenue and expenses in addition with the forecast of the current fiscal year to be approximately $575K surplus, the Executive Committee recommends the $0 fee increase scenario in all three budget years.

Highlights of the Draft FY2018 Budget

('000s)	FY2018 Budget (Year 1)	FY2019 Budget (Year 2)	FY2020 Budget (Year 3)
REVENUE			
Membership	10,249	10,557	10,873
Other	5,032	5,310	5,287
External grants	850	1,100	1,000
Total Revenue	16,131	16,967	17,160
EXPENDITURES			
Operating	15,378	15,890	16,123
External grants	802	1,032	952
Surplus/(Deficit)	(49)	45	85

The following are some highlights. Please see Tab B for full detailed program statements.

A. Revenue Highlights for the Budget Scenarios:

1. Estimated membership growth of 3% based on actual collection data analysis. Note Y1 increase includes 3% growth coupled with an adjustment to the base budget to reflect current year increase in collected fees (Y1 - $743K, Y2 - $307K, Y3 - $317K)
2. Working in Canada Seminar Licensing revenue and some application/registration volume increase will generate an increase in revenues (Y1 - $164K, Y2 - $8K, Y3 - $16K) offset by a decrease in professional practice exams (PPE) due to large influx in prior years which will result in a slowing down of exams in the coming years (Y1 – ($74K).
3. National initiatives such as Competency Based Assessment (CBA), CBA Geoscience Canada, and OQM National will generate revenue (Y1 - $212K, Y2 - $189K, Y3 – (-$89K))
4. Registration Ancillary Fees are maintained at current levels as recommended by Executive Committee. See Tab C for the report that was provided to the Executive Committee.

B. Expense Drivers Affecting the Budget Scenarios:

Long term planning through the three year strategic plan and the associated budget marks the beginning of a deliberate transformation of APEGBC from a reactive, regulatory body that professionals are obligated to join to a relevant, proactive, forward-thinking regulator that serves the public interest. A detailed list of 21 initiatives that facilitate the ability to deliver on the activities in the summary is provided in Tab G of the binder.

In addition to these initiatives, the following are some highlights to the expenses budget:

1. Staffing: 3% budget allocation for merit increases increases (Y1 - $130K, Y2 - $161K, Y3 - $231K); additional staff resources (Y1 - $513K) to support Practice Guideline Upgrading work, improve the file clearance times for Investigation/Discipline cases, web support, and OQM support.
2. Promotional campaign for Branding Strategy – Mid Range – (Y1 - $150K, Y2 - $50K, Y3 - $50K)
3. Contingency increase to allow for more flexibility of funds for programs that may go ahead in the future but at present have undeterminable costs. Examples include professional renewal, corporate practice, national Competency Based Assessment or regulatory model research/assessments. – (Y1 - $20K, Y2 - $145K, Y3 - $0K)
4. Savings (Y1 - $449K, Y2 - $397K, Y3 - $321K) noted on page 3 of this memo

Reserves

As per budget guideline 6, a review and assessment of the appropriate level of funding for the General Operating Fund, Property, Equipment and Systems Replacement Fund and the Legal & Insurance Fund is to be done as a part of the budgeting process - as is budget guideline 10 to consider annual capital replacement transfer.

The projections of the three fund balances for the two scenarios are as per below in **('000):**

	General Operating Fund	Property, Equipment and Systems Replacement	Legal and Insurance	Total Funds
June 30, 2016 Actual	**6,246**	**1,514**	**500**	**8,260**
FY2017 Forecast	575			
FY2018 Budget	(49)			
FY2019 Budget	45			
FY2020 Budget	85			
June 30, 2020 Budget	**6,902**	**1,514**	**500**	**8,916**

The reserves at June 30, 2020 is forecasted at $8.9M. Council can at any point in time re-appropriate the Legal & Insurance Fund and the Property, Equipment and Systems Replacement Fund back to the General Operating Fund.

As per independent consultant MNP, industry standard for total reserve funds is 3-6 months of operating expenses. As per the projection above, APEGBC has an appropriate and healthy level of reserves currently based on the projected surplus in the current year and taking into account the projected FY2017 budget. APEGBC will be able to maintain a minimum 6 months of operating expenses (based on FY2016 actual expenses of $1.2M per month).

Recommendation

That Council approve the FY 2018 APEGBC operating and capital budget, FY2019 & FY2020 proforma budget as presented.

Appendix A – Budget Guidelines Status Update

Budget Guideline	Status
1. The Sustainable Financial Management Policy (Appendix I) will be the foundation for guiding budget preparation.	Achieved. See Section B of Budget Book for details.
2. Apply the APEGBC Strategic Plan, Council Work Plan (Roadmap) and Key Performance Indicators to budget development.	Applied.
3. Strive to keep the overall budget increase to be less than 5% each year.	Y1 – 4.3% increase in expenses, Y2 – 4.6% increase in expenses, Y3 - 0.9% increase in expenses.
4. Strive for no more than a 2% per year increase of the annual professional member fee increase for 2018, 2019, 2020.	Achieved. No fee increase.
5. Consider potential changes to prior year budget as follows: Opportunities for efficiencies by programs & departments; new program initiatives/nondiscretionary budget changes.	Achieved. Y1 - $449K, Y2 - $397K, Y3 - $321K
6. Review and assess the requirements and appropriate level of funding for the General Operating Fund, Property, Equipment and Systems Replacement Fund and the Legal and Insurance Fund.	Achieved.
7. Staffing levels be generally determined by authorized program improvements, growth and membership growth.	Additional resources of 5 new staff assuming approvals of all program initiatives.
8. Review program contribution margins and strive for financial self-sustainability on a direct cost basis.	Achieved.
9. Final 2017/2018 budget approval and 2018/19 and 2019/2020 proforma budget should be sought at the Council meeting in April 2017.	Applied.
10. That an annual capital replacement transfer be considered.	Applied.

APEGBC FY2018- FY2020 Budget Book

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Sustainable Financial Policy

Policy	Outcome
All initiatives and financial expenditures are aligned to the Strategic Plan.	All program initiatives and savings are identified and linked to at least one strategic plan objective.
There is an annual review of economies, efficiencies and effectiveness of current expenditures, revenue strategies and initiatives.	Cost management and operation efficiencies are a important part of the budget process. Significant savings had been identified and have been incorporated.
The Applications and Registration program (the intake process) will be financially self-sustaining on a direct cost basis.	Contribution margin of $476K is budgeted in FY2018.
The Continuing Professional Development instructional and service delivery will be financially self-sustaining on a direct cost basis.	20% net margin budgeted each year.
All other programs with direct revenues should strive to be financially self-sustaining on a direct cost basis.	Most other programs such as affinity were self-sustaining recovering all direct costs including salaries and benefits.
Membership growth is actively pursued.	Membership growth is funded in the operating budget which includes the allocation of staff time to registration outreach programs. A variety of advertising and branding initiatives are to be implemented.
The annual member fee is reviewed each year	As part of budget review and approval process.

	B	C	D	E	F	G	H	I
2	**Budgets**	**FY2017 (Current Budget)**	**FY2018 (Year 1)**	**Budget Change FY2017 to FY2018**	**FY2019 (Year 2)**	**FY2020 (Year 3)**	**Comments**	**Initiatives Item #**
3								
4	**Revenues**							
5	Member Services							
6	Affinity Program	405,000	408,000	3,000	413,000	418,000		
7	Annual Conference	280,000	273,000	(7,000)	303,800	303,800	Difference due to venue change from Vancouver to Kelowna to Victoria	
8	Professional Development	1,012,225	1,012,225	0	1,012,225	1,012,225		
9		1,697,225	1,693,225	(4,000)	1,729,025	1,734,025		
10	Communications & Stakeholder Engagement							
11	Innovation Magazine	175,000	190,000	15,000	190,000	190,000	Increase based on prior year actual result	
12	Sponsorship Revenue	7,800	7,800	0	7,800	7,800		
13	Student Membership	49,000	45,000	(4,000)	45,000	45,000		
14	Employment Web Advertising	305,000	320,000	15,000	325,000	330,000	Increase based on prior year actual result at $316K	
15		536,800	562,800	26,000	567,800	572,800		
16	Professional Practice, Standards & Development							
17	Certified Professional Program	80,563	52,500	(28,063)	70,000	52,500	Year 1: APEG shares 70% of code upgrade course with 150 attendees. Year 2: 70% share of full CP course and code training course. Year 3: structure reverses back to year 1 due to course cycle	
18	Organizational Quality Management	163,000	224,000	61,000	246,000	291,000	Changes due to volume increase in membership and new national OQM initiative.	
19	Grant	1,120,000	850,000	(270,000)	1,100,000	1,000,000	Changes due to project progress and contract schedule	
20		1,363,563	1,126,500	(237,063)	1,416,000	1,343,500		
21	Registration							
22	Academic Exams	49,800	34,800	(15,000)	34,800	34,800	Reflects anticipated volumes decreasing in favour of Fundamentals of Engineering Exam now accessible in BC	
23	Applications/Registration	1,263,050	1,426,650	163,600	1,434,650	1,450,650	Increase due to volume increase in application and registration. Plus new revenue of Working in Canada seminar licensing after completion of grants project.	
24	Limited License	12,750	18,000	5,250	22,500	29,250		
25	Professional Practice Exams	503,000	429,214	(73,786)	429,214	429,214	Expected volume decrease due to large influx in prior years	
26	APEC Register	3,000	0	(3,000)	0	0		
27	Structural Qualifications	53,114	54,514	1,400	54,514	54,514		
28	Registration External Projects	216,000	109,281	(106,719)	102,084	104,125	Decrease due to project completion of Working in Canada and Cad Working Experience	
29		2,100,714	2,072,459	(28,255)	2,077,762	2,102,553		
30								
31	Annual Membership Fees	9,506,285	10,249,289	743,004	10,556,768	10,873,471	Assumed 3% volume increase based on prior year statistics. A larger increase in year 1 due to redesigned collection management.	
32	Late Fee	29,120	40,370	11,250	41,873	43,130		
33	Investment Revenue	92,933	53,598	(39,335)	56,165	58,731	Adjusted to tie with prior year actual to reflect lower interest rates	
34	Other Revenue	47,998	120,294	72,296	120,294	120,294	Adjusted to tie with prior year actual	
35	National Programs - CBA Engineer Canada		192,488	192,488	319,113	224,898	New national initiative	
36	National Programs - CBA Geo Canada			0	50,000	62,500	New national initiative	
37	National Programs - OQM National		20,000	20,000	32,500	25,000	New national initiative	
38	**Total revenues**	**15,374,638**	**16,131,023**	**756,385**	**16,967,299**	**17,160,902**		
39								
40	**Expenses**							
41								
42	Finance & Corporate Services							
43	Annual Invoicing	46,697	41,851	(4,846)	43,106	44,399	Savings of $14K in printing offset by increase postage	
44	Building Operations	349,104	359,898	10,794	370,695	381,816		
45	Administrative Services	26,116	36,188	10,072	36,704	32,235		
46	Green Team	3,000	1,245	(1,755)	1,282	1,320		
47	Non Program Specific	691,665	670,154	(21,511)	674,826	696,089	Reduction due to saving of $34K in equipment leasing and misc costs, offset by increased copy supply costs and increased credit card processing fees driven by volume increase	
48	Salaries & Benefits	829,320	854,987	25,667	878,571	902,862	Changes due to merit increase	
49		1,945,902	1,964,324	18,422	2,005,184	2,058,722		
50								
51	Human Resources							
52	Staffing	26,384	26,400	16	30,300	181,768		
53	Training and Development	86,345	80,900	(5,445)	82,500	84,100		
54	Staff Recognition	41,228	41,500	272	47,750	49,000		
55	Occupational Health and Safety	1,239	1,250	11	1,300	2,300		
56	Volunteer Management	23,550	28,000	4,450	29,000	30,000		
57	Compensation Management	3,000	5,000	2,000	35,000	5,000		
58	Strategic HR and Organizational Development	5,000	20,000	15,000	17,500	21,500	Increase due to new health & wellness program	
59	Non Program Specific	1,943	1,950	7	1,950	1,950		
60	Salaries & Benefits	238,348	247,182	8,834	254,077	264,634		
61		427,037	452,182	25,145	499,377	640,252		
62								
63	Information Technology							
64	Run - Business Continuity	310,634	345,530	34,896	350,020	349,880	Increase due to PCI compliance requirements for data and privacy protection . Offset by savings of $36K in existing operation through renegotiated contracts and licenses.	2, 12
65	Telecommunications	92,490	85,552	(6,938)	89,702	87,902		
66	Grow - Systems & Development	10,000	10,000	0	10,000	10,000		
67	Non Program Specific	6,500	7,000	500	7,000	7,000		
68	Salaries & Benefits	857,274	930,808	73,534	956,650	983,267	Increase due to lower capitalization of IT resources due to project and priority changes	
69		1,276,898	1,378,890	101,992	1,413,372	1,438,049		
70								
71	Member Services							
72	Affinity Program	1,250	1,250	0	1,250	1,250		
73	Annual Conference	367,930	373,291	5,361	401,137	384,622	Difference due to venue change from Vancouver to Kelowna to Victoria	
74	Professional Development	489,246	500,052	10,806	507,966	517,940		19
75	Mentoring	16,000	16,000	0	16,000	16,000		
76	Branches/Divisions	68,050	68,050	0	68,050	68,050		
77	Member CPD Requirements	2,069	6,169	4,100	5,169	5,169		
78	Induction Ceremony and Former Presidents Dinner	70,020	82,020	12,000	82,020	82,020	Increased food and beverage costs due to higher number of attendees	
79	Gender Diversity	0	7,500	7,500	7,500	7,500		3
80	Nomination & Election Task Force	0	5,600	5,600	5,600	5,600		20
81	Salaries & Benefits	780,038	806,024	25,986	828,256	851,416	Changes due to projected merit increase	
82		1,794,603	1,865,956	71,353	1,922,948	1,939,567		
83								
84	Communications & Stakeholder Engagement							
85	Awards	59,542	55,542	(4,000)	54,042	56,742		
86	Career Awareness	50,450	64,500	14,050	64,500	64,500	Increase mainly due to increase in number of grants	
87	Innovation Magazine	316,370	307,120	(9,250)	310,120	314,420		

	B	C	D	E	F	G	H	I
2	**Budgets**	**FY2017 (Current Budget)**	**FY2018 (Year 1)**	**Budget Change FY2017 to FY2018**	**FY2019 (Year 2)**	**FY2020 (Year 3)**	**Comments**	**Initiatives Item #**
88	Employment Web Advertising	2,800	0	(2,800)	0	0		
89	Public Relations	83,550	253,550	170,000	133,550	133,550	Year 1's increase due to public and member campaign to support promotion of the Professions and Organizational Brand strategy, plus one time cost for 4th Wave of Triennial Public Opinion Survey and Consultation w/ Employer focus group on Eng.L. title. Year 2's savings from a smaller promotion campaign and reduction of these one times costs in year 1.	6, 14
90	Publications	39,391	44,191	4,800	44,191	44,191		
91	Stakeholder Engagement	46,800	46,800	0	186,800	71,800		15
92	Student Membership & Sponsorship	55,200	52,800	(2,400)	52,800	52,800		
93	Branding Collateral Renewal	9,000	0	(9,000)	0	0		
94	Brand Strategy	61,250	0	(61,250)	0	0	Savings from completed initiative in prior year	
95	Non Program Specific	4,600	18,600	14,000	17,600	17,600		
96	Salaries & Benefits	871,015	893,414	22,399	914,035	939,345	Projected merit increase, and changes due to one new FTE for editorial/web support offset by savings from ending contract position of web support.	4, 5
97		1,599,968	1,736,517	136,549	1,777,638	1,694,948		
98								
99	Council & Executive							
100	Engineers Canada Assessment	428,408	443,385	14,977	458,899	474,970	Increase due to annual member volume growth	1
101	Geoscientists Canada Assessment	82,159	85,955	3,796	92,754	100,097	Increase due to annual member volume growth	1
102	Council/Executive	164,752	193,070	28,318	215,570	198,070	Increase mainly due to increased Council travel as larger number of Council members from outside of lower mainland.	7, 8
103	Elections	17,170	22,670	5,500	22,670	22,670		
104	Government Relations	117,367	138,500	21,133	140,400	142,338	Year 1's increase due to events to engage with the governing and opposition MLAs	
105	Special Project: Legislative Consultation	0	30,000	30,000	30,000	30,000	Enhancing support for our regulatory role through engagement of stakeholders.	6
106	Special Project: FIPPA Audit		15,000	15,000	0	0		13
107	Special Project: Labor Market Studies	15,000	10,000	(5,000)	10,000	10,000		16
108	Non Program Specific	4,692	4,592	(100)	4,592	4,592		
109	Salaries & Benefits	871,711	910,905	39,194	939,740	959,267	Merit increase	
110		1,701,259	1,854,077	152,818	1,914,625	1,942,004		
111								
112	Professional Practice, Standards & Development							
113	Liaison with Authorities	1,500	1,500	0	1,500	1,500		
114	Practice Review	176,600	176,600	0	176,600	176,600		
115	Professional Practice	118,955	168,955	50,000	168,955	168,955	Consultant costs in year 1 to update guidelines	4
116	Certified Professional Program	95,666	53,500	(42,166)	64,300	53,500	Operating costs changes in relation to revenue cycle above	
117	Climate Change Initiatives	20,000	20,000	0	20,000	20,000		
118	Organizational Quality Management	163,000	150,500	(12,500)	180,000	202,500	Operating costs changes in relation to revenue cycle above	11
119	Dam Site Characterization Assessments	0	0	0	0	0		
120	Sustainability	900	900	0	900	900		
121	Non Program Specific	14,251	14,251	0	14,251	14,251		
122	Grants	1,040,000	802,000	(238,000)	1,032,000	952,000	Changes due to project progress and contract schedule	
123	Salaries & Benefits	961,406	1,225,031	263,625	1,250,910	1,286,009	2 new FTE for guidelines revision and lead auditor for OQM program.	4
124		2,592,278	2,613,237	20,959	2,909,416	2,876,215		
125								
126	Legislation, Ethics & Compliance							
127	Discipline	253,000	217,139	(35,861)	217,139	217,139	Savings by utilizing in house staff	
128	Enforcement	30,000	13,552	(16,448)	13,552	13,552	Savings by utilizing in house staff	
129	Investigations	132,775	132,775	0	132,775	132,775		
130	Non Program Specific	130,125	48,106	(82,019)	48,106	48,106	Savings by utilizing in house staff	
131	Salaries & Benefits	594,871	780,329	185,458	803,481	826,006	Year 1 increase from new FTE for investigation manager and paralegal, offset by one full time staff converting to part-time.	10
132		1,140,771	1,191,901	51,130	1,215,053	1,237,578		
133								
134	Registration							
135	Academic Exams	34,500	23,500	(11,000)	23,500	23,500	cost saving in relation to revenue changes above	
136	Applications/Registration	176,500	221,085	44,585	177,500	186,500	cost changes due to volumes	6
137	Engineers In Training/Geoscientists In Training Prof. Certification	17,000	12,000	(5,000)	27,000	42,000		
138	Limited License	4,000	50,000	46,000	30,000	30,000	Funds to continue title consultation with employers and sample of members. To inform government, members, AScTs and other key stakeholders regarding the risk of two identical independent practice right models and to implement recommendations for further action.	
139	Professional Practice Exams	362,000	363,714	1,714	363,714	363,714		
140	APEC Register	1,500	0	(1,500)	0	0		
141	Structural Qualifications	9,300	15,300	6,000	15,300	15,300		
142	Registration External Projects	137,500	8,000	(129,500)	8,000	8,000	Changes due to project completion of Working in Canada and Canadian Working Experience Program	
143	Non Program Specific	22,636	22,636	0	22,636	22,636		
144	Salaries & Benefits	1,595,704	1,594,468	(1,236)	1,578,278	1,622,609	Merit increase offset by savings in one less FTE in year 1 and year 2.	
145		2,360,640	2,310,703	(49,937)	2,245,928	2,314,259		
146								
147	National Programs - All		183,000	183,000	263,000	180,048	Resources such as contract services for developer and registration coordinator to support national programs such as Competency Based Assessment (CBA) with Engineers Canada and Geoscientists Canada, & OQM National.	
148								
149	**Total expenses from above**	14,839,356	15,550,785	711,429	16,166,542	16,321,641		
150								
151	Amortization	596,360	530,827	(65,533)	507,147	505,706	Reduction due to fully amortized assets purchased in prior years	
152	Contingency	75,000	95,000	20,000	245,000	245,000	Increased to address possible costs such as CEO recruitment	9
153	Foundation	3,000	3,000	0	3,000	3,000		
154	Benevolent Fund Society	500	500	0	500	500		
155	**Total expenses**	**15,514,216**	**16,180,112**	**665,896**	**16,922,188**	**17,075,847**		
156								
157	**Surplus/(deficit)**	**(139,578)**	**(49,089)**	**90,489**	**45,111**	**85,056**		

Date: February 20, 2017

Report to: **Executive Committee**

From: Gillian Pichler, P.Eng.
Director, Registration

Subject: **Registration Ancillary Fee Review and Recommendations**

Linkage to Strategic Plan: Enabling Goal

Purpose:	To update the Executive Committee on APEGBC's registration ancillary fees with respect to compliance with the Sustainable Financial Model and comparison with fees charged by other engineering and geoscience regulators in Canada.
Motion:	i. that the Ancillary Fee levels and the Member-in-Training Annual Fee be maintained at current levels through fiscal 2020, subject to an annual review to identify extenuating circumstances that merit changes to the fees; and ii. that the suite of reduced fee programs be reviewed in 2018 and a recommendation be brought to Council by June 2017.

Purpose

To update the Executive Committee on the status of registration ancillary (application-related) fees and to recommend a strategy for the Professional Practice Examination fee.

Background

APEGBC is the fourth largest engineering jurisdiction in Canada with respect to membership and the second largest jurisdiction in which regulatory and member services activities are combined, Alberta being the largest

<u>Legislation Related to the Setting of Fees</u>
The Act empowers the Council to set;

- (Section 21) the annual fee for members (P.Eng., P.Geo.) and licensees (P.Eng., P.Geo., Eng.L. and Geo.L.) and holders of Certificates of Authorization;
- to pass, alter and amend bylaws for application, admission, licensing and professional liability insurance and any other fees except, with respect to members, licensees and certificate holders, late fees, annual fees and reinstatement fees
- (Section 14.1) impose a fee for interprovincial agreements to practice

The Bylaws (Sections 7 and 10) allow Council to set examination, examination of credentials (application) and administrative (licensing) fees.

Sustainable Financial Policy & Budget Process Guidelines

Council's Sustainable Financial Policy approved on January 24, 2014 and reaffirmed in 1.3 of the 2017/18 Budget Guideline states in part:

The Applications and Registration program (the intake process) will be financially self-sustaining on a direct cost basis.

Traditionally since January 2013, due to inflated registration-related fees at that time, an annual review has been done to

1. *Review opportunities for a decrease in registration related ancillary fees*; and
2. *Review program contribution margins on a direct cost basis*.

Recent Fee Adjustments

- In 2016 with the inception of Computer-Based Testing for the Professional Practice Examination, Council raised the fee to $310.
- In 2016 the online Professional Engineering and Geoscience Practice in BC Online Seminar replaced the in-person/CD Law & Ethics Seminar and the fee was reduced from $345 to $275
- In 2015, Council reduced the transfer fee for Professional Engineers and Professional Geoscientists from other Canadian jurisdictions by $50 to $250 to better align it with those of other jurisdictions.

Discussion

Contribution Margins

On a direct cost basis, historical net contributions from activities included in the intake process are in the order of $300,000 to $400,000. For Fiscal 2018, the contribution margins are expected to continue close to 2017 levels. Information on the split between intake and non-intake registration activities is in Appendix A.

Fiscal Year	Contribution Margin
2017 Forecast	$329,162
2018 Budget	$363,395

APEGBC Fees Typically Higher than other Jurisdictions

Appendix A compares APEGBC's registration-related and non-professional member/licence annual fees (e.g. those established under the bylaws for EIT, GIT, provisional member, non-practising) to those in selected other jurisdictions. The overall cost to complete an individual (non-company) application is higher in BC than in Alberta or Saskatchewan, largely due to the $250 registration (one time administration) fee that is only charged by BC, Manitoba and Ontario; and BC's higher fee for the Professional Practice examination fee that includes an essay in addition to the multiple choice examination.

New Fee in 2018: Working in Canada Seminar

In consultation with the other Canadian jurisdictions, APEGBC will be establishing a fee in FY 2018 for the Working in Canada Seminar that was developed by APEGBC in consultation with the other provinces and territories. This fee will be brought to Council for approval when the proposed fee structure has been established.

Reduced, Retired and Life Member Fees

In FY 2018, the suite of reduced, retired and life member fees and APEGBC's goals in establishing them will be re-examined to determine their intended purpose and whether it is being met. There has been significant concern on the part of members with respect to the new two year limit on paying reduced fees; and questions regarding the fairness of certain reduced fees and the Life Membership program.

Recommendation

i. that the Ancillary Fee levels and the Member-in-Training Annual Fee be maintained at current levels through fiscal 2020, subject to an annual review to identify extenuating circumstances that merit changes to the fees; and

ii. that the suite of reduced fee programs be reviewed in 2018 and a recommendation be brought to Council by June 2017.

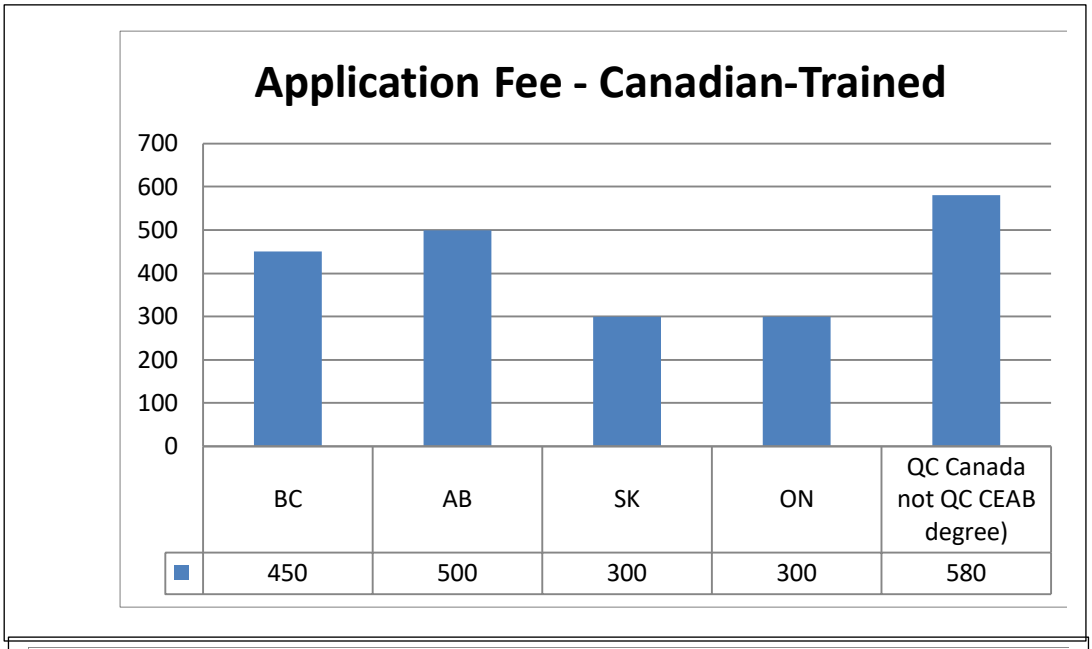
Appendix A – Registration Ancillary Fee Comparison with Other Provinces

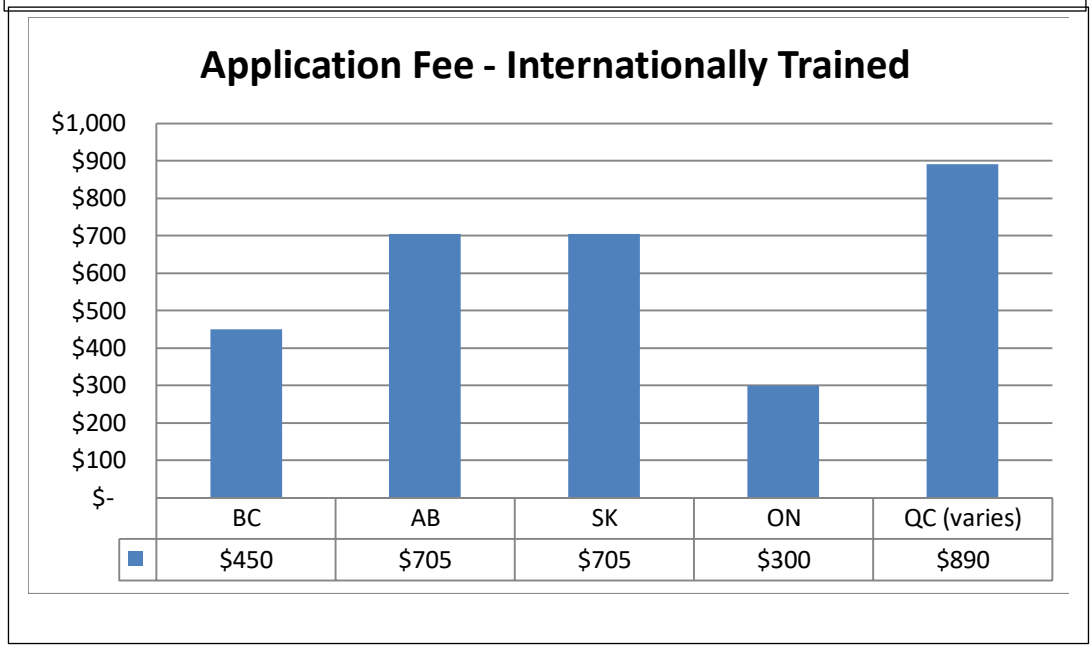
Appendix A – Ancillary Fee Comparison with Other Provinces

(Fee structures differ among jurisdictions as some bundle fees or have fees for different stages of assessment. The fees reported here are those closest in structure to APEGBC fees.)

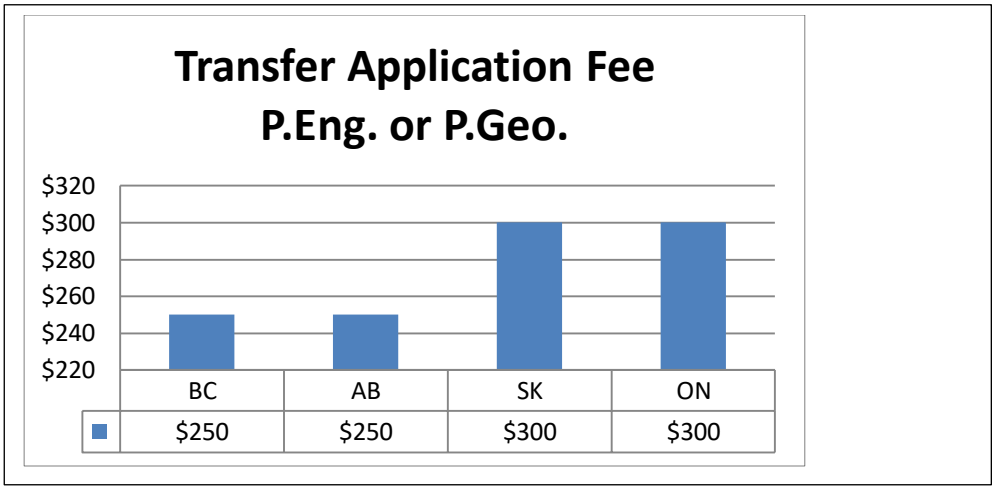
Table of Contents

1. Application Fees – New P.Eng. and P.Geo. Applicants

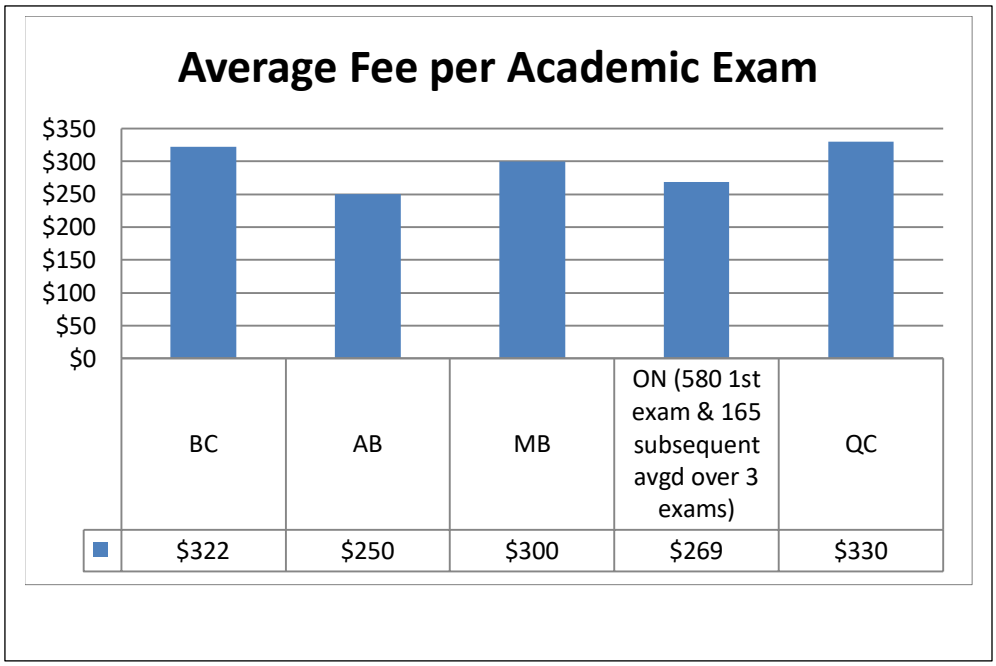




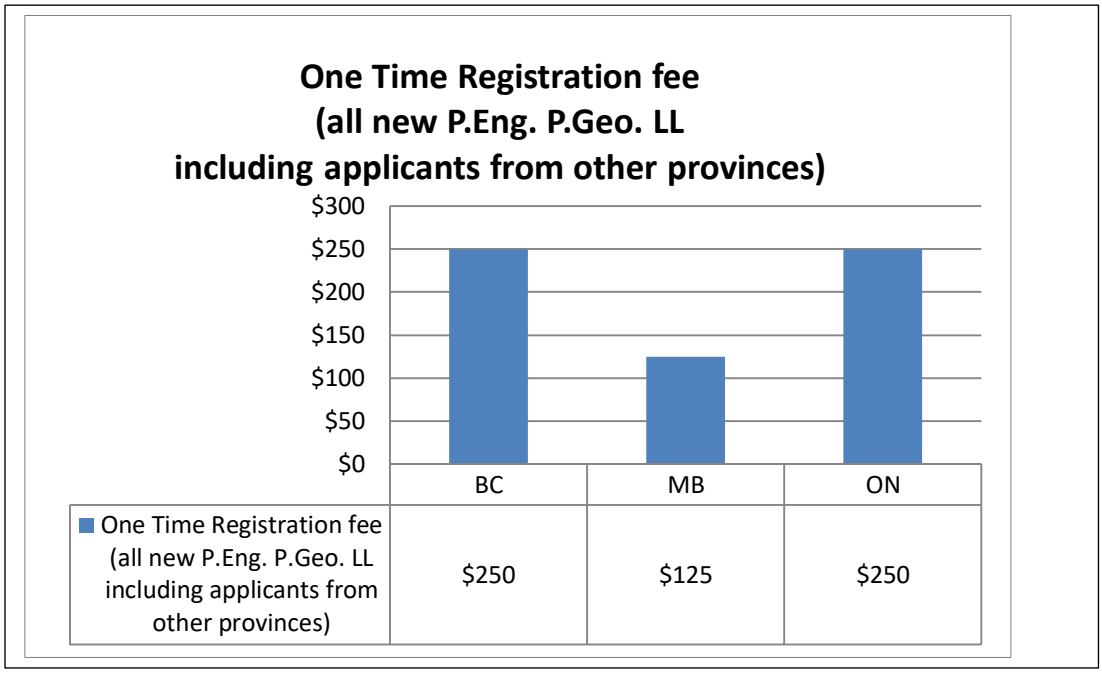
2. Application Fee – Mobility Transfers P.Eng. and P.Geo.



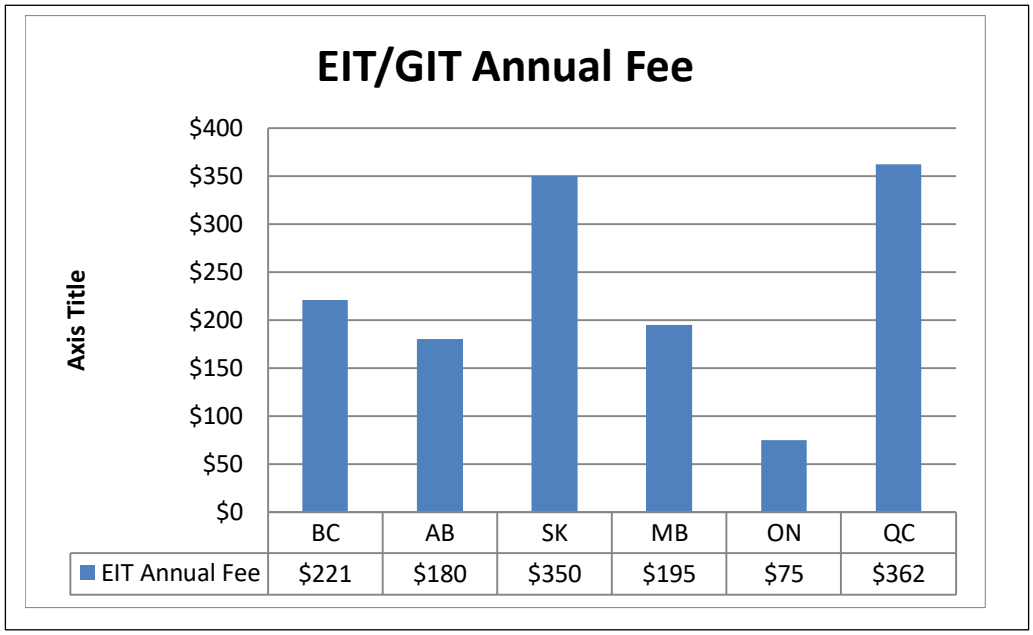
3. Academic Examination Fees



4. Registration (Stamp & Certificate) Fee



5. EIT/GIT Annual Fee

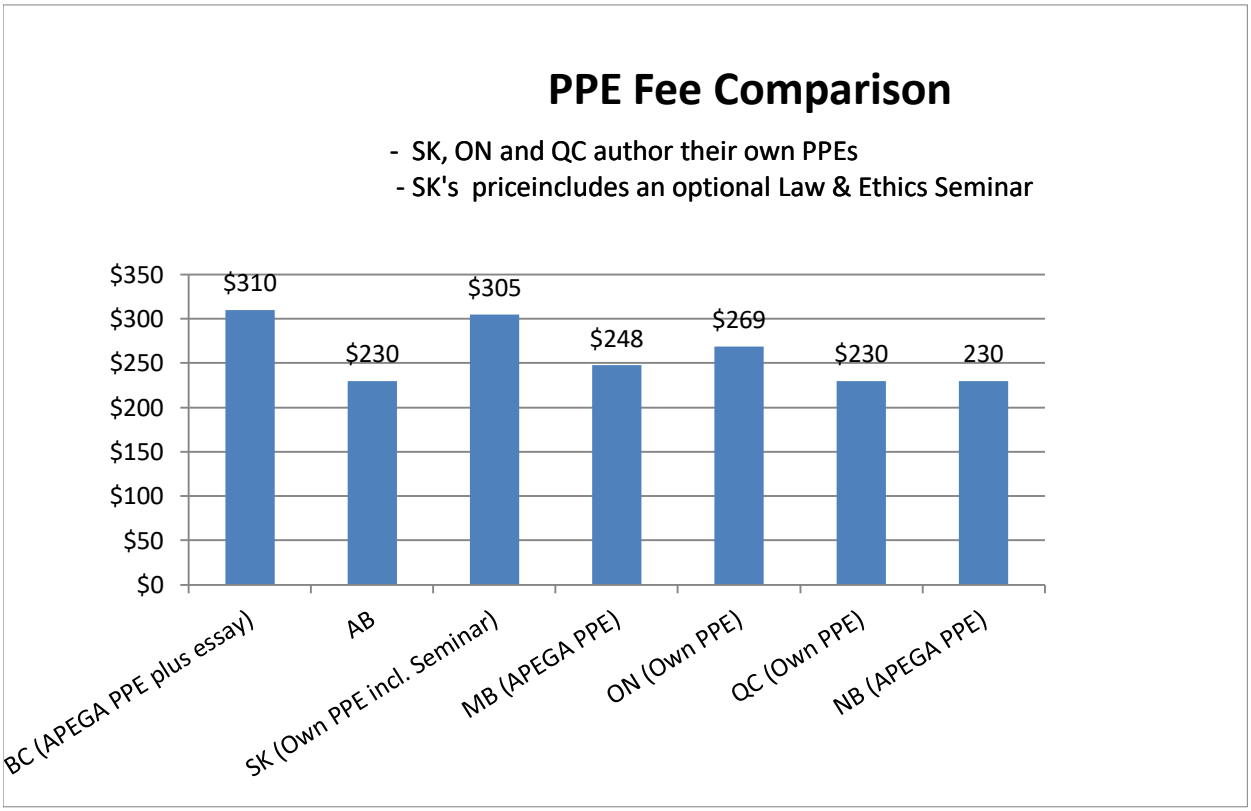


EIT/GIT Program

The third highest in the six jurisdictions , in the past the annual Member in Training fee did not reflect the cost of administering APEGBC's rather modest Member-in-Training Program and resulted in a significant contribution to overhead.

In 2016, the Accredited Employer Member in Training Program was implemented and in 2017 the Enhanced Member in Training Program began. These two programs currently enhance the training and application process for a relatively small number of Engineers in Training, but provide significant value for the Engineer-in –Training experience to those affected. It is expected that the numbers of Engineers in Training in each program will grow over the next three years, but that Geoscientists-in-Training will likely not be able to take advantage of these programs until competency-based assessment of experience for geoscience applicants is in place.

6. Professional Practice Examination Fee



- APEGBC is the only jurisdiction that uses the APEGA multiple choice PPE and also requires an additional essay on an ethics issue. This is one test of the applicant's ability to write in English.
- APEGS Exam price includes optional attendance at a Law & Ethics Seminar

- APEGA would charge $330 to an APEGA applicant wishing to write the exam (without the essay) at a test centre located in B.C. (without the essay)
- APEGBC cost includes administering the examination (applications, communication with applicants, proctoring, courier, data entry) and marking the essay
- APEGA raises exam prices approximately every 2 years by about $25. This increased cost is passed on to the applicant.

7. Cost of Registration Process for 3 Provinces

(not including corporate practice application fees that may be applicable in AB and SK)

APEGBC	Application Fee	Registration Fee	Professional Practice Exam	Law & Ethics Seminar	Total
Inter-Association Transfer	250	250	-	-	**500**
New P.Eng./P.Geo. - Internationally or Canadian Educated	450	250	310	275	**1285**

APEGA	Application Fee	Credential Evaluation Fee	Registration Fee	Professional Practice Exam	Law & Ethics Seminar	Total
Inter-Association Transfer	250			-	-	**250**
New P.Eng.-P.Geo.						
- Canadian Educated	500			230	0	**500**
- Internationally Educated	500	205		230	0	**935**

APEGS	Application Fee	Credential Evaluation Fee	Registration Fee	Professional Practice Exam	Law & Ethics Seminar	Total
Inter-Association Transfer	300			-	-	**300**
New P.Eng.-P.Geo.						
- Canadian Educated	300			305	incl	**605**
- Internationally Educated	500	205		305	0	**1010**

8. INTAKE PROCESS: INCLUDED AND EXCLUDED ACTIVITIES RE: SUSTAINABLE FINANCIAL POLICY

a. Included Activities

i. processing and evaluations of applications for:
   a. EIT/GIT
   b. P.Eng./P.Geo. (Registered Membership)
   c. Licence (Non-Resident)
   d. Provisional Membership
   e. Limited Licence
   f. Designated Structural Engineer
   g. Reinstatements to Membership or Licence in the above categories

ii. outreach to Internationally Trained Engineers

iii. administration costs related to (i), including:
   a. staff & volunteer training & out of pocket & travel expenses
   b. outreach to Internationally Trained Engineers, students and other prospective non-member applicants
   c. Administration of activities associated with the Registration Committee, Geoscience Committee, and Registration Task Force
   d. budgeting activities related to (i)

iv. legislation and policy development specifically related to (i) through (iii)

v. statistical research and reporting related to (i) that is for <u>internal use</u> aimed at monitoring and improving the process.

vi. Information Technology design, development, maintenance projects, including project management and support of the online application system

b. Excluded Activities

i. changes to member status currently set out in Bylaw 10
   a. Life Membership
   b. Honorary Life Membership
   c. Resignations and Removals
   d. Non-Practising Membership
   e. Conversions from Non-Practising to Practising Membership

ii. the Enhanced Engineering/Geoscientist in Training Program and the Accredited Employer Training Program including,
   a. program research, development and administration,
   b. interim review of experience.
   c. general presentations, outreach, training and support to Engineers and Geoscientists in Training, their supervisors, mentors and employers

iii. Annual fee renewal activities

iv. Member support and maintenance, including replacement stamps, certificates, confirmations of membership to external parties, removals from the register and roll,

v. Support to Council and Executive that is not directly related to the current admissions process, such as the AGM, ASTTBC Joint Board, Incidental Practice, analysis of admissions issues across Canada

vi. General APEGBC overhead as long as there is no approved policy to allocate it to operational programs (overhead includes building and support systems expenses, & maintenance, finance, administration and IT salaries to support the intake process)

vii. External Relations:
    a. development, negotiation of Mobility Agreements
    b. Engineers Canada and CCPG activities and reporting
    c. Grant-funded programs and pilots
    d. Government relations not directly related to a specific application for admission
    e. agreements with third parties (e.g. Memoranda of Understanding, Mutual Recognition Agreements).
    f. Advisory Committee (external) activities
    g. support to third-party research activities

viii. Staff activities not related to the intake process

Association of Professional Engineers and Geoscientists of BC

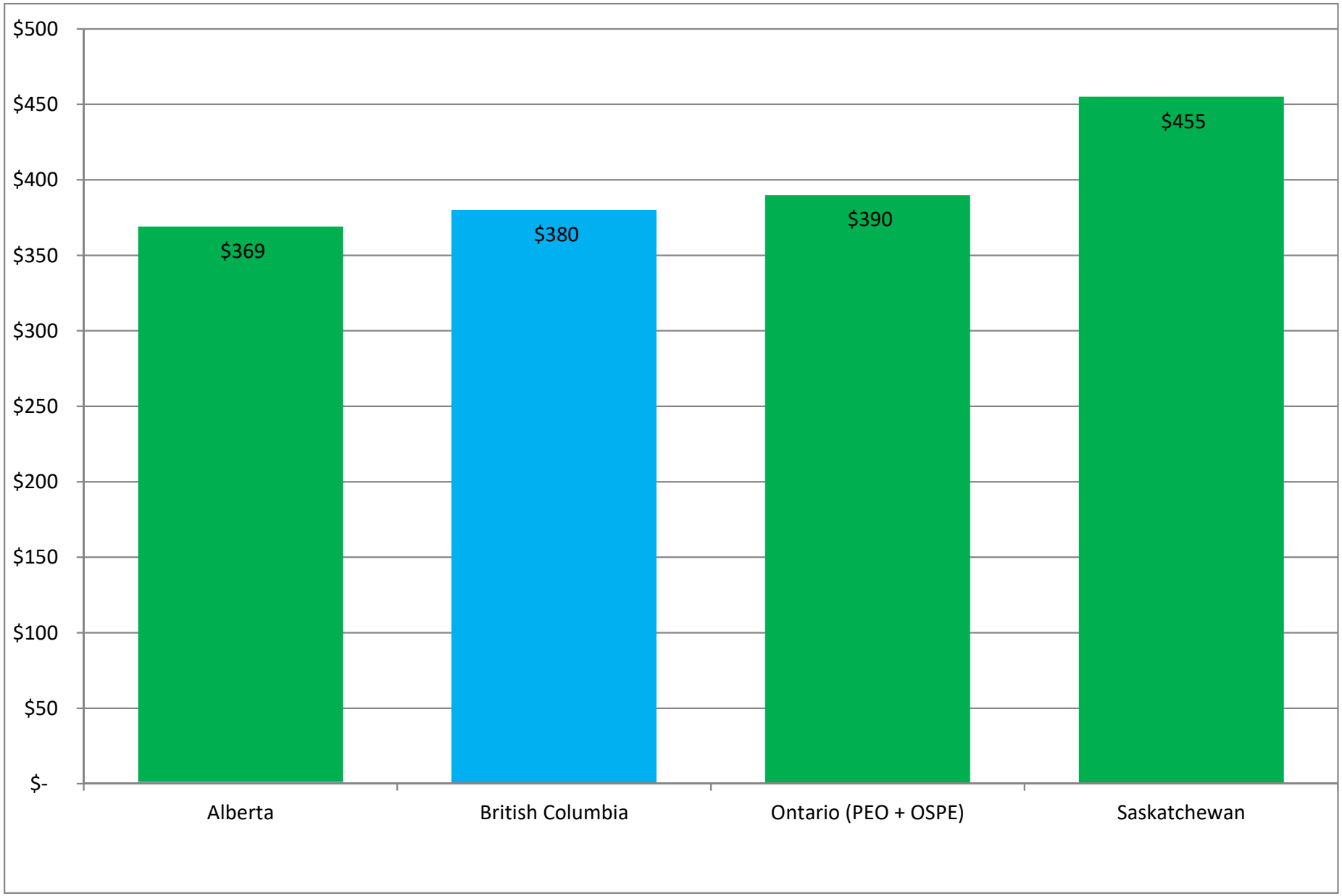
Contribution Margin by Program

Program	FY2018 Revenue	FY2018 Costs	FY2018 Contribution Margin
Affinity Programs	408,000	7,584	400,416
Annual Conference	273,000	451,978	(178,978)
Professional Development	1,012,225	811,151	201,074
Employment Web Advertising	320,000	55,454	264,546
Innovation Magazine	190,000	398,355	(208,355)
Student Membership & Sponsorship	45,000	120,622	(75,622)
Certified Professional Program	52,500	70,039	(17,539)
Organizational Quality Management	244,000	515,741	(271,741)
External Grants	850,000	893,831	(43,831)
Professional and Academic Examinations	464,014	429,263	34,751
Applications/Registration	1,426,650	949,907	476,743
Limited Licenses	18,000	122,050	(104,050)
Structural Qualification	54,514	19,581	34,933
Registration External Projects	109,281	115,795	(6,514)
	5,467,184	4,961,352	505,832

Note: Costs include allocated salaries and benefits

APEGBC and other Provincial Associations Annual Fee as at Feb 2017

APEGBC and other Provincial Associations Annual Fee without Certificate of Authorization as at Feb 2017



APEGBC Capital Acquisition Plan

	FY2018	FY2019	FY2020
Consultants for Capital Project Work	25,000	25,000	25,000
Client Infrastructure (>$1000)	2,000	2,000	2,000
iPhone refresh	1,200	12,000	1,200
Laptop refresh	9,500	5,700	1,900
- Disaster Recovery Server Nodes 1, 2, 3 - Production Server Node 3	35,000		-
- Production Server Node 1, 2, 4, 5, 6	-	43,750	-
- Production SAN	80,000	-	-
- Disaster Recovery SAN	-	-	80,000
Furniture, Fixtures and Equipment	20,000	20,000	20,000
Internal capitalized assets	123,926	127,644	131,473
	$ 296,626	**$ 236,094**	**$ 261,573**

	PRIORITY	INITIATIVE TITLE	YR1 BUDGET AMOUNT	YR2 BUDGET AMOUNT	YR3 BUDGET AMOUNT	ONE TIME FUNDING	FEB PLANNING SESSION VOTING RESULTS	BRIEF DESCRIPTION	STRATEGIC PLAN OUTCOME	CONSEQUENCE IF FOREGONE
1	Mandatory	Increased cost for national assessments (Engineers Canada and Geoscientists Canada)	18,773	41,086	64,500	N		National assessment fee increase due to membership growth	1a, 1b, 2b, 3d,4b, 4g,	Violation of agreement with EC/GC for payment of national fees and membership in EC/GC would cease.
2	Mandatory	Information systems security for PCI	10,000	10,000	10,000	N		PCI Required - needed to become PCI compliant	4a, 4b, 4g,	APEGBC would not be able to accept credit cards as a form of payment.
3	Mandatory	Grant to support gender diversity research	7,500	7,500	7,500	Y		Engendering Success Project through NSERC research chair	4.e	$7,500 for the next 3 years has been committed to the Engendering Success Research Project and will need to be honored.
4	Critical	Updating of existing guidelines	228,584	233,681	238,931	N	High	Maintain and keep current with regular updates of APEGBC's library of over 35 professional practice guidelines. (1.5 FTEs)	1.b., 2.a.,2.b. and 4.g.	Many of APEGBC professional practice guidelines have not been updated for several years which impacts their validity and the ability to identify the appropriate standard of care to be followed when carrying out specific professional activities. This puts APEGBC and public safety at risk.
5	Critical	Website maintenance support	42,349	43,563	44,814	N	High	Resourcing for website upkeep and maintenance (0.5 FTE)	1a, 1b, 2b, 3d,4b, 4g, 5a	Significant delays in posting website content will continue. Ability to keep content up to date and relevant is compromised.
6	Critical	Member and stakeholder consultations	86,000	136,000	56,000	N	High/Medium	Council approved consultations (currently includes member engagement strategy, corporate regulation, CPD, regulatory culture, EngL)	1a, 1, 1c, 3c, 3d, 4a, 4b, 4g, 4h	Funding needed to support in person meetings, webinars, travel and consultants as needed. Consultations would be minimized to articles, surveys and minimal face to face.
7	Critical	Council travel	20,000	20,000	20,000	N	High	Increased number of Council members reside outside of LM.	4c, 4g	More teleconferencing required.
8	Critical	Additional planning session	2,000	22,000	2,000	Y	High	Additional two day session in Y2 to develop the 2020 - 2023 strategic plan plus small inflationary increase in Y1 and Y3	1a, 1b,1c, 3c	Development of the next three year plan will be compromised.
9	Critical	CEO recruitment	100,000	3,850	5,268	Y	High/Low	Recruitment for new CEO.	4g	Significant vacancy in senior executive leadership in the organization.
10	Critical	Investigation and discipline case support	153,540	168,181	175,597	N	High	Additional staffing (1.6 FTEs) to support the increasing number of complaints and investigations.	2a, 4g	Time to complete Investigations has significantly increased due to insufficient staff resources to process. On average it is now taking 2-3 years to complete high risk complaints. This poses significant risk to the public and compromises APEGBC's ability to deliver on one of its legislated responsibilities.

	PRIORITY	INITIATIVE TITLE	YR1 BUDGET AMOUNT	YR2 BUDGET AMOUNT	YR3 BUDGET AMOUNT	ONE TIME FUNDING	FEB PLANNING SESSION VOTING RESULTS	BRIEF DESCRIPTION	STRATEGIC PLAN OUTCOME	CONSEQUENCE IF FOREGONE
11	Critical	OQM program growth	26,402	28,007	22,675	N	High	Phase 2 of OQM program with additional Lead Auditor (1 FTE) to support volume increase	1.b., 2.a.,2.b. and 4.g.	Without the 2nd auditor /program developer the program will not continue to grow at an annual rate of 30% from the current 463 organizations that are in various stages of achieving OQM certification. The Association will not be able to reach the projected market of having 750 organizations OQM certified, which is when OQM will become financially self-sustaining.
12	Critical	IT network support	9,000	13,000	13,000	N	High	PCI Best Practice (#2B) - Risk mitigation: auto detection of hacking	4a, 4b, 4g, 5a	Greater risk that we could be hacked and intrusion would go unnoticed.
13	Critical	FIPPA Audit	15,000			Y		An audit to measure compliance with BC's information and privacy laws and make recommendations to improve privacy and access practices, policies, and guidelines. Areas that will be assessed include management policies & procedures; collection, use, disclosure, and retention of information; protection and safeguard of information; and access processes.	4c	It is best practice to be in compliance with FIPPA requirements. First step is to learn of the deficiencies. The deficiencies or short comings to compliance could result in legal liability issues and end up costing the organization its reputation and financial penalties if not identified and addressed.
14	Sub-Critical	Promotional campaign - member & public - mid range	150,000	50,000	50,000	Y	Low	Public and member campaign to support promotion of the Professions and Organizational Brand strategy	1a, 1b, 3a, 3b, 3c, 3d, 4b, 4e	Promotion of the professions and renewal of organizational brand will be limited in scope, primarily targeting members only, and would be a missed opportunity for taking full strategic advantage of the brand renewal, through public engagement and saturation.
15	Sub-Critical	100th anniversary commemoration mid-range		60,000	25,000	Y	Low	Outreach/engagement targeting members, public - multi-year	1a, 1b, 3a, 3b, 3c, 3d, 4b, 4e	Impact of 100th anniversary commemoration will still be robust; however lower in profile and only for the duration of a year. (25k in 2021)
16	Sub-Critical	Labour market studies	10,000	10,000	10,000	N	Medium	Labour Market Studies	3.b.	Lack of knowledge on labour market trends and their impact on regulatory matters (eg volume of offshoring).
17	Sub-Critical	Diversity strategy development	3,500	3,500	3,500	N	Low	Support of activities related to aboriginal engagement in STEM	4.e.	Support of diversity initiatives and the new strategy development for indigenous outreach.
18	Sub-Critical	Professional practice seminars at reduced fee	25,000	25,000	25,000	N	Low	Reduce attendance fees for practice guidelines seminars and offer some free of charge.	2.a.	Practice guidelines sessions will continue to be offered on a cost recovery basis and due to the higher cost, attendance may be lower.

	PRIORITY	INITIATIVE TITLE	YR1 BUDGET AMOUNT	YR2 BUDGET AMOUNT	YR3 BUDGET AMOUNT	ONE TIME FUNDING	FEB PLANNING SESSION VOTING RESULTS	BRIEF DESCRIPTION	STRATEGIC PLAN OUTCOME	CONSEQUENCE IF FOREGONE
19	Sub-Critical	Remove 20% margin requirement for PD seminars	156,455	127,464	96,185	N	High/Low	Eliminate current targeted profit margin of 20% for professional development sessions to make more affordable.	2.a.	Continue to offer sessions with a targeted 20% profit margin.
20	Sub-Critical	Nomination & election task force	5,600	5,600	5,600	Y	Low	Nomination & Election Task Force meeting and travel costs	4.c.	No dedicated group of members to tackle nomination and election issues raised.
21	Sub-Critical	IT Security (best practices)	54,500	45,000	45,000	N	Low	PCI Best Practice - Risk mitigation: external/auto review of logs to detect hacking	4a, 4b, 4g	Greater risk that we could be hacked and intrusion would go unnoticed.

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Association of Professional Engineers & Geoscientists of British Columbia

September 30, 2015

Enterprise Risk Management Review

pwc

Contents

1. Project Overview and Approach

Project Overview

The Association of Professional Engineers and Geoscientists of British Columbia (”APEGBC” or the “Association”) is the regulatory and licensing body for engineers and geoscientists in the province of British Columbia. Through the authority of BC’s Engineers and Geoscientists Act, APEGBC protects the public interest by setting and upholding academic, experience and professional practice standards for the engineering and geoscience professions.

APEGBC and its members are facing new and unprecedented challenges in this era of global economies and global practice. The increased pace of technological change, rapid expansion of commerce in international and digital markets, trends towards deregulation and shifting demographics all present disruptions to the current model of professional regulation. Furthermore, APEGBC has grown as an organization, both in size and outlook. With this comes new and emerging risks and the need to better understand and actively manage those risks.

In response, APEGBC conducted a project in 2015 to better understand potential risks impacting its critical business and operational functions. The risks identified in this review related to all aspects of APEGBC – including member facing functions and corporate support functions. This review focused on those risks most relevant to the overall business, and therefore did not consider risks at a detailed process level.

An enterprise-wide risk assessment was conducted using the approach noted below to identify key risks to APEGBC– both internal and external – allowing APEGBC to use these results in prioritizing and guiding its activities and ensuring that key risks are being addressed.

Project Approach

Interview and Workshops

We engaged in interviews, workshops and discussions with both members of council and staff. These focused on capturing their views of the most significant risks in the context of APEGBC's core strategies. The interviews also captured views on the significance of each risk.

In addition to the one-on-one interviews, we conducted a workshop with ten senior staff members to discuss their views on identified risks. This workshop captured views on both the impact and likelihood of noted risks. These assessments were judgmental based on individual views and on the context provided by the project. At some future point, APEGBC may wish to develop some level of analytics to support these ratings. However, at this time, these qualitative ratings are considered suitable for the organization's needs.

Finally, we met with the Executive Committee to review the noted risks and capture their feedback and thoughts on the risks as presented.

Ideally, these ratings will help enhance awareness of the relevant risks to APEGBC's success.

Research

In addition to interviews and the workshop, we conducted background research using a variety of internal and external documents.

Documents developed by APEGBC included:

- Strategic Plan: 2014–2017
- Continuing Professional Development: Guideline
- Three Year Departmental Service Plan: July 1, 2014 - June 30, 2017
- Insights West: Professional Engineers and Geoscientists of BC: 2014 Public Opinion Survey

External research considered:

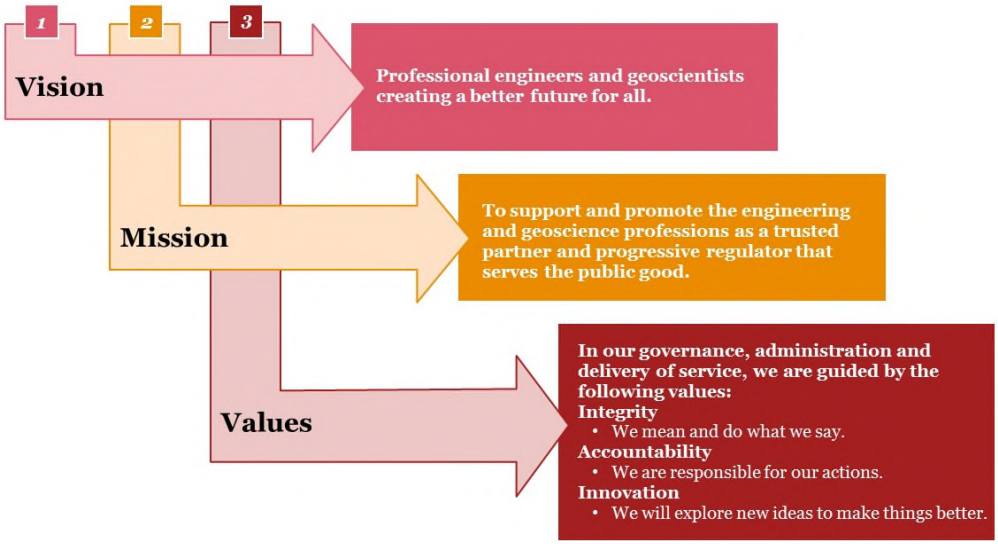
- BC's Engineers and Geoscientists Act
- BC Ministry of Advanced Education website
- Risk management documents relating to engineering and geoscientists developed in other provinces
- Financial information reported by other associations
- Newspaper articles and social media, including Facebook and Twitter

2. Considering Risk in the Context of APEGBC

Risk and Vision, Mission, and Values

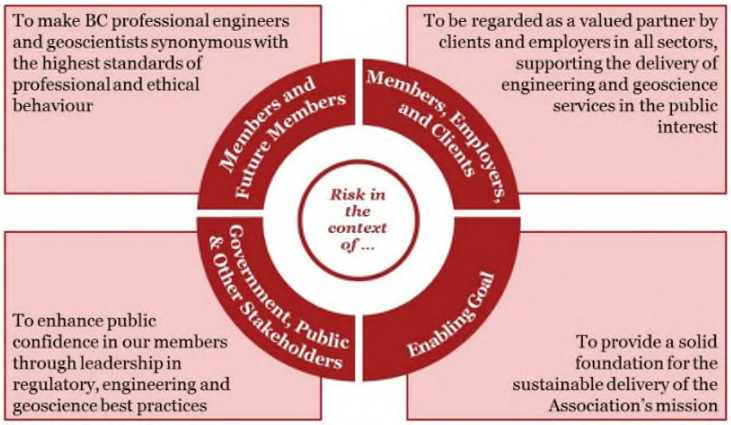
Risk is commonly viewed in the context of its ability to shape and impact an organization's vision, mission, and values. As such, the starting point for this review is APEGBC's own vision, mission, and values. Consideration given to each risk's ability to impact these high-level goals and values held by APEGBC.

Noted below is a summary of APEGBC's vision, mission, and values statement.



Risk and Strategy

Supporting the achievement of vision, mission, and values are strategies established to support those goals. Our analysis considered risk in the context of APEGBC by linking risk to those strategies and supporting objectives and performance measures.



APEGBC's Risk Management

Current State of Risk Management

APEGBC's risk management efforts are largely informal and spread across various departments. This approach to risk management is common for organizations of this size, where roles and responsibilities are often shared across functions.

While many of those interviewed did not find it challenging to talk about risk, it was evident that many also had a different perspective on risk, often driven by their respective professional training and focus. For instance, regulatory staff's' focus extends to low likelihood but higher impact risks, whereas other operations staff seem to focus on commonly occurring risk levels.

In part because of the nature of the organization's role and the nature of the profession, APEGBC generally has a risk averse culture as it relates to engineering and geoscience matters, but appears much more accepting of risks relating to effective and efficient operations.

Current Controls in Place to Manage Risks

As part of the project plan, we planned to review the adequacy of current controls in place for managing identified risks.

Typically controls are more suited to routine operations such as revenue collection, member applications, and practice review procedures. In our interviews with management personnel, we heard few concerns with the core processes and controls in place to ensure quality in executing those processes.

As is often the case, the current controls, or mitigation strategies, for the key risks noted in this report are not well developed. For those areas, we noted that there is a strong inherent reliance on the senior management team to respond to these risks as they begin to impact operations.

Given the noted organizational model, and the level of control in place in relation to the more significant risks, there is a greater level of reliance on management to be vigilant to a changing risk landscape.

3. Key Risks

Summary of Key Risks Noted

We noted eights specific risks that were of most concern to management.

- **Strategic Priorities -** relating to APEGBC's focus on its high-level goals
- **Governance** - relating to oversight of the Association
- **Market Relevance -** relating to the Association's importance amongst members, government, and the community at large
- **Public Infrastructure Failure** - relating to the Association's role in protecting the community at large
- **Continuing Member Education** - relating to expectaitons of continuous member improvement
- **Funding Model** - relating to the Association's resources and self sufficiency
- **Government Interactions** - relating to potential governmental influences
- **Organizational Capability and Capacity** - relating to the Association's internal resources

Each of these risks is reviewed in greater detail later in this section.

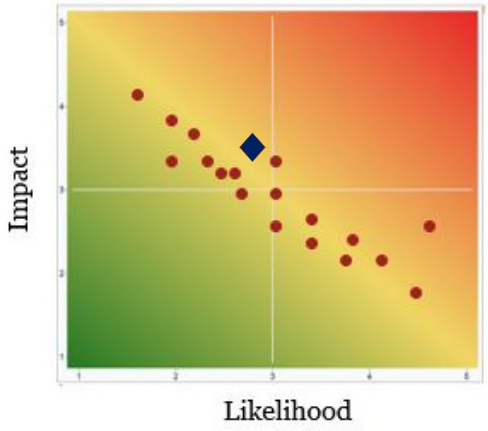
Depicting Risk in a Heat Map

While there are many risks to APEGBC, in this report we have focused on the key risks – those with the greatest level of concern noted by staff. This is considered using two criteria – impact and likelihood:

- Likelihood refers to the possibility of the risk occurring
- Impact refers to the effect of the risk on APEGBC's goals and strategies should the risk occur; and

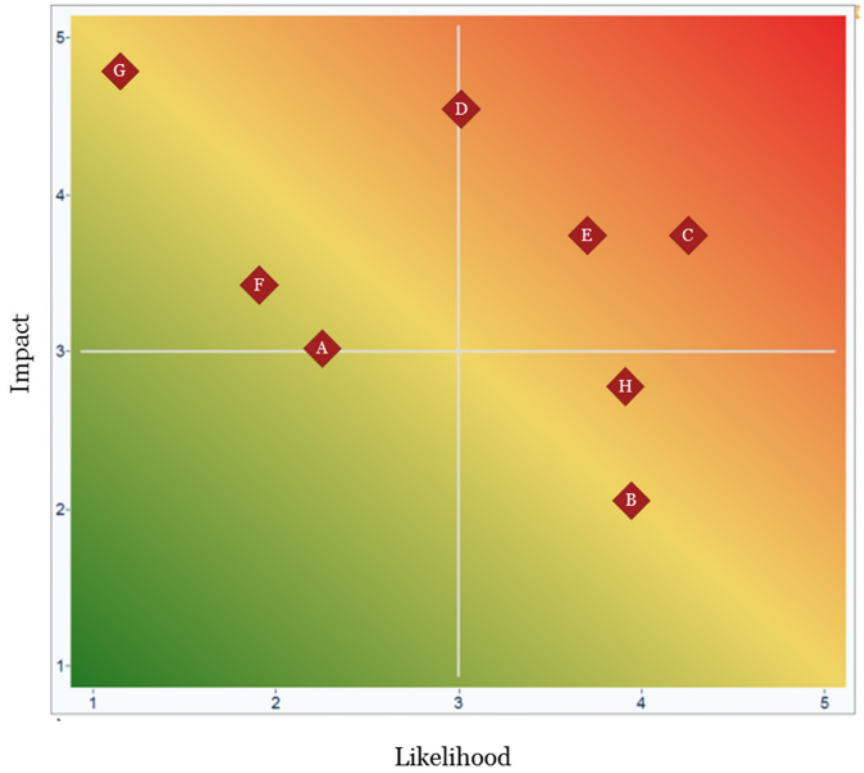
These risks have been plotted in a commonly used grid, referred to as a heat map. Within this heat map:

- The X axis depicts the likelihood of the risk occurring; and
- The Y axis depicts the possible impact of the risk.



Many risks occur within a distribution of impact and likelihood, as depicted on the heat map. We have chosen to depict the risk along that continuum at the point at which it may become disruptive to APEGBC (depicted as a diamond on the map). Risks assessed below that point may be seen as manageable within normal operations, while risks at or above that point would require concerted effort by management. This is illustrated as the point on the distribution line.

APEGBC's Risk Map



Legend

A. Strategic Priorities
B. Governance
C. Market Relevance
D. Public Infrastructure Failure
E. Continuing Member Education
F. Funding Model
G. Government Interactions
H. Organizational Capability and Capacity

Assessed Risk Details

In addition to the depiction of the above heat map, each risk is described in further detail. For each risk, we have:

- Plotted the overall impact and likelihood assessment on a heat map;
- Provided a key risk statement that provides a one-sentence description of the issue, including the potential impact on the overall strategic goals and directions;
- Provided considerations relevant to the assessment; and
- Noted potential impact(s) to APEGBC in the context of key strategic goals and/or related key performance indicators.

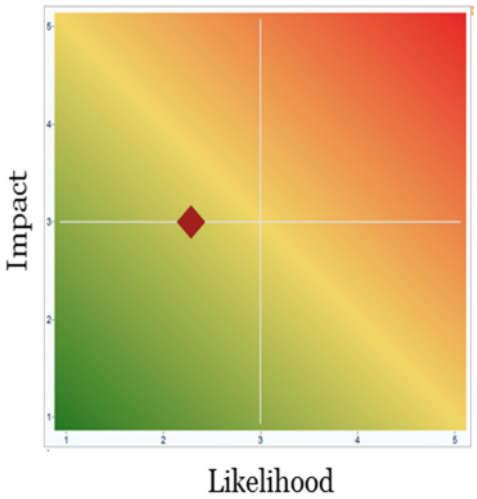
Rating criteria for impact and likelihood are set out in Appendix A.

A. *Strategic Priorities*

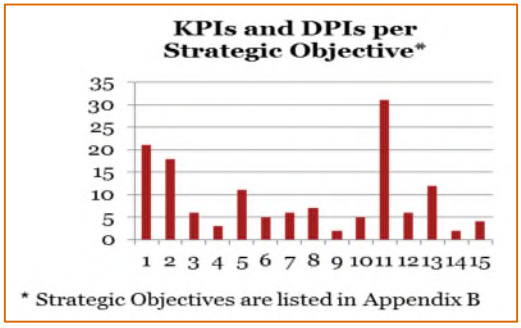
Key Risk Statement

APEGBC may not achieve its strategic goals where day-to-day efforts and performance indicators are directing staff in alternative directions.

Key Considerations



- APEGBC's *Strategic Plan: 2014–2017* has four core strategies and fifteen supporting objectives. Management has set out 17 key performance indicators (KPIs) relating to the *Strategic Plan* supported by a further 121 departmental performance indicators (DPIs). These KPIs and DPIs equate to two unique performance measures for each employee of APEGBC.
- We also noted that the relative focus on objectives may be out of balance as 50% of all KPIs are assigned to one of three objectives.



Potential Impact to APEGBC

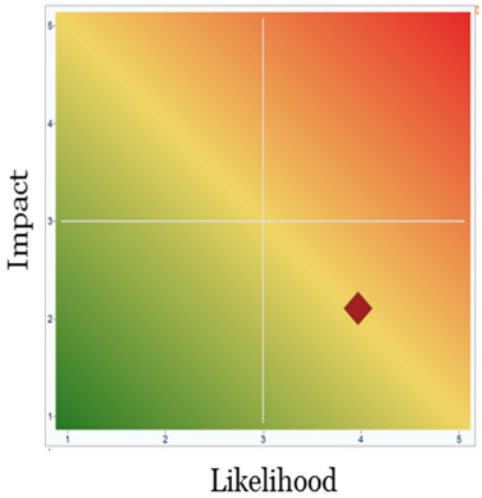
Based on the above considerations, the risk was assessed as moderately low in terms of likelihood but higher in impact. Should this risk occur, it may reduce APEGBC's ability to attain strategic goals for those objectives with the fewest number of KPIs and DPIs.

B. Governance

Key Risk Statement

The current governance structure and mandate may impede the Association's ability to effect longer-term change required to sustain the engineering and geoscience professions in a dynamically changing environment.

Key Considerations



- As required by APEGBC's Act and Bylaws, members annually elect a President, Vice President, and five Councilors. While candidates are normally identified by the Nominating Committee and subject to screening and assessments, nominations can be submitted with the support of only 25 members with no such criteria requirements. Such candidates, while potentially not meeting requirements for board candidates, will appear on the ballot along with candidates approved by the Nominating committee.
- Typically, organizations find that it takes two to three years for a president to develop a longer-term vision and strategy for an organization, and the annual term may challenge the Association in carrying out longer initiatives that span several President terms. However, the Council does review with management and approve the three-year strategic plan.
- The governance requirement for two-thirds approval on any Bylaw changes is higher than many other organizations and may also impede the Association's ability to effect change.
- In addition to the performance goals and measures established by management, the Board also creates new initiatives for senior management to address.

Potential Impacts to APEGBC

This risk was viewed to be less significant to APEGBC's overall success. Should it occur, it may reduce APEGBC's ability to effect longer-term change required to support and promote the engineering and geoscience professions with members, employers, and clients.

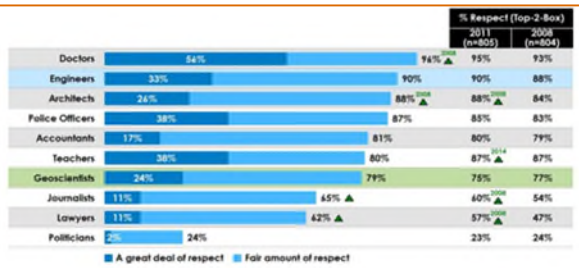
C. *Market Relevance*

Key Risk Statement

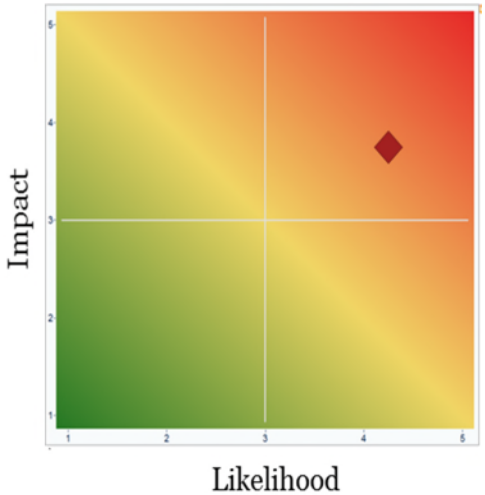
Lower market relevance may impede APEGBC's ability to transform from a reactive, regulatory body that professionals are obliged to join to a pro-active, forward thinking organization protects the public and delivers value for its members, industry, and government.

Key Considerations

- The engineering profession overall has a strong trust relationship with the community at large.



Source: Insights West: Professional Engineers and Geoscientists of BC: 2014 Public Opinion Survey



- However, APEGBC as an organization appears to have a lower level of market relevance and recognition than do other professional associations. There is generally a strong correlation between fees charged to a member and brand – the greater the relevance the greater fees per member.
- In February 2015, the Karacters Design Group held a Brand Conviction Workshop with a team made up of representatives from membership, branches, Council and staff. This is aimed in part at assessing overall relevance and recognition with the market.

Potential Impacts to APEGBC

This risk was seen to be amongst the most significant in relation to the combined impact and likelihood. Should this risk occur, it may reduce APEGBC's ability to increase awareness of the engineering and geoscience professions and sustain the Association's membership growth. Equally importantly, it may also impede the organization's ability to transform from a perception of being a requisite for engineers and geoscientists enrollment to one that protects the public and provides value, insight, and direction to its membership. This risk impacts the ability to carry out APEGBC's vision: Professional engineers and geoscientists creating a better future for all.

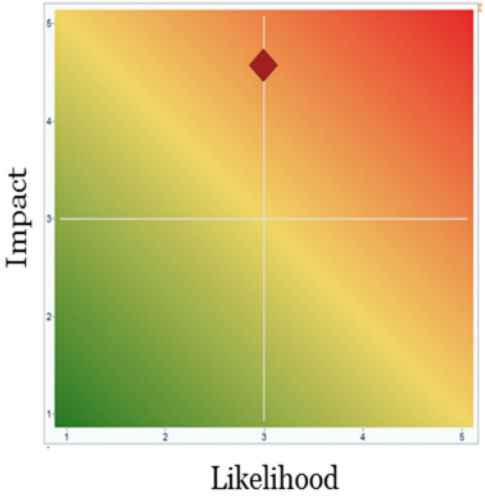
D. Public Infrastructure Failure

Key Risk Statement

A larger-scale infrastructure failure(s) increases the risk that APEGBC loses its mandate of regulating engineering and geoscience practices.

Key Considerations

- Infrastructure failures create impressions on the public regarding safety.
- Instances such as the Mount Polley tailings pond breach, Crystal Mountain chair lift failure, Save on Foods roof collapse, and Elliott Lake Shopping mall collapse can have, or have had, lasting effects for decades.
- Another one or two large scale events could cause the Provincial Government to revisit the *Engineers and Geoscientists Act*, the outcome of which could either significantly expand or limit APEGBC's role going forward.
- There is also concern that aging infrastructures within the province are increasing this risk of failure.
- New and emerging approaches are also increasing the need to keep up with changing requirements.



Potential Impacts to APEGBC

This risk of public infrastructure failure was viewed as having the second highest potential impact. Amongst the potential impacts are reduced confidence of the provincial government and the general public and heightened the call for strategies to address engineering and geoscience issues.

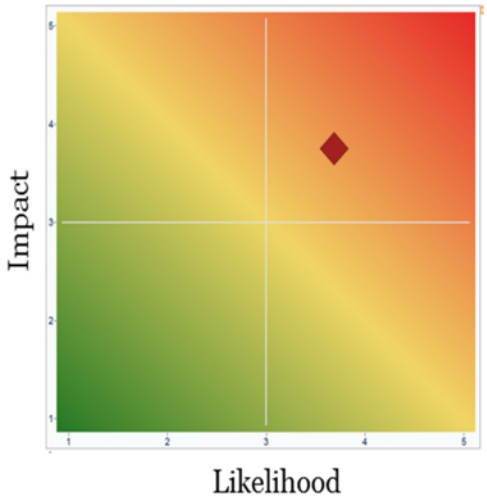
E. Continuing Member Education

Key Risk Statement

By not requiring mandatory continuing member education, APEGBC increases the risk that the organization is unable to maintain the highest standards of professional and ethical behaviour.

Key Considerations

- Throughout the interviews we heard numerous mentions of the risks relating to mandatory member continuing education.
- APEGBC is one of very few professional associations in the Province and in Canada that does not require continuing education of its members.
- Many members are opposed to this requirement and are strongly pushing back on APEGBC.
- Some members have gone as far as suggesting they would sever their ties with APEGBC if continuing education becomes mandatory.



Potential Impacts to APEGBC

This remains a topic of great attention, and was rated amongst the more significant risks in terms of combined impact and likelihood. Should this risk manifest, it may reduce APEGBC's ability to gain membership approval which advances the work of the organization and the profession.

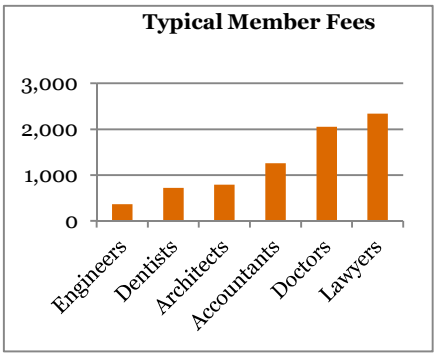
F. Funding Model

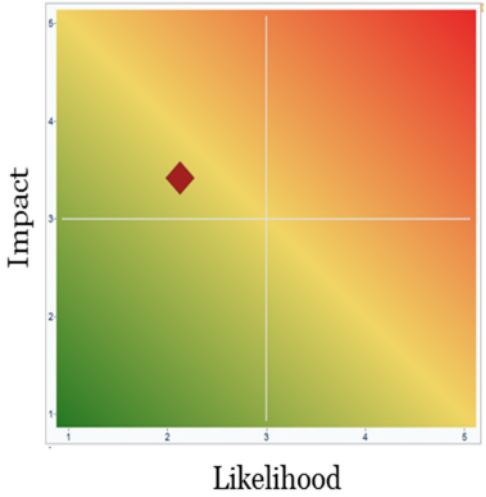
Key Risk Statement

The potential loss of member revenues increases the risk that APEGBC can't continue to provide a solid foundation for the sustainable delivery of its mission.

Key Considerations

- Members have shown adverse reactions to potential fee increases.
- Engineers and geoscientists are well below other professions in fees charged per member.





- The aging demographics of your members is likely to result in lost revenue as those members retire, unless new member enrollment increases beyond current levels.
- APEGBC is amongst the highest in terms of reliance on member fees versus other funding sources.
- Several project participants suggested that current revenue could decline by 25% - 30% before the organization would need to significantly amend its strategic priorities.

Potential Impact to APEGBC

The risk relating to funding, while moderately impactful to the organization, was viewed as having a lower overall likelihood, and was therefore of less immediate importance. Should this risk occur, it may reduce APEGBC's ability to demonstrate financial prudency on a consistent basis.

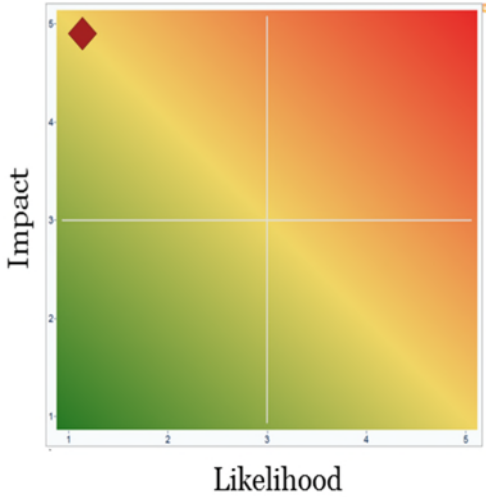
G. Government Interactions

Key Risk Statement

Potential decisions by the provincial government could significantly disrupt the organization's role of being a valued partner and progressive regulator that serves the public interest.

Key Considerations

- The provincial government provides APEGBC with the overall mandate to operate under the *Engineers and Geoscientists Act*.
- Political decisions impacting the profession can be driven as much by public image and special interest group concerns as by business decision-making considerations, and as such can be more challenging to predict and influence.
- Other government entities may also be referring to APEGBC's standards, bylaws, practice guides, etc., thereby creating an inherent level of reliance on and risk to the Association.



Potential Impacts to APEGBC

The risk relating to government interaction is one of those black swan type risks – very low likelihood but highly impactful to the organization. There was also two views on this, whereby those impacts relating to direct government intervention were considered were much lower, whereas likelihood of risks occurring relating to inter-government dependency on APEGBC being more likely. Should this risk occur, APEGBC may have a reduced ability to sustain delivery of the Association's mission.

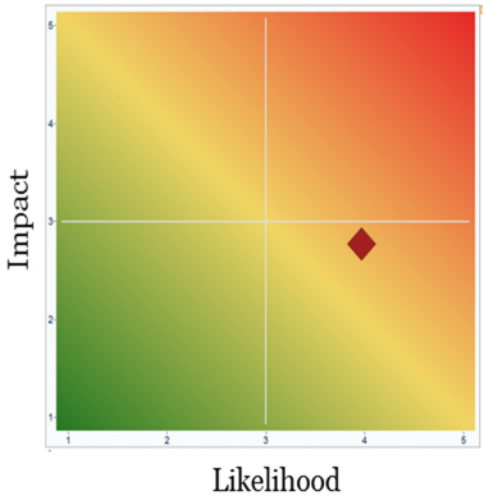
H. Organizational Capability and Capacity

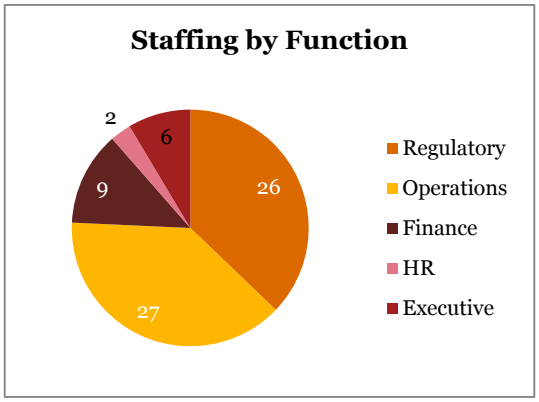
Key Risk Statement

The limited number of resources increases the risk that APEGBC can't provide a solid foundation for the sustainable delivery of the Association's mission.

Key Considerations

- APEGBC has set ambitious organization goals with 15 supporting objectives. With a staff compliment of approximately 70, these priorities are spread through a relatively small number of people, placing greater reliance on each individual.





- Several members of the senior leadership team are approaching retirement age and there are few senior positions with a natural successor. Financial constraints do not allow for significant changes in staff level to allow for such succession.
- Many organizations are experiencing challenges with the shift towards the younger mobile workforce. It is unclear how APEGBC intends to make that transition.
- Much of APEGBC's delivery model is dependent on volunteers, who outnumber staff by a margin of 15:1, who to a large extent are outside of management's direct control and oversight.

Potential Impacts to APEGBC

This risk was viewed as being amongst the higher likelihood to occur, although impact was somewhat tempered. This may be somewhat related to the speed at which this risk will likely manifest. Should it occur, this risk may impede APEGBC's ability to sustain delivery of the Association's mission.

Next Steps

This report was prepared to assist APEGBC management in identifying its key risks to the overall business. It should not be viewed as a complete effort, but part of the development in risk management practices expected of organizations today. With this in mind, we recommend that management:

- Review key findings with the Council and reinforce their governance expectations relating to oversight of risk management
- Develop plans for dealing with the more significant risks noted in this report, including the assignment of ownership for tracking and reporting on assigned risks.
- Update the risk findings, as necessary. Certain risks may require more frequent updating given the cadence with which they change. However, management should establish a schedule for updating all risks, and identifying new ones based on a set schedule.
- Consider how to share this information across the organization such that those not directly involved in this effort benefit from management's efforts.

Appendices

A. Rating Criteria

Likelihood

	Rating				
	1. Remote	2. Unlikely	3. Possible	4. Likely	5. Almost Certain
Guidance	Risk has not occurred, and would not expect this event to happen more often than once every 25 years.	Risk has not occurred, but could happen once every 15 years or so.	This risk may have occurred at APEGBC in recent years, has occurred elsewhere in distant past, or could happen in the future within 5 years.	This has occurred a few times at APEGBC, or perhaps elsewhere, in the recent past, or could happen in the future within 1 – 5 years.	Event has occurred several times or more, here or elsewhere, in the recent past, or we expect this to happen once a year or more frequently in the future.

Impact

Risk to:	Rating				
	1. Insignificant	2. Minor	3. Moderate	4. Major	5. Critical
Business Effectiveness	Insignificant impact on business operations. Outcomes remain within risk tolerances.	Minor impact on business operations. Outcomes remain within risk tolerances.	Moderate impact on business operations. Outcomes may not remain within risk tolerances.	Major impact on business operations. Outcomes are outside risk tolerances.	Catastrophic impact on business operations. Outcomes are highly unacceptable.
Engineering Quality	Insignificant quality concerns of members and future members. Outcomes remain within risk tolerances.	Minor quality concerns of members and future members. Outcomes remain within risk tolerances.	Significant quality concerns of members and future members. Outcomes may not remain within risk tolerances.	Major quality concerns of members and future members. Outcomes are outside risk tolerances.	Widespread major quality concerns of members and future members. Outcomes are highly unacceptable.
Community and Public	Insignificant impact on the public interest and safety. Outcomes remain within risk tolerances.	Minor impact on the public interest and safety. Outcomes remain within risk tolerances.	Moderate impact on the public interest and safety. Outcomes may not remain within risk tolerances.	Major impact on the public interest and safety. Outcomes are outside risk tolerances.	Catastrophic impact on public interest and safety. Outcomes are highly unacceptable.
Financial	Insignificant negative impact on net income of < $25,000	Minor negative impact on net income of between $25,000 and $100,000	Moderate negative impact on net income of between $100,000 and $500,000	Major negative impact on net income of between $500,000 and $2,500,000	Catastrophic negative impact on net income of > $2,500,000

B. Supporting Information and Analytics

Fees Earned by Professional Associations

	Engineering Associations				Architectural Institute of BC (1)	College of Dental Surgeons of BC	CPA-BC	Law Society of BC	Physicians and Surgeons of BC
	BC	Manitoba	Ontario	Newfoundland					
Members	28,637	7,251	3,237	4,458	2,754	9,771	28,638	11,114	12,784
Total Revenue ($1,000)	$9,581	$2,841	$1,129	$1,677	$3,873	$7,014	$36,074	$26,036	$26,217
Revenue / Member	$335	391	$349	$376	$793	$718	$1,260	$2,343	$2,051
Percentage of revenue from fees	83%	61%	86%	57%	68%	83%	31%	69%	71%

Aligning Objectives to Strategic Goals

Members and Future Members - to make BC professional engineers and geoscientists synonymous with the highest standards of professional and ethical behaviour.

1. Support potential members in acquiring the competencies required for professional registration.
2. Improve resources and education as well as awareness and access to resources that help members practice to high professional and ethical standards.
3. Develop and implement a brand strategy for the BC engineering and geoscience professions.
4. Identify engineering and geoscience practice issues and develop strategies to address them.

Members' Employers and Clients - to be regarded as a valued partner by clients and employers in all sectors, supporting the delivery of engineering and geoscience services in the public interest.

5. Involve employers in improving the effectiveness of and participation in APEGBC programs.
6. Demonstrate how APEGBC and its members provide technical, professional and ethical value to employers and clients.
7. Develop strategies for protection from noncompliant members and unregistered practitioners.

Government, Public & Other Stakeholders - to enhance public confidence in our members through leadership in regulatory, engineering and geoscience best practices.

8. Provide informed perspectives on engineering and geoscience practice issues affecting public safety.
9. Promote reliance on professionals in government legislation.
10. Establish a common level of expectation among stakeholders regarding the practice of the professions in the public's interest.

Enabling Goal - to provide a solid foundation for the sustainable delivery of the Association's mission.

11. Continue to implement best practices in governance.
12. Foster diversity and inclusiveness.
13. Provide effective support and recognition for volunteers and staff.
14. Develop and implement an organizational brand strategy for APEGBC.
15. Create greater accountability through improvements to quality and timeliness in processing requests.

APEGBC - DRAFT Risk Assessment Summary
Fiscal Year 2016/17

Risks	Risk Impact	Risk Likelihood	Accountable Person/Department	Current Risk Rating
A. Strategic Priorities				
APEGBC may not achieve its strategic goals where day-to-day efforts and performance indicators are directing staff in alternative directions.	Moderate	between Unlikely and Possible	Council/CEO	Low
B. Governance				
The current governance structure and mandate may impede the Association's ability to effect longer term change required to sustain the engineering and geoscience professions in a dynamically changing environment.	Minor	Likely	Governance Committee/CEO/CRO/COO/Director Finance	Moderate
C. Market Relevance				
Lower market relevance may impede APEGBC's ability to transform from a reactive, regulatory body that professionals are obliged to join to a pro-active, forward thinking organization protects the public and delivers value for its members, industry, and government.	between Moderate and Major	between Likely and Almost Certain	CEO/COO/Director, Communications & Stakeholder Engagement	Moderate
D. Public Infrastructure Failure				
A larger-scale infrastructure failure(s) increases the risk that APEGBC loses its mandate of regulating engineering and geoscience practices.	between Major and Critical	Possible	CRO/Director, Professional Practice, Standards & Development/ Director, Legislation, Compliance & Ethics	Moderate
E. Continuing Member Education				
By not requiring mandatory continuing member education, APEGBC increases the risk that the organization is unable to maintain the highest standards of professional and ethical behavior.	between Moderate and Major	between Possible and Likely	Council, CPD Committee, Director, Member Services	Low - Moderate
F. Funding Model				
The potential loss of member revenues increases the risk that APEGBC can't continue to provide a solid foundation for the sustainable delivery of its mission.	between Moderate and Major	between Unlikely and Possible	Director, Finance & Administration/Director, Registration	Low
G. Government Interactions				
Potential decisions by the provincial government could significantly disrupt the organization's role of being a valued partner and progressive regulator that serves the public interest.	Close to Critical	Remote	CEO/CRO/COO	High
H. Organizational Capability and Capacity				
The limited number of resources increases the risk that APEGBC can't provide a solid foundation for the sustainable delivery of the Association's mission.	between Minor and Moderate	Likely	CEO/COO/CRO/Director, Finance & Administration/Manager, HR	Low

APEGBC - DRAFT Risk Management Plan Summary
Fiscal Year 2016/17

Risks	Key Considerations(As per PWC Report)	Potential Impact to APEGBC	Controls to Mitigate Risks	Action Taken/ To Be Taken
A. Strategic Priorities				
APEGBC may not achieve its strategic goals where day-to-day efforts and performance indicators are directing staff in alternative directions.	• APEGBC's Strategic Plan: 2014–2017 has four core strategies and fifteen supporting objectives. Management has set out 17 key performance indicators (KPIs) relating to the Strategic Plan supported by a further 121 departmental performance indicators (DPIs). These KPIs and DPIs equate to two unique performance measures for each employee of APEGBC. •the relative focus on objectives may be out of balance as 50% of all KPIs are assigned to one of three objectives.	Based on the above considerations, the risk was assessed as moderately low in terms of likelihood but higher in impact. Should this risk occur, it may reduce APEGBC's ability to attain strategic goals for those objectives with the fewest number of KPIs and DPIs.	• During the upcoming new three year strategic planning session strive to reduce the number of objectives/outcomes to ensure that APEGBC's ability to attain strategic goals is strengthened without outstretching current resources. •Relook at the objectives once new strategic plan is complete to see if there is a balance of where the KPI's are assigned to; consider if there is an objective that should be focused on and if so should the other objectives be removed for this three year plan and used in the next three year strategic plan. • During three year budget process strive to reduce the number of new initiatives and have a more focused and central direction; more concerted effort to focus resources to strategic priorities without compromising essential operations.	The new three year strategic plan (FY 2018-FY2020) is more streamlined and does not have objectives and has fewer outcomes compared to the last three year strategic plan. In addition, during the three year budget process, initiatives are being reviewed so that there are few number of initiatives and have more concerted efforts to focus reosources to strategic priorities without compromising essential operations. It is planned that there will be a reduction in the number of KPI's assigned to the strategic plan. Effective resource planning will need to take place to assure APEGBC can conduct its legislated responsibilities while fulfilling the new initiatives associated with the strategic plan.
B. Governance				
The current governance structure and mandate may impede the Association's ability to effect longer term change required to sustain the engineering and geoscience professions in a dynamically changing environment.	• As required by APEGBC's Act and Bylaws, members annually elect a President, Vice President, and five Councillors. While candidates are normally identified by the Nominating Committee and subject to screening and assessments, nominations can be submitted with the support of only 25 members with no such criteria requirements. Such candidates, while potentially not meeting requirements for board candidates, will appear on the ballot along with candidates approved by the Nominating committee. • Typically, organizations find that it takes two to three years for a president to develop a longer-term vision and strategy for an organization, and the annual term may challenge the Association in carrying out longer initiatives that span several resident terms. However, the Council does review with management and approve the three-year strategic plan. • The governance requirement for two-thirds approval on any Bylaw changes is higher than many other organizations and may also impede the Association's ability to effect change. • In addition to the performance goals and measures established by management, the Board also creates new initiatives for senior management to address.	This risk was viewed to be less significant to APEGBC's overall success. Should it occur, it may reduce APEGBC's ability to effect longer-term change required to support and promote the engineering and geoscience professions with members, employers, and clients.	• Review of the member nomination process - submission requirement with support of 25 members needs to be reviewed as this rule is out of date and does not ensure quality candidates to be potential eligible Council members. •Consider and review the role and responsibilities of the Past President, President, Vice-President, and Council members to ensure more continuity and effective functionality of each role to ensure that longer term change initiatives are carried through more smoothly and workload balance of positions is achieved. • Review member ratification process - Council has decided to pursue with government a change to the bylaw ratification process, whereby, 2/3 majority of Council will be required to pass public interest bylaws instead of 2/3 majority of membership requirement. • Develop a process/guideline for review and prioritization of initiatives brought forth by Council members outside of the normal process. • Committee Structure Overhaul - requires Governance committee review and Council approval.	Over a period of eight months, APEGBC consulted with key stakeholders on proposed changes to the Act. The changes are intended to provide for: • Housekeeping updates to accurately reflect regulatory processes • Tools to address public safety challenges • The ability for qualified practitioners to fully participate within their scope of practice • Accountability in governance • More effective handling of non-compliance with CPD bylaw. At its June 19, 2015 meeting, APEGBC's Council reviewed stakeholder consultation results and recommendations based on that feedback, as well as research and legal analysis. Council approved a motion to proceed with a request to government for changes to the Act. In December 2015, Council made a further request to amend the ratification process for bylaws to align with the process used by most other BC regulators. A member engagement plan has been approved and is underway. A nomination and election task force has been approved by Council to review the election and nomination process.

APEGBC - DRAFT Risk Management Plan Summary
Fiscal Year 2016/17

Risks	Key Considerations(As per PWC Report)	Potential Impact to APEGBC	Controls to Mitigate Risks	Action Taken/ To Be Taken
C. Market Relevance				
Lower market relevance may impede APEGBC's ability to transform from a reactive, regulatory body that professionals are obliged to join to a pro-active, forward thinking organization protects the public and delivers value for its members, industry, and government.	• The engineering profession overall has a strong trust relationship with the community at large. • However, APEGBC as an organization appears to have a lower level of market relevance and recognition than do other professional associations. There is generally a strong correlation between fees charged to a member and brand – the greater the relevance the greater fees per member. • In February 2015, the Karacters Design Group held a Brand Conviction Workshop with a team made up of representatives from membership, branches, Council and staff. This is aimed in part at assessing overall relevance and recognition with the market.	This risk was seen to be amongst the most significant in relation to the combined impact and likelihood. Should this risk occur, it may reduce APEGBC's ability to increase awareness of the engineering and geoscience professions and sustain the Association's membership growth. Equally importantly, it may also impede the organization's ability to transform from a perception of being a requisite for engineers and geoscientists enrollment to one that protects the public and provides value, insight, and direction to its membership. This risk impacts the ability to carry out APEGBC's vision: Professional engineers and geoscientists creating a better future for all.	• Advancing current Strategic Plan that's focus is to showcase the association's relevance and raise the profile through more public engagement that demonstrates value to members and the public by continuing to build and implement a strategy on how to represent and communicate to stakeholders what APEGBC represents, does, and defined as that adds value. Karacters Design Group is continuing work on this project. •Shifting the public/member's view of APEGBC to be regulatory by increasing the pool of influences (more branch visits), change of tone of communcation to members/public, and change focus to being and effective regulator • Clearly define who and what APEGBC is and does and educate the stakeholders. • Consider the life cycle of a member and how to add value to the member's professional practice through various stages of membership (applicant to practicing to discipline to life membership)	In FY2015, the Karacters Design Group held a Brand Conviction Workshop with a team made up of representatives from membership, branches, Council and staff. The agency reported on this workshop to Council, and sought Council responses on the findings as well as seeking further input. The outcome for this stage will be a brand blueprint document that will clearly articulate the components, attributes and guiding principles of APEGBC's brand, mission and vision. Council approved the branding strategy in June 2016 that will address some of the risk elements.
D. Public Infrastructure Failure				
A larger-scale infrastructure failure(s) increases the risk that APEGBC loses its mandate of regulating engineering and geoscience practices.	• Infrastructure failures create impressions on the public regarding safety. Instances such as the Mount Polley tailings pond breach, Crystal Mountain chair lift failure, Save on Foods roof collapse, and Elliott Lake Shopping mall collapse can have, or have had, lasting effects for decades. • Another one or two large scale events could cause the Provincial Government to revisit the Engineers and Geoscientists Act, the outcome of which could either significantly expand or limit APEGBC's role going forward. • There is also concern that aging infrastructures within the province are increasing this risk of failure. • New and emerging approaches are also increasing the need to keep up with changing requirements.	This risk of public infrastructure failure was viewed as having the second highest potential impact. Amongst the potential impacts are reduced confidence of the provincial government and the general public and heightened the call for strategies to address engineering and geoscience issues.	•Prioritize by importance current practice guidelines that need to be updated and assess what resources are needed to ensure that guidelines are updated on a timely basis. Once updated, ensure that professional development courses are provided to train members and communication of guidelines is widespread to stakeholders. • Consider and review timing of pursing the amendments required to the Act that is needed to better regulate larger-scale infrastructure industry. Consider partnering with more rigor and intensity with AIBC, SEABC, ACECBC or other related associations to proactively seek out mitigation recommendations to prevent such catastrophes to occur. • Consider developing general parameters or enhancing current code of ethics for new and emerging disciplines to address regulation in these areas that transcends fast changing requirements. • Consideration of corporate regulation of companies. • Consideration of increase in number of professional practice reviews held.	APEGBC has begun examining this issue to determine whether the association should pursue regulatory authority for corporate practice in order to enhance public protection. Council has established an Advisory Task Force on Corporate Practice that will guide the process of evaluation and member and stakeholder consultation. The task force comprises of APEGBC members, licensees and industry representatives, including government, manufacturing, construction, the Association of Consulting Engineering Companies - BC (ACEC-BC), and others. After considering all input, the task force will deliver a final recommendation to Council in spring 2017.

APEGBC - DRAFT Risk Management Plan Summary
Fiscal Year 2016/17

Risks	Key Considerations(As per PWC Report)	Potential Impact to APEGBC	Controls to Mitigate Risks	Action Taken/ To Be Taken
E. Continuing Member Education				
By not requiring mandatory continuing member education, APEGBC increases the risk that the organization is unable to maintain the highest standards of professional and ethical behavior.	• Throughout the interviews we heard numerous mentions of the risks relating to mandatory member continuing education. • APEGBC is one of very few professional associations in the Province and in Canada that does not require continuing education of its members. • Many members are opposed to this requirement and are strongly pushing back on APEGBC. • Some members have gone as far as suggesting they would sever their ties with APEGBC if continuing education becomes mandatory.	This remains a topic of great attention, and was rated amongst the more significant risks in terms of combined impact and likelihood. Should this risk manifest, it may reduce APEGBC's ability to gain membership approval which advances the work of the organization and the profession.	• Council decided to pursue a change to the bylaw ratification process with the government to allow for Council to have the authority to make CPD mandatory for members. • Council has directed PD Committee to review options of how to implement and revamp current program.	An amendment to the Act has been requested to enable Council to pass practice related bylaws without the requirement for member ratification. Council through the CPD Committee is reviewing options for a revised program. The Council Planning session will include the topic of CPD to generate more ideas and discussion around recommendations on this topic/issue. Activities continue to assure government of APEGBC's commitment to its regulatory role.
F. Funding Model				
The potential loss of member revenues increases the risk that APEGBC can't continue to provide a solid foundation for the sustainable delivery of its mission.	• Members have shown adverse reactions to potential fee increases. • Engineers and geoscientists are well below other professions in fees charged per member. • The aging demographics of your members is likely to result in lost revenue as those members retire, unless new member enrollment increases beyond current levels. • APEGBC is amongst the highest in terms of reliance on member fees versus other funding sources. • Several project participants suggested that current revenue could decline by 25% - 30% before the organization would need to significantly amend its strategic priorities.	The risk relating to funding, while moderately impactful to the organization, was viewed as having a lower overall likelihood, and was therefore of less immediate importance. Should this risk occur, it may reduce APEGBC's ability to demonstrate financial prudency on a consistent basis.	• Analyze historic membership renewal statistics more rigorously and identify trends that will enhance predictability of future membership count. Demographics, economic factors, current events, membership reaction to APEGBC news considered in trending analysis. • Review on an annual basis after the membership renewal cycle statistics of number of new members, newly retired members, reduced membership fee members, reinstatement members and removed members. Year after year trending on figures will provide insight on membership levels and where it may head in the future. • A review of the reserves funds, consideration of longer term project funding and taking into account scenarios of membership count, needs to be reviewed during the new three year budget cycle to determine the cash needed which will in turn determine membership fees required to fund such needs. • Council has the right to set fees - reassess the efficiencies and increase fees to sustain operations	Starting in Jan 2016, the Finance team has started building a membership fee collection tracking tool to monitor receivables and cash flows. From an analytical perspective, it is also used to gather statistics such as collection ratio and other financial data. The first protocol has been implemented for the FY2016 billing process, which collected valuable payment data linking to member demographics. In the FY2017, the goal is to continue using this tool to facilitate collection and, more importantly, to build expansive business data to further analyze and understand member trends from a different perspective.
G. Government Interactions				
Potential decisions by the provincial government could significantly disrupt the organization's role of being a valued partner and progressive regulator that serves the public interest.	• The provincial government provides APEGBC with the overall mandate to operate under the Engineers and Geoscientists Act. • Political decisions impacting the profession can be driven as much by public image and special interest group concerns as by business decision-making considerations, and as such can be more challenging to predict and influence. • Other government entities may also be referring to APEGBC's standards, bylaws, practice guides, etc., thereby creating an inherent level of reliance on and risk to the Association.	The risk relating to government interaction is one of those black swan type risks – very low likelihood but highly impactful to the organization. There was also two views on this, whereby those impacts relating to direct government intervention were considered were much lower, whereas likelihood of risks occurring relating to inter-government dependency on APEGBC being more likely. Should this risk occur, APEGBC may have a reduced ability to sustain delivery of the Association's mission.	• Continue to maintain good relationship with government and to gain understanding of what government's needs are in order to find commonality and to align common interests to achieve common goal. • Educate and build good relationships with stakeholders whose concerns are valid and remediable. • Review reliance of other government entities on APEGBC's standards, bylaws, practice guidelines etc. and determine the risks associated with this, if resources are sufficient to maintain this demand, and whether APEGBC is the best entity to carry out such work.	Continued events such as the Caucus receptions where APEGBC Council and senior staff members meet with the BC Liberal MLA's and the NDP members to provide an informal forum to share ways and disucssion on how APEGBC can work with the government to protect the BC public. Continued meetings between the President, CEO and Minister of Advanced Education to discuss common interests has strengthened the relationship.

APEGBC - DRAFT Risk Management Plan Summary
Fiscal Year 2016/17

Risks	Key Considerations(As per PWC Report)	Potential Impact to APEGBC	Controls to Mitigate Risks	Action Taken/ To Be Taken
H. Organizational Capability and Capacity				
The limited number of resources increases the risk that APEGBC can't provide a solid foundation for the sustainable delivery of the Association's mission.	• APEGBC has set ambitious organization goals with 15 supporting objectives. With a staff compliment of approximately 70, these priorities are spread through a relatively small number of people, placing greater reliance on each individual. • Several members of the senior leadership team are approaching retirement age and there are few senior positions with a natural successor. Financial constraints do not allow for significant changes in staff level to allow for such succession. • Many organizations are experiencing challenges with the shift towards the younger mobile workforce. It is unclear how APEGBC intends to make that transition. • Much of APEGBC's delivery model is dependent on volunteers, who outnumber staff by a margin of 15:1, who to a large extent are outside of management's direct control and oversight.	This risk was viewed as being amongst the higher likelihood to occur, although impact was somewhat tempered. This may be somewhat related to the speed at which this risk will likely manifest. Should it occur, this risk may impede APEGBC's ability to sustain delivery of the Association's mission.	• Consideration for new three year Strategic plan to reduce the number of objectives or outcomes in order to match the resources available. • Development of succession plan and knowledge transfer for senior leadership team members and identification of key positions. Plan on how to deal with scenario of losing such key people or plan on how to retain such employees. • Education of leaders in the organization to understand the Millennial workforce and what motivates, and retains generation needs to be carried out. • Volunteer engagement and satisfaction survey to determine the pulse of volunteers and to determine recommendations for improvements.	The 2017-2020 Strategic Plan has been reduced in number of outcomes in an effort to match the resources available and a budget will be presented in Spring 2017 that identifies the resources needed to effectively carry out new initiatives in addition to day to day operations. People leaders have attended a workshop on Millenial workforce in an effort to understand them better to aid in retention of this generational workforce. In December 2016, an organizational self-assessment of our company culture was completed to better understand our core values and capacities. Results from that study will aid in enhancing retention and alignment of management and support staff.

Date: April 28, 2017

Report to: **Council for Decision**

From: Advisory Task Force on Corporate Practice

Authors: Peter Mitchell, P.Eng., FEC
Director, Professional Standards and Development

Megan Archibald
Director, Communications and Stakeholder Engagement

Subject: Recommendations and Next Steps: Corporate Practice

Linkage to Strategic Plan: To make BC professional engineers and geoscientists synonymous with the highest standards of professional and ethical behaviour.

Purpose:	To determine the course of action with respect to regulatory oversight of corporate practice.
Actions:	1. Receive the report of the Advisory Task Force on Corporate Practice and direct staff to publish it for member and public review and comment; and/or 2. Accept the report recommendations of the Advisory Task Force on Corporate Practice and determine next steps with consideration to how this program can best fit with other regulatory tools, prior to proceeding with Phase 2; and/or 3. Consider the following motions for approval: 1) That Council approve the report recommendations of the Advisory Task Force on Corporate Practice; 2) That Council inform the provincial government of their response to the recommendations made by the Advisory Task Force on Corporate Practice; 3) That Council proceed with the implementation of Phase 2 (recommending a model for corporate oversight) as outlined in the Terms of Reference for the Advisory Task Force on Corporate Practice.

Background

The matter of whether APEGBC should have regulatory oversight over corporate practice in British Columbia is an issue that has been discussed by many APEGBC councils, particularly when major incidents involving engineering or geoscience have occurred. The matter is also raised on an ongoing basis by members and organizations that look to APEGBC to ensure that practitioners and companies within various sectors meet the same quality assurance standards.

The *Engineers and Geoscientists Act* contains provisions for the association to issue certificates of authorization — licences issued to allow individuals and businesses to provide professional engineering or geoscience services. However, nothing in the *Act* prevents companies from operating without such certificates.

In late 2014, APEGBC began examining this complex issue again to determine whether the association should pursue regulatory authority for corporate practice in order to enhance public protection. Council established an Advisory Task Force on Corporate Practice to guide the process of evaluation and member and stakeholder consultation. The task force comprises APEGBC members, licensees and industry representatives, including government, manufacturing, construction, the Association of Consulting Engineering Companies – BC (ACEC-BC), and others.

The mandate of the task force is: Through consultation with members and stakeholders, to examine the issue of regulating companies, organizations, and sole proprietorships that provide professional engineering and geoscience services, and to deliver recommendations to Council on whether APEGBC should pursue regulatory authority in this area.

The task force's work is structured in three phases:

1. Strategic Consultation and Recommendation (complete)
2. Recommend a Model for Corporate Practice Oversight (pending)
3. Develop a Business Plan (pending)

This report represents the conclusion of Phase 1 of this process. Council's direction is required with respect to how to proceed beyond Phase 1.

Discussion

The task force was responsible for developing a comprehensive consultation plan for members and stakeholders. Throughout consultation, the association's primary mandate of public protection remained central to the consideration of this issue. Ensuring members' and industry's perspectives were heard was also a key part of this process.

The task force, working with Compass Resource Management, delivered a comprehensive, two-staged consultation strategy for members and stakeholders. Stage 1 (June to August 2016) focused on early input from members and stakeholders to understand the issues and help guide the development and assessment of different regulatory models to explore during the review. Stage 2 (September to November 2016) focused on more detailed input from members and stakeholders on their preferences for non-regulatory and regulatory options for corporate oversight.

On March 27, the task force held a meeting to finalize its recommendations (report attached). Council will be discussing the work of the task force in depth at its April 27 forum.

Recommendation(s)

The following actions are proposed for Council's consideration:

1. Receive the report of the Advisory Task Force on Corporate Practice and direct staff to publish it for member and public review and comment; and/or
2. Accept the report recommendations of the Advisory Task Force on Corporate Practice and determine next steps with consideration to how this program can best fit with other regulatory tools, prior to proceeding with Phase 2; and/or
3. Consider the following motions for approval:

1) That Council approve the report recommendations of the Advisory Task Force on Corporate Practice;
2) That Council inform the provincial government of their response to the recommendations made by the Advisory Task Force on Corporate Practice;
3) That Council proceed with the implementation of Phase 2 (recommending a model for corporate oversight) as outlined in the Terms of Reference for the Advisory Task Force on Corporate Practice.

Appendix - Recommendations Report*

*Please note: For ease of reading, all attachments within the Recommendations Report have been linked in the Council Wiki. Attachments will be appended to the report for publication to members and stakeholders.

Date: April 13, 2017

Report to: **Council for Decision**

From: Harshan Radhakrishnan, P.Eng.
Practice Advisor, Professional Practice, Standards and Development

Subject: The Climate Change Advisory Group's Response
(to the following motion carried at the 2016 APEGBC AGM *that Council consider developing a proactive guideline that will require all members to take into consideration options to achieve net zero emissions in their professional practice.)*

Linkage to Strategic Plan: To be regarded as a valued partner by clients and employers in all sectors, supporting the delivery of engineering and geoscience services in the public interest.

Purpose:	To report to Council on current activities being undertaken related to guideline development in the area of climate change and to provide advice with respect to any additional considerations regarding the motion.
Motion:	That Council confirm, in response to the 2016 APEGBC AGM motion regarding net zero emissions, the following current work being carried out under the direction of the CCAG should continue as it meets the intent of the AGM motion: 1) The development and revision of relevant Professional Practice Guidelines, delivery of relevant continuing professional development events, relevant conference offerings and other events; 2) The highlighting of members and members' employers who are developing net zero approaches in their practices; and, 3) The consideration of APEGBC working towards net zero emissions with the initial step being to undertake an audit of office energy use and carbon emissions.

Background

At the Council meeting on November 25, 2016, Council approved the following action with respect to the member motion above that was brought forward at the AGM.

Recommended Action: One of the activities of the Climate Change Advisory Group (CCAG) is to consider climate change mitigation. As such, it is recommended that the CCAG be asked to report to Council on current activities being undertaken related to guideline development in this area and to provide advice with respect to any additional considerations regarding this motion. The report should be provided by the April 2017 meeting of Council.

A subcommittee of the Climate Change Advisory Group led by the Chair of the Committee discussed this motion and provided input into the development of this response.

Discussion

To respond to Council's recommended action, the Climate Change Advisory Group formed a subcommittee made up of Mark Porter, P.Eng., Glen Parker, P.Eng., and Rachel Wyles, P.Eng. The group agreed that the wording and intent of the motion needed clarification, and invited the proposer of the motion, Rob McDermot, P.Eng., Chairperson of the Victoria Branch to speak to the CCAG at its 2nd March 2017 meeting. In discussion with the proposer of the motion, the following points were raised:

- the intent of the motion is to spur APEGBC to encourage members to pursue net zero emissions in their professional practice through the development of a guideline or guidelines, where "net zero" implies a balance between GHG emissions produced and avoided (or offset) in the projects and / or the provision of services;
- at a practical level, employers, clients, authorities having jurisdiction and statutory decision makers dictate the scope of services provided by APEGBC members. Therefore, with respect to achieving net-zero emissions in professional practice, it is not practical to develop a single over-arching set of guidelines;
- any guidelines issued which may be applicable to organizations that impact how professionals deliver their services with respect to achieving net-zero emissions are not enforceable by APEGBC;
- agreed that the response should be in line with APEGBC's mandate under the Engineers and Geoscientists Act which is to establish, maintain and enforce standards of practice for its members, and,
- that the development of professional practice guidelines focused on climate change relevant to the carrying out of specific activities is the best way to proceed.

The subcommittee of the CCAG spoke about a three-tiered approach that could at a practical-level, raise awareness about climate change adaptation and mitigation and support members in the provision of adaptation and mitigation-related services:

1. the development and revision of Professional Practice Guidelines, Continuing Professional Development events, conference offerings and other resources,
2. the highlighting of members and members' employers who are demonstrating net zero approaches in their practice, and,
3. the consideration of the APEGBC working towards net zero emissions, the initial step of which could be undertaking an audit of office energy use and carbon emissions.

While more information on the climate change-related activities can be found in Appendix A, the following are, at a higher level, the current and proposed activities supported by the CCAG in relation to the motion:

1. Professional Practice Guidelines, Continuing Professional Development events, Conference Streams, and other resources:
    a. *Whole Building Energy Modelling Services* (under development). In anticipation of the Province's implementation of the Energy Step Code and in response to the City of Vancouver's energy related updates to their building bylaw, these mitigation-focused guidelines seek to establish common level of understanding on the performance metrics to be achieved in the buildings sector.

b. APEGBC runs a dedicated Climate Change Stream at its annual conferences which are moderated by the members of the CCAG. In addition, a range of climate-related CPD events are regularly offered.

2. The CCAG discussed that while the Association doesn't regulate companies to be able to develop guidance around industry best practices in achieving net-zero/carbon neutrality, the subcommittee recommended that the CCAG could highlight companies that are taking steps in their practice area. To this effect, the sub-committee did a high level review of available metrics and measures of employers who are demonstrating net zero/carbon neutral approaches in their practice and is working on developing an article to be included in an upcoming issue of the *Innovation* magazine.

3. In terms of raising awareness around energy use, the CCAG discussed that conducting a post-occupancy evaluation of APEGBC's building energy use given the recent renovations to the APEGBC head office, would enable exploration of the pathways to achieve energy efficiency, and contributing to the dialogue around net-zero buildings (given that the building is heated geothermally, it is envisioned that the path to achieving net-zero will not be a difficult one). Measuring the current level of carbon emissions is the first step towards achieving net zero emissions.

Recommendation

The CCAG thanks the Council for the opportunity to meaningfully engage on the issue of current activities being undertaken related to supporting membership in a changing climate. In response to the motion, the CCAG suggests that the current work being undertaken is supportive of the intent of the motion. Furthermore, the CCAG suggests that the current activities and initiatives such as articles in the *Innovation* magazine provide examples of leading practices in the area of achieving net zero emissions. The CCAG recommends that APEGBC conduct an audit of their own offices to demonstrate leadership in this area. The CCAG looks forward to continued engagement with the Council to provide updates on CCAG's activities in this sphere.

It is recommended that the APEGBC Council approve the following motion:

MOTION**:** That Council confirm, in response to the 2016 APEGBC AGM motion regarding net zero emissions, the following current work being carried out under the direction of the CCAG should continue as it meets the intent of the AGM motion:

1) The development and revision of relevant Professional Practice Guidelines, delivery of relevant continuing professional development events, relevant conference offerings and other events;

2) The highlighting of members and members' employers who are developing net zero approaches in their practices; and,

3) The consideration of APEGBC working towards net zero emissions with the initial step being to undertake an audit of office energy use and carbon emissions.

Appendix A - APEGBC's Climate Change Related Initiatives

Date: April 10, 2017

Report to: **Council for Decision**

From: Governance Committee

Subject: AGM Motion – Reporting Voting by Branch

Linkage to Strategic Plan: Effective governance and resources that enable and guide APEGBC's operations

Purpose:	To consider the motion from the 2016 AGM regarding reporting voting results by branch and make a decision
Motion:	That Council approve publishing voter turnout by branch periodically during the election period as a pilot for the 2017/18 election

Background

At the 2016 Annual General Meeting (AGM), the following member motion was carried:

That Council consider reporting the results of membership voting by branch, which then would be aggregated to the total returns.

APEGBC conducts its election primarily by electronic means. Generally, less than 25 paper ballots are received. As specified in the Election Policy, the provider of the balloting service will ensure

- each member's and limited licensee's vote is kept confidential and in no circumstances will how a member or licensee voted be disclosed to APEGBC;
- no one other than the service provider will have access to voting results until after the closing of voting;

Also outlined in the Election Policy, is that the service provider will track voting by regions and other demographic criteria, as specified by Council from time to time.

As part of the announcement of election results, APEGBC currently publishes the total voting percentage and the votes per candidate.

Discussion

APEGBC uses a two-tier balloting system to ensure anonymity. When someone logs into cast an online ballot, APEGBC authenticates that the individual is a member and that the member is an eligible voter. Once authenticated, the voter is passed securely and anonymously to the ballot service provider. APEGBC knows only that a valid authenticated voting member was handed over to the voting system and the ballot service provider knows only an eligible authenticated voter has entered the system to cast a ballot. APEGBC has no visibility into how a member voted. APEGBC only has the ability to know which members have completed a ballot.

This is to facilitate member exclusions from reminder notifications during the course of the election.

Reporting voter turnout by branch is possible, however, reporting how members voted by branch is <u>not</u> possible.

Some reasons that Council may support publishing voter turnout by branch during the election are:

- possible increased voter turnout through a greater push by branches to promote voting
- greater awareness as to which regions participate more actively in the voting process.

Some considerations to keep in mind are:

- by publishing additional voting data, members may wonder the level of detail to which APEGBC has access (APEGBC does not know how a member voted)
- it is up to members to keep addresses up to date; the data provided may not be 100% accurate but still provides a good indication of voter participation by region.

Due to the complexity of the balloting system, real time updates on voter turnout are not available and can only be provided at the time the report is run. Extracting the data from the report will take staff time but it is expected to be minimal (2 hours per occurrence).

At its February 23rd meeting, the Governance Committee discussed the motion and supported publishing voter turnout by branch periodically during the election period as a pilot for the 2017/18 election.

Recommendation

The Governance Committee recommends that Council approve publishing voter turnout by branch periodically during the election period as a pilot for the 2017/18 election.

MOTION: That Council approve publishing voter turnout by branch periodically during the election period as a pilot for the 2017/18 election

Date: April 10, 2017

Report to: **Council for Decision**

From: Executive Committee

Subject: Consideration of AGM Motion 3: Publication of Member Petitions

Linkage to Strategic Plan: Continue to implement best practices in governance; Public respect for the engineering and geoscience professions is increased.

Purpose:	To provide information regarding the processing of member petitions and an assessment of the benefits and risks of a blanket publication policy.
Motion:	That Council shall endeavor to publish as many petitions as possible, but retain the ability to exercise discretion in determination of whether to publicize 25 member petitions.

Background

Each year, members have the opportunity at the AGM to bring forward motions for consideration by Council. One of the motions brought forward at the 2016 AGM was:

> *That, in the interest of improved openness and transparency with the membership and the public, Council consider implementing a policy of publishing, both in Innovation and by broadcasting to the membership by email, any received written request signed by 25 members [pursuant to section 12(7) of the Engineers and Geoscientists Act] at the earliest possible opportunity.*

This motion was moved by Councillor Ross Rettie, P.Eng., and seconded by Keith Trulson, Eng.L.

At its November 2016 meeting, Council referred this motion to the Executive Committee for consideration with a request that a recommendation be brought to the February 2017 Council meeting. Due to the timing of the Executive Committee meeting and other pressing matters, presentation of this report to the Committee was delayed.

Discussion

Section 12(7) of the *Engineers and Geoscientists Act (the "Act")* states that:

> *The council may, and on written request of 25 members of the association or holders of limited licenses must, take a vote of the members of the association and the holders of limited licences by ballot in the manner determined by the council on any matter that, under this Act, can be voted on at a general meeting of the association.*

The annual general meeting typically includes an agenda item whereby members can bring forward motions "for Council's consideration". This is not a required component of the AGM, but

is included on the agenda as an opportunity to increase member engagement. There is no requirement under the Act that these motions be voted on at the AGM.

The process that Council undergoes in considering a petition is extensive. When a petition is received, it is reviewed by staff and legal counsel to determine if it meets the requirement of section 12(7) of the Act. It is also reviewed to determine if it falls within the legal authority and responsibilities of APEGBC. This advice is then provided to Council so that a decision can be made on whether to put the petition to a vote.

Upon receipt of previous petitions, Council has attempted to contact the signatories to hear their concerns, gain additional information if necessary, and to advise about the process. Signatories are also advised as to Council's final decision as to whether the petition will be put to a member vote. Traditionally Council has not published that it has received a petition beyond acknowledgement to the signatories unless it is put to a member vote.

The motion from the 2016 AGM asks Council to consider publishing all petitions that are received.

Similar Processes

There are two similar processes that APEGBC follows regarding publication of materials received from members.

1. *Motions from the Floor at the AGM*
   When members submit motions for debate at the AGM, a Council delegated group reviews each motion to confirm its conformance with Robert's Rules specifically: relevancy to APEGBC's mandate; alignment with the Act, Bylaws and Robert's Rules; and use of respectful language (cannot be discourteous, unnecessarily harsh, or reflect on a member's conduct or character). If motions are not in conformance the submitting member is advised and if appropriate is given the opportunity to amend their suggested motion. If agreement is not able to be reached the Chair advises the assembly that a motion received was ruled out of order as it does not conform to the rules.
2. *Letters to the Editor of Innovation Magazine*
   Letters to the Editor are published on a space available basis though every effort is made to publish as many letters as possible. Should a letter be received that states misinformation, uses disrespectful language, or maligns another individual, the individual is advised that the letter cannot be published as is and they are asked to amend the offending content. Should the individual refuse, the editor may make the decision not to publish or if the decision is controversial, may refer the letter to the Editorial Board for final publication decision.

In both these instances, APEGBC retains the right to determine what is published.

Benefit/Risk Analysis of a Policy that Requires Publication:

Benefits:

1. **Demonstrates a high level of transparency to members and the public.** In publishing all 25 member petitions received, Council will demonstrate to members and the public that it aligned with the value of transparency, and that any issue that is brought before them in this manner will be open for discussion by members.

2. **Could be used as a tool to hold Council accountable.** Should a situation arise where Council is acting in a manner that could be considered contrary to its role as a public interest regulator, requiring publication of 25 member petitions would be one way of raising member and public awareness of the issue.

3. **Could serve to increase member engagement and build member trust** (this could also be a significant risk in that the petition could cause members to lose trust in Council and disillusion them with the work of the association).

Risks:

1. **The ballot question in the petition may not be within Council or APEGBC's authority** to address (e.g., that Council consider requiring employers to pay for the professional development of their employees; that Council consider requiring municipalities to use Quality Based Selection when choosing a consultant). While it is possible for APEGBC's lack of authority/jurisdiction to be explained to members, it could serve to falsely raise members' and others' expectations and negatively impact the association's relationships with other entities.

2. **The ballot question in the petition may not be factual.** It is possible that the information provided by the petitioners may include information that is either not factually correct or is presented as fact when it is debatable information. The petitioners may be unwilling to change the information in the ballot question to make it factually correct or to qualify that the information provided is a matter of opinion. While APEGBC could provide clarifications in its presentation of the material, it is possible that the information could be presented out of context with APEGBC publications cited as the source. Creating gaps between member/public perception and reality is both a reputational and operational risk. The damage that it creates is cumulative and lasting, and impedes the organization's ability to carry out its work.

3. **Petition content may erode government and/or public confidence in APEGBC and/or engineering and geoscience professionals.** When drafting or voting on ballot questions, it may not be top of mind for members how the government or the public would view a particular ballot or its outcome. Some ballot questions or petition content could have a significant negative impact on the reputation of APEGBC and its members and adversely affect the trust or respect the public and government have for engineering and geoscience professionals and/or APEGBC. A high level of professionalism needs to be reflected in the individual conduct of professionals to ensure continued societal confidence in the engineering and geoscience professions.

4. **Member and public confusion.** The ballot question may be one that is specified in the *Act* or other legislation to be one that members are not entitled to determine (e.g., amount of the member fee). Publishing this type of question may confuse members and the public regarding who holds the authority for various decisions. While it is possible to clarify in the communication that it is not being put to a ballot vote because it is not a member decision, not all members thoroughly read information that is provided.

5. **Magnified importance of an issue**. Because the number of signatories required for a petition is very low, it may only reflect the views of a small number of members; however, the publicity/exposure given to the petition content may elevate its perceived level of importance to the association, and therefore how other stakeholders respond to the association (e.g. perception that member interest is greater than public interest causing government to question APEGBC's focus).

6. **Petitions received may breach privacy or other legislation.** It is possible that 25 members could put forward a motion that breaches an individual's privacy or defames an

individual or entity. If APEGBC were to publish this type of information it would be complicit in this action.

Removing Council's discretion to assess and manage the risk associated with the publication of each individual petition could result in serious legal and reputational damage to the association and potentially to others. Publication of petitions that Council does not consider appropriate will also consume considerable resources to develop appropriate messaging and to respond to feedback from members, government, media, and the public.

Content of Publication:

Should it be determined that the benefits of publication outweigh the risk and a policy is developed that requires Council to publish all petitions received, the contents of what will be published will need to be outlined in the policy. One possible means of managing the risk of publication could be for Council to not commit to publishing the actual ballot question, but rather to publish the concept of what is being requested. Council should also always maintain the ability to redact defamatory or other inappropriate content at its discretion.

Council should consider whether to publish the names of all the petitioners so that there is full public ownership of the petition being put forward. This may however be used as a tool to create publicity for those members putting forward the petition.

Should automatic publication of petitions be put into policy, retaining Council's discretion with respect to what is published is strongly recommended.

Timing of Publication:

The AGM motion also stated that petition content should be published "at the earliest possible opportunity." Should it be determined that the benefits of publication outweigh the risk, it will need to be determined within what timeframe Council must publish the petition content. This could be:

1. **Within a certain time period from when the petition is received.** This option provides the most clarity around when the ballot question will be published and can be used to force a timely decision on whether to hold the ballot. It will need to consider the publication dates of *Innovation* magazine so will likely need to be no less than three months from receipt. It is possible that Council may not have been able to consider the petition or receive expert advice in this timeframe so the petition question may need to be published without any needed context as noted in the benefit/risk section of this paper.

2. **Within a certain time period from when Council determines whether to proceed with the petition**. This option allows APEGBC to receive expert advice before the petition is published so that risk can be mitigated as much as possible. This option could however be utilized to inappropriately delay publication as Council could take an excessive amount of time to make a decision on whether to proceed just to avoid or delay publication.

Recommendation

There is significant legal and reputational risk as well as operational cost to APEGBC should Council implement a policy that requires publication of all 25 member petitions received regardless as to their appropriateness or validity. There are a number of other means available to members to publicly raise concerns if they believe that Council has not effectively dealt with an issue or behaved inappropriately including advising government, publishing concerns via

social media or mainstream media, or raising the matter at branch or division meetings or other member events such as the Annual General Meeting.

For these reasons it is recommended that Council:

That Council shall endeavor to publish as many petitions as possible, but retain the ability to exercise discretion in determination of whether to publicize 25 member petitions.

Date: April 12, 2017

Report to: **Council for Decision**

From: Deesh Olychick
Director, Member Services

Subject: Questions and Answers with Council Candidates

Linkage to Strategic Plan: Effective governance and resources that enable and guide APEGBC's operations

Purpose:	To decide on the process for determining whether to include the Q&A with Candidates for the 2017 Election and the selection of questions
Motion:	That Council delegate the decision for incorporating Q&A in the 2017 Council election and if included, the selection of questions to a sub-committee of Council consisting of the following members: Bob Stewart, P.Eng., Suky Cheema, CPA, CA, Ken Laloge, CPA, CA, TEP, John Turner, P.Ag (ret), David Wells, JD, _____ and _____.

Background

Each year, candidates running for Council election are invited to submit a candidate statement. The current candidate statement form provides candidates an opportunity to make a statement about their interest in running for Council and list professional experience, education, APEGBC activities, related professional activities, community involvement and awards and honours. The content is limited to 400 words for candidates running for Council and 800 words for candidates running for President or Vice-President.

The average voter participation in elections is around 23%. In the 2016 member satisfaction survey, those members that don't participate in voting were asked why; 41% of those members indicated it was because they don't know enough about the candidates or issues and 13% indicated that not enough information is provided.

In 2016, Council decided to include an optional Question and Answer (Q&A) with candidates designed to provide voting members with more information about candidates. The questions were designed to allow candidates to share their knowledge and experience as it relates to the role of a Council member and allows members more insight into the knowledge and experience of the candidates.

Candidates were asked the following three questions:

1. APEGBC is the regulatory authority charged with protecting the public interest with respect to the practice of engineering and geoscience in the province of BC. What is the key challenge facing APEGBC?
2. What are the key issues facing the engineering and/ or geoscience professions?

3. Looking five years ahead, what is your vision for APEGBC as a professional regulatory body in BC?

As part of the 2016 vote, online voters were asked to participate in a survey. 52% of voters participated in the survey (2,407 members) and 82.95% of respondents indicated that they found the Q&A valuable.

In February 2017, Council approved the revised Election Policy which now includes a provision for candidates to participate in additional opportunities that allow members to learn more about candidates, such as the Q&A. Participation in these activities is on an optional basis.

It is recognized that some candidates experienced technical difficulties with the online question form last year. Should it be decided to approve a Q&A component for this year's election, an MS Word or fillable pdf format will be used.

Discussion

A decision needs to made on whether to include the Q&A for the 2017 Council election and if so, which questions to include. Normally, election related items are routed through the Governance Committee and then Council. As there may be members of the Governance Committee and Council considering running in the next Council election, there is potential for a perceived conflict of interest in the discussion of this item as it relates to the next election.

In order to protect the integrity of the election process, all election materials and decisions related to how the election will be conducted, including deadlines for candidate material must be made prior to the publication of the Nominating Committee's list of candidates, which occurs on May 29. This is to ensure that the process is fair and transparent.

To avoid a potential conflict, it is being recommended that Council delegate the decision to a sub-committee of Council members. To keep the process separate from the Nominating Committee, it is also recommended that the Past President (who is chair of the Nominating Committee) not be assigned to the sub-committee. The sub-committee would consist of the President, the 4 Government Appointees of Council, and up to 2 members of Council that are not running in the 2017 election. The sub-committee would need to meet by mid-May to make a decision. If the sub-committee is unable to reach a decision prior to May 29, there will be no Q&A included for the 2017 election.

Recommendation

It is recommended that Council delegate the decision on whether to include the Q&A for the 2017 election and if included, the selection of questions to a sub-committee of Council consisting of the following members: President, the four Government Appointees and two additional members of Council not running in the 2017 election.

Motion:

That Council delegate the decision for incorporating Q&A in the 2017 Council election and if included, the selection of questions to a sub-committee of Council consisting of the following members: Bob Stewart, P.Eng., Suky Cheema, CPA, CA, Ken Laloge, CPA, CA, TEP, John Turner, P.Ag. (ret), David Wells, JD, _____ and _____.

Date: April 11, 2017

Report to: **Council for Decision**

From: Efrem Swartz, LLB
Director, Legislation, Ethics and Compliance

Subject: Policy re Guests Appearing Before Council

Linkage to Strategic Plan: Continue to implement best practice in governance

Purpose:	There is no current APEGBC policy on the method by which requests from guests to address Council are handled. A prior version of this memorandum and the attached policy was presented to the Governance Committee at its meetings on January 18, 2017 and February 23, 2017. The Governance Committee gave feedback on the attached policy and now recommends that it is ready for approval by Council.
Motion:	That Council approve the policy regarding Guests Appearing Before Council as recommended by the Governance Committee.

Discussion

APEGBC's Current Practice

The *Engineers and Geoscientists Act* and the Bylaws are silent as to how the agenda for a Council meeting is determined.

In relation to a prior request by a member to appear before Council, APEGBC staff created the attached "Member Request Form" to be filled out by a guest seeking to address Council (Appendix "A"). The intent of the form is to collect the appropriate information to allow the Executive Committee to evaluate the request and decide whether to allocate time on Council's agenda to hear the guest speak.

The Terms of Reference for the Executive Committee states one of the "Purposes" of the Executive Committee is:

> 3.5 To advise the CEO and Registrar, on matters relating to Council meeting agendas, Council's planning activities and the development of Council initiatives.

Council **Policy CG-4** titled **"Roles and Responsibilities of Council Officers"** suggests that it is the President, in collaboration with the CEO, who is responsible for setting the agenda of Council. The relevant sections of Policy CG-4 reads:

2. The President's duties may include but are not limited to:

   …2.1.2 Ensuring Council discussions are focused on the agenda.

   …2.1.5 Establishing the agenda for meetings in collaboration with the CEO & Registrar.

Other Engineering/Geoscience Regulators

APEGBC collected information from a number of its professional engineering/geoscience regulatory counterparts in other Canadian provinces and territories to learn how they deal with requests by guests to address Council. We posed the following the question:

> **2. Is it typical for you to have external individuals or delegations attending Council meetings to address Council? If so, how does your organization decide which people or delegations are given the opportunity?**

We received the following answers:

Manitoba - Invited guests make presentations to Council as a part of our Ownership Linkage plan. The Ownership Linkage Committee will determine who is invited to present.

Ontario - We frequently have guests, and sometimes they are invited to comment on a motion. This is normally done through the Chair of the meeting, who obviously has control over this, and is always 'arranged for' in advance.

PEI - It is not typical to have this happen. It is normally up to the executive director or the executive committee to decide who is given the opportunity. We have not turned anyone down.

New Brunswick - It is not typical for external individuals or delegations to attend Council meetings. Requests would be evaluated on a case-by-case basis.

NWT and Nunavut - It is not common to have external individuals or groups attending Council meetings to address Council. What occurs more often, is that a written submission is received and presented to Council for their consideration. We have not had the situation where denying a group or person the opportunity to address Council has been considered.

Nova Scotia - No, it is very rare.

Yukon - We very rarely have non-council members attend our meetings, and those that do attend are asked to contact the office first and get put on the agenda. Meetings are theoretically open to the public, although we've never had a member of the public attend one, to my knowledge. No written policy.

Robert's Rules

In section 6 of the APEGBC Bylaws (which pertains to regular Council meetings), there is no specific reference to Robert's Rules. However, Robert's Rules is a well-established guide and is specifically referenced in Council **Policy CG-4** which provides at section 1(1.3) that, "Council meetings are conducted in accordance with *Robert's Rules of Order* as required in the Bylaws[1], except where there is a specification in the Act or Bylaws that overrides them."

Roberts Rules provides that in cases where an agenda is adopted by the majority of an assembly, it becomes binding and subsequently a two-thirds majority is required to adopt any special orders, which would include items not on the agenda or outside of the prescribed order (Robert's Rules 11th edition, pages 372-373, 264).

As such, the Council can reject the agenda put forward by the President, including the President's decision to approve or deny a request by a guest to address Council. Council has the opportunity to overrule the President's decision, either initially when adopting the proposed agenda, or by a two-thirds resolution after the agenda has been adopted.

However, in order to avoid any such controversy, and to provide guidance to the President, Council can, in advance, set a policy by which the President can evaluate requests to address Council. The policy should emphasize the openness and transparency of Council but at the same time restrict guests from appearing before Council on extraneous matters.

Recommendation

The policy by which the President is to evaluate requests to appear before Council, as revised by the Governance Committee, is attached as Appendix "B" for Council's consideration.

Appendix A – Member Request Form
Appendix B – Policy on Guests Appearing Before Council

[1] With respect to Council meetings, this reference in Policy CG-4 appears incorrect. The Bylaws specifically reference Robert's Rules in the context of an APEGBC general meeting but not with respect to Council meetings.

Appendices

5.3 Appendix A

5.4 Appendix A

5.5 Appendix A

5.5 Appendix B

5.6 Appendix A

5.7.6 Appendix A

5.7.6 Appendix B

5.7.8 Appendix A

5.7.8 Appendix B

5.7.8 Appendix C

6.2 Appendix A

- 6.2 Attachment 1
- 6.2 Attachment 2
- 6.2 Attachment 3 (with Appendix 1, 2, and 3)
- 6.2 Attachment 4-6 (CONFIDENTIAL)

6.3.1 Appendix A

6.5 Appendix A

6.5 Appendix B

Registration

● Policy ●Procedure

Engineering: Academically Qualified Applicant Profiles and Review of Experience

a. Procedure for Screening Applicants for Experience Review

b. Policy on Screening of Experience Review Interviewees

PURPOSE

Review of the experience of academically-qualified applicants for professional engineer registration and licence on a risk-management basis allows efficient utilization of volunteer resources and expedites the process, allowing the Registration Committee to screen potential for low risk applicants with respect to interviews; and to focus on more complex decisions.

CREATED

BY:	Date:	Reference:
a. <u>Procedure</u>		
Registration Committee	March 17, 2010	RG10-114 (50% reference checks)
Registration Committee	August 17, 2011	RG 11-220 (5% reference checks; 2 Unanimous Reviews))
Registration Committee	June 20, 2012	RG12-187 (no reference checks Add Washington Accord Low Risk)
Registration Committee	September 21, 2012	RG 11-252 (restating of Low Risk PE Profile)
b. <u>Policy</u>		
COUNCIL	September 14, 2012	CO 12-116[1]
	April 25, 2017	CO 17-XX (add Accredited Employer and Enhanced MIT profiles; add validator to referee terminology)

[1] Consequential change re: renaming of Applications Committee to Experience Review Panel

POLICY AND PROCEDURE:

a. Screening of Applicants for Experience Review (Procedure)

Applicants with a Low Risk ~~Referee~~ Profile:

1. First-time Applicants for P.Eng. or Non-Resident Licence, who have:
   a. more than four years of experience ,in Canada or the United States;
   b. an in-discipline CEAB/MRA or equivalent combination of engineering undergraduate and recognized post graduate degrees;
   c. good documentation; and
   d. A Low Risk Referee Profile[2]:
      outstanding references and/or validator assessments and comments from professional engineers
      i. at least one of whom is a recent P.Eng. supervisor; and
      ii. at least 2 of whom are in the same discipline as the applicant;

   or

   e. been unanimously recommended for registration by three Accredited Member in Training Program Employer Assessors, subject to the auditing requirements of the program

will be considered to have met the experience requirements for registration or licence. ~~approved as Non-Contentious Registration Items.~~

If there is any concern on the part of a validator or referee, the application is to be sent by the Director for review by the appropriate Experience Review Panel.

2. *Professional Engineer Applicants from Washington Accord Countries*
   Applicants from Washington Accord Countries with a profile[3] similar to the U.S. Licensed PE Low Risk Profile[4] will be registered on a non-contentious basis after Director review.

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[2] Low Risk Referee Profile:
- outstanding references and/or validator assessments and comments from professional engineers
  i. at least one of whom is a recent P.Eng. supervisor; and
  ii. at least 2 of whom are in the same discipline as the applicant;

[3] Low Risk (Washington Accord professional engineer) Profile applicants would have
- an accredited degree (likely Washington Accord)
- at least 5 years of professional recognition/certification/licence in their home jurisdiction of practice
- good to outstanding references and/or validator assessments and comments
- at least two in-discipline P.Eng. references and/or validator assessments and comments; and
- at least one in-discipline supervisor reference/and/or validator assessments and comments for Canadian Environment experience.

[4] Low Risk (U.S. P.E. Profile) applicants have
- an accredited degree (likely ABET)
- at least 5 years of licensure in their jurisdiction of practice
- good documentation and references and/or validator assessments and comments ; and
- good to outstanding references and/or validator assessments and comments, at least two of which are from U.S. or Canadian licensed professional engineers in a discipline of practice that is related to that of the applicant.

Enhanced Member-in-Training Program Participants

Members-in-Training who are part of the Enhanced Member-in-Training Program,[5] have been paired with a "Registration Mentor"; and who meet the Low Risk Referee Profile[2] or Enhanced MIT Low Risk Profile[6] **may be registered on a non-contentious basis after Director review.

Two Positive Experience Reviews by Experience Review Panel*

Applicants with two positive reviews from Experience Review Panel members including those who have completed the competencies at the required level with two positive reviews from Competency Assessors are considered to have met the experience requirements for registration or licence.

[5] Enhanced Member-in-Training Program Members have:

- active Member-in-Training memberships with APEGBC
- documented experience on APEGBC's Competency Reporting System
- active mentee status as part of APEGBC's Mentoring Program and have been assigned a Registration Mentor who shares the same discipline or area of practice as the Member-in-Training (Registration Mentors are trained APEGBC P.Eng./P.Geo. volunteers)
- been in a mentoring relationship with the Registration Mentor for at least a period of two years or more; and
- to submit a record of quarterly meeting logs (using APEGBC forms) that are verified and signed off by their Registration Mentor and that show structured meetings with discussions focused on APEGBC's Competency Framework.

[6] Enhanced MIT Low Risk Profile

- Enhanced Member-in-Training Program Member with:
  - Standard Low Risk Referee Profile[2]; or
  - In the absence of a recent or current professional engineer supervisor, or sufficient in-discipline professional engineer validators, the MIT's Registration Mentor may be accepted as a substitute or equivalent validator for one of the low risk profile validator requirements active Member-in-Training memberships with APEGBC. Acceptable combinations for an MIT Program Member to be considered to have a Low Risk Referee Profile are:

Outstanding references and/or validator assessments and comments from	**Recent P.Eng. Supervisor**	**2 P.Eng. Referee/Validators**
Typical Low Risk Profile	≥ 1 in or out of discipline other than Registration. Mentor	≥ 2 in discipline other than Registration Mentor
Scenario 1 MIT Low Risk Referee Profile	Registration Mentor (in-discipline by definition)	≥ 2 with at least 1 in discipline other than Registration Mentor
Scenario 2 MIT Low Risk Referee Profile	1 in discipline other than Registration Mentor	1 in or out of discipline other than Registration Mentor; plus Registration Mentor

b. Screening of Experience Review Interviewees (Policy)

The purpose of this policy is to reduce the number of experience review interviews by screening applicants based on the quality of their references.

Granting of Interviews when there is not an Unanimous Recommendation

Where an applicant has been reviewed by the Experience Review Panel* and has not had a unanimous recommendation from all reviewers to accept their experience for registration, the applicant will only be granted an interview in two cases:

Case 1:

i. all the applicant's references and/or validator assessments and comments are positive and recommend registration but do not meet the Low Risk Referee Profile*; or
ii. any non-positive references and/or validator assessments and comments have been set aside due to supersession by new references and/or validator assessments and comments from the same referees or more current references and/or validator assessments and comments; and the applicant's positive references and/or validator assessments and comments cover sufficient experience to grant registration.

Case 2:

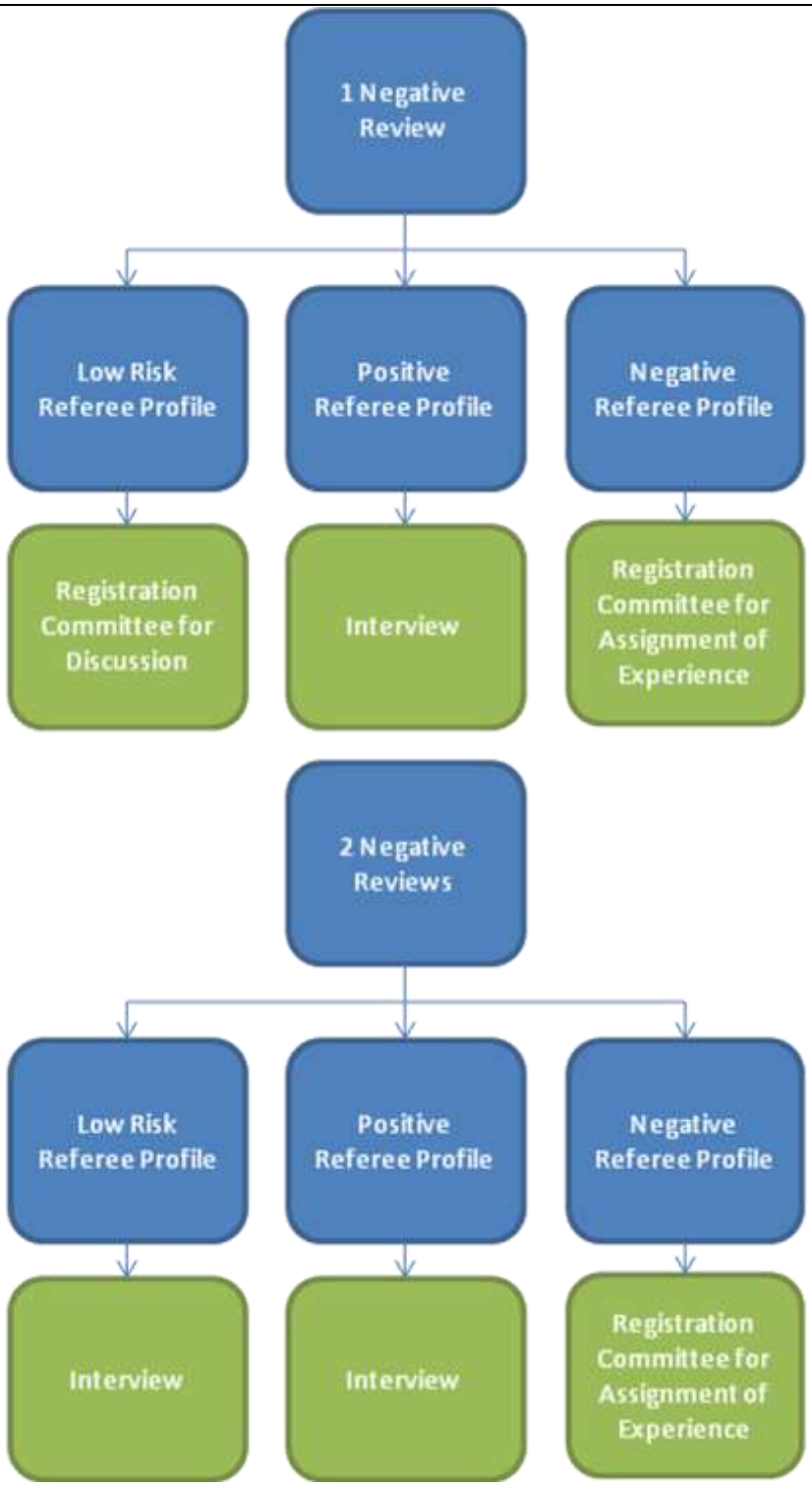
i. the applicant's references and/or validator assessments and comments meet the Low Risk Referee Profile; and
ii. no members of the Experience Review Panel have recommended registration.

Alternative to Interview for Low Risk Profile and Negative/Neutral Referee/Validator Profile when there is not an Unanimous Recommendation (also see chart on next page)

Where an applicant was reviewed by the Experience Review Panel* and was not granted an interview, the candidate shall:

i. in the case of an applicant whose positive references meet the Low Risk Referee Profile:
   a. be considered to have met the experience requirements for registration as a professional engineer;
ii. in the case of an applicant with a Negative/Neutral Referee/Validator Profile:
   a. be assigned experience by the Registration Committee on the recommendation of staff, that is equivalent to the required period of work not covered by positive references and/or validator assessments and comments; such experience shall be assigned according to the fraction of non-positive references and/or validator assessments and comments covering the work period; the applicant shall be required to submit references and/or validator assessments and comments covering the assigned period of work.

b. The experience assignment will identify specific deficiencies or areas for improvement; and the applicant will be encouraged to:
   a. develop a remedial Work Plan for review and approval by the Registration Committee; and
   b. be re-evaluated by the Experience Review Panel* after having completing the assigned experience and providing the additional reference(s) and/or validator assessments and comments.



Cross References: DOCS 83096: Policy on Screening of Looking to Exempt Interviewees

	Eng.L. Application by ASTTBC AScT	Eng.L. Application by ASTTBC PTech	Eng.L. Application by ASET PTech or APEGA P.L. under NWPTA
Academic	Minimum of a 2-year post-secondary diploma in engineering technology		
	Transcript (s) from Tech Institute	Confirmation from ASTTBC	Confirmation from APEGA or ASET
Scope and Experience	Minimum of a 6 years of post-graduation work experience; at least 2 years in proposed scope; under P.Eng. supervision		
	• Scope Proposal (Discipline, Area of Practice, Limitations & exclusions, with Spreadsheet linking Experience, References and supervision to Scope • 4 References/3 P.Eng.	• Scope Proposal (Discipline, Area of Practice, Limitations & Exclusions) • APEGBC Competency Assessment including at least 3 P.Eng. Validators. • Competency Assessment Interview and Scope Refinement	• APEGA or ASET Scope – in Confirmation • Detailed Resume
	List of Projects and Project Report in Proposed Scope		• Scope Accepted Reformatted to APEGBC Format and to reflect local codes, practices, standards and requirements related to
	• Review for alignment of academic, experience and scope • Interview • Scope Refinement	**Possible Joint Process at time of PTech and Eng.L. concurrent application** • Review for alignment of academic, experience and scope • Interview • Scope Refinement	
Law and Ethics	• NPPE	• NPPE assumed complete	• NPPE assumed complete
	• NPPE Essay	• NPPE Essay	• Essay Waived
	• Online Seminar	• Online Seminar	• Online Seminar Waived

TERMS OF REFERENCE

1. Name: Registration Committee

2. Type/Reporting Relationship:

2.1 Type:
Committee established under Bylaw 7(c).

2.2 Reporting Relationship:
The Committee is appointed by Council and reports to Council.

3. Purpose:
To act on behalf of Council in matters related to the registration, licensing and enrolment of applicants and grades of membership; and to advise Council on policy, programs, process and financial matters related to this role.

4. Authorities of the Committee:

4.1 Within the authority delegated by the Bylaws, the Registration Committee shall act on behalf of Council to:

4.1.1 grant registration of applicants as registered members in accordance with the Act and bylaws;

4.1.2 grant enrolment to applicants for other grades of membership[1] in accordance with the Act and bylaws;

4.1.3 grant a licence or limited licence to an applicant, in accordance with the Act and bylaws;

4.1.4 assign examinations or coursework to applicants for registered membership, other grades of membership, licence or limited licence; and

4.1.5 publish guidelines for the administration of the registration and licensing processes.

4.2 The Registration Committee will implement the policies of council for the registration and licensing process.

4.3 The Registration Committee may refer an applicant to the council for a decision on the applicant's suitability for registration or licensing, and (as delegated by the council to the Registrar) to an oral hearing adjudicated by the Registrar when, in

[1] Grades of Membership related to 4.1.2 'other grades of membership' include: Non-Practising Membership; Life Membership or Licensure; Honorary Life Membership or Licensure; Honorary Membership; Engineer-in-Training; Geoscientist-in-Training; Provisional Membership; Licence (*Non-Resident*); Limited Licence; Designated Structural Engineer

the opinion of the Registration Committee, there is a serious concern that the applicant:

i. may not be of good character and good repute; or
ii. may have been convicted in Canada or elsewhere of an offence that, if committed in British Columbia, would be an offence under an enactment of the Province or of Canada, and that the nature or circumstances of the offence render the person unsuitable for registration or licensing.

5. Function/Deliverables:

5.1 To carry out its designated authorities under Bylaw 7(c)

5.2 To research and make recommendations to Council with respect to

a. policies and requirements for registration and licensing
b. bylaws relating to grades of membership, licence or limited licence
c. fees related to registration, licensing and membership
d. appointment of members as examiners, reviewers, assessors and interviewers
e. local, national and international initiatives related registration, licensing and membership

5.4 To develop Terms of Reference and appoint members to Task Forces and Subcommittees in support of its work

5.5 To review and approve the placement of applicants on Engineers Canada's National Registers administered by APEGBC (APEC and IPEA Registers)

6. Budget:

6.1 Except as set out above and as allocated in the Association's annual budget, the committee has no budget authority beyond reasonable expenses for travel, teleconference or ancillary expenses.

7. Membership:

7.1 Four Members of Council; plus

7.2 Six or more other registered members of the Association

7.3 Ex-officio members; Director, Registration and Associate Director, Admissions (voting rights are restricted to approval of Non-Contentious Registration items[2] that have no character issues or confidential letters).

8. Term of Office:

8.1 Appointments of Members of Council are for a one year term which is renewable and continuing until members are reappointed or relieved.

8.2 Appointments are two years normally, renewable twice unless otherwise extended by Council.

9. Selection of Officers:

Examples:

9.1 The Chair is appointed by Council.

9.2 The Vice Chair is selected by the Committee.

10. Quorum:

[2] See Appendix A for a List of Non-Contentious Registration Items that can be approved by the Director, Registration or Associate Director, Admissions

10.1 All items except for Non-Contentious Registration Items[3]: Five (5) members, including at least two (2) current or past members of Council (all applications except for Non-Contentious Registration Items);

10.2 Non-Contentious Registration items: Director, Registration and/ or Associate Director, Admissions

11. Frequency of Meetings:

Example:

11.1 Meetings are normally held 8 times per annum.

11.2 Meetings to approve Non-Contentious Application items may be held weekly or as required.

12. Conduct of Meetings:

12.1 The Committee may meet in person and/or by telephone conference, webcast or other electronic communications media where all members may simultaneously hear each other and participate during the meeting.

12.2 On occasion, a Committee Chair may communicate with all members by e-mail and, with supporting information, propose and call for a consent resolution. At his or her discretion, the Committee Chair may or may not allow limited e-mail discussion on the matter. Beyond this, Committee members have the option of responding by moving, seconding or supporting the motion, or requesting that it be considered further at a meeting of the committee. A consent resolution is deemed to have been achieved if there are no negative votes or calls for in-person discussion, and the number of support votes are equal to or greater than the number required for a quorum. In the case where a member so requests, the motion is not carried, but instead may be brought forward for consideration at a subsequent meeting of the Committee. (In the case of an urgent matter, this may occur at a special meeting conducted by telephone where the normal requirements for a quorum will prevail.) Any motion so carried is considered to take effect immediately, and is ratified at the subsequent Committee meeting and recorded in the minutes of that meeting.

13. Minutes:

13.1 Minutes are the responsibility of the Director, Registration

13.2 Minutes are confidential and distributed only to Committee members.

14. Periodic Reporting and Review of Terms of Reference:

14.1 The Committee shall review its Terms of Reference on an annual basis and submit verification of review to the Governance Committee on a bi-annual basis...

14.2 On behalf of the Committee, the Director, Registration shall submit semi-annual reports to Council on process performance, applicant and member data, new initiatives and other issues as appropriate...

15. Staff Support:

15.1 The key Staff Support for the Registration Committee is the Director, Registration. The administrative support for the Committee will be provided by member(s) of staff as designated for this purpose.

APPROVED BY COUNCIL: October 26, 1995 (MINUTE # CO 95-126)
APPROVED BY COUNCIL: October 24, 2002 (MINUTE # CO 02-141)
APPROVED BY COUNCIL: January 14, 2005 (MINUTE # CO 05-11-1)

[3] See Appendix A for a List of Non-Contentious Registration Items that can be approved by the Director, Registration or Associate Director, Admissions

APPROVED BY COUNCIL: September 8, 2006 (MINUTE # CO 06-98)
APPROVED BY COUNCIL: January 26, 2007 (MINUTE # CO 07-26)
APPROVED BY COUNCIL: October 26, 2007 (MINUTE # CO 07-89)
APPROVED BY COUNCIL: March 13, 2009 (MINUTE # CO 09-38)
APPROVED BY COUNCIL: June 19, 2009 (MINUTE # CO 09-72-2)
APPROVED BY COUNCIL: September 9, 2011 (MINUTE # CO 11-141)
APPROVED BY COUNCIL: September 14, 2012 (MINUTE # CO 12-111)
APPROVED BY COUNCIL: November 25, 2014 (MINUTE # CO 15-20)
APPROVED BY COUNCIL: April 19, 2017 (MINUTE # CO 17-XX)

Appendix A: Non-Contentious Registration Items

Non-Contentious application items include:

A. Inter-Association Mobility
   a. granting registration, licence or enrolment to applicants who are registered members, full licensees, or academically-qualified members-in-training in good standing with constituent associations/ordres of Engineers Canada or Geoscientists Canada; and whose applications are in compliance with Engineers Canada/Geoscientists Canada mobility or trade agreements including the Agreement on Internal Trade and the New West Partnership Trade Agreement

B. Academic Qualification
   b. enrolment of academically-qualified applicants as Engineers- and Geoscientists-In-Training or Provisional Members
   c. assignment of confirmatory examinations in accordance with the Policy on Assignment of Confirmatory Examinations
   d. approval of academic qualifications in accordance with Clauses 1 – 7 and 9 of the *Policy on Minimum Academic Requirements for Registration (Engineering)* and the *Policy on Accredited and Recognized Programs for Foreign Qualifications*
   e. examination assignments approved by the Geoscience Committee Academic Subcommittee
   f. acceptance of examination results
   g. acceptance of equivalent courses approved by the Board of Examiners or the Interview Panel as being equivalent to syllabus topics in which qualifying examinations have been assigned

C. Experience Qualification
   h. approval of the experience of academically-qualified applicants for professional registration or (non-resident) licence when
      i. unanimously approved by two members of the Experience Review Panel or two competency assessors
      ii. unanimously approved by two members of the Geoscience Committee; or
      iii. the Low Risk profile is satisfied in accordance with policy.

D. Academic and Experience Qualification
   i. approval of the academic and experience qualifications of applicants with at least five years of experience in Canada or the United States; or who have demonstrated application of the required Canadian Environment competencies outside of Canada or the United States at a satisfactory level for at least five years in accordance with Item 1 the *Looking-to-Exempt Policy for Engineering Applicants;*
   j. approval of the academic and experience qualification of applicants for non-resident professional engineer licence who have a CEAB/MRA (likely ABET)-accredited degree, are licensed in the United States and have more than five years of experience since licensure, supported by good documentation of experience and good references

E. Member Status Changes & Fees
   k. reinstatement of membership for non-practising members, members-in-training and provisional members
   l. approval of return to practice applications:
      i. when the applicant has been non-practising or a non-member/licensee for less than one year; or
      ii. when an applicant meets the return to practice policy criteria with no outstanding issues related to character or competence
   m. granting of Life Membership
   n. extensions of Provisional Membership
   o. name changes
   p. approval of fee waivers or reductions in accordance with the *Policy for Reduction or Remission of Annual Dues (Hardship)*

TERMS OF REFERENCE

1. Name: Registration Committee

2. Type/Reporting Relationship:

2.1 Type:
Committee established under Bylaw 7(c).

2.2 Reporting Relationship:
The Committee is appointed by Council and reports to Council.

3. Purpose:
To act on behalf of Council in matters related to the registration, licensing and enrolment of applicants and grades of membership; and to advise Council on policy, programs, process and financial matters related to this role.

4. Authorities of the Committee:

4.1 Within the authority delegated by the Bylaws, the Registration Committee shall act on behalf of Council to:

4.1.1 grant registration of applicants as registered members in accordance with the Act and bylaws;

4.1.2 grant enrolment to applicants for other grades of membership[1] in accordance with the Act and bylaws;

4.1.3 grant a licence or limited licence to an applicant, in accordance with the Act and bylaws;

4.1.4 assign examinations or coursework to applicants for registered membership, other grades of membership, licence or limited licence; and

4.1.5 publish guidelines for the administration of the registration and licensing processes.

4.2 The Registration Committee will implement the policies of council for the registration and licensing process.

4.3 The Registration Committee may refer an applicant to the council for a decision on the applicant's suitability for registration or licensing, and (as delegated by the council to the Registrar) to an oral hearing adjudicated by the Registrar -when, in the opinion of the Registration Committee, there is a serious concern that the applicant:

Comment [GP1]: Adds specificity of oral hearings for good character issues delegated by Council to the Registrar September 2016

[1] Grades of Membership related to 4.1.2 'other grades of membership' include: Non-Practising Membership; Life Membership or Licensure; Honorary Life Membership or Licensure; Honorary Membership; Engineer-in-Training; Geoscientist-in-Training; Provisional Membership; Licence (*Non-Resident*); Limited Licence; Designated Structural Engineer

i. may not be of good character and good repute; or
ii. may have been convicted in Canada or elsewhere of an offence that, if committed in British Columbia, would be an offence under an enactment of the Province or of Canada, and that the nature or circumstances of the offence render the person unsuitable for registration or licensing.

5. Function/Deliverables:

5.1 To carry out its designated authorities under Bylaw 7(c)

5.2 To research and make recommendations to Council with respect to

a. policies and requirements for registration and licensing
b. bylaws relating to grades of membership, licence or limited licence
c. fees related to registration, licensing and membership
d. appointment of members as examiners, reviewers, assessors and interviewers
e. local, national and international initiatives related registration, licensing and membership

5.4 To develop Terms of Reference and appoint members to Task Forces and Subcommittees in support of its work

5.5 To review and approve the placement of applicants on Engineers Canada's National Registers administered by APEGBC (APEC and IPEA Registers)

6. Budget:

6.1 Except as set out above and as allocated in the Association's annual budget, the committee has no budget authority beyond reasonable expenses for travel, teleconference or ancillary expenses.

7. Membership:

7.1 ~~Five~~ Four Members of Council; plus

7.2 Six or more other registered members of the Association

7.3 Ex-officio members; Director, Registration and Associate Director, Admissions (voting rights are restricted to approval of Non-Contentious Registration items[2] that have no character issues or confidential letters).

Comment [GP2]: As requested by the Past President November 2015 and supported by Registration Committee December 2015 to alleviate workload of Council and reflect current practice

Comment [GP3]: See Appendix A for addition of straightforward return to practice applications (item I (ii))

8. Term of Office:

8.1 Appointments of Members of Council are for a one year term which is renewable and continuing until members are reappointed or relieved.

8.2 Appointments are two years normally, renewable twice unless otherwise extended by Council.

9. Selection of Officers:

Examples:

9.1 The Chair is ~~a member of, and is~~ appointed by Council.

9.2 The Vice Chair is ~~a member of Council or Past Member of Council and is~~ selected by the Committee.

Comment [GP4]: Recommended by Governance Committee to enable flexibility in appointing the Chair

Comment [GP5]: Consequential Change to match selection of Chair

10. Quorum:

10.1 All items except for Non-Contentious Registration Items[3]: Five (5) members, including at least two (2) current or past members of Council (all applications except for Non-Contentious Registration Items);

[2] See Appendix A for a List of Non-Contentious Registration Items that can be approved by the Director, Registration or Associate Director, Admissions

10.2 Non-Contentious Registration items: Director, Registration and/ or Associate Director, Admissions

11. Frequency of Meetings:

Example:

11.1 Meetings are normally held 8 times per annum.

11.2 Meetings to approve Non-Contentious Application items may be held weekly or as required.

12. Conduct of Meetings:

12.1 The Committee may meet in person and/or by telephone conference, webcast or other electronic communications media where all members may simultaneously hear each other and participate during the meeting.

12.2 On occasion, a Committee Chair may communicate with all members by e-mail and, with supporting information, propose and call for a consent resolution. At his or her discretion, the Committee Chair may or may not allow limited e-mail discussion on the matter. Beyond this, Committee members have the option of responding by moving, seconding or supporting the motion, or requesting that it be considered further at a meeting of the committee. A consent resolution is deemed to have been achieved if there are no negative votes or calls for in-person discussion, and the number of support votes are equal to or greater than the number required for a quorum. In the case where a member so requests, the motion is not carried, but instead may be brought forward for consideration at a subsequent meeting of the Committee. (In the case of an urgent matter, this may occur at a special meeting conducted by telephone where the normal requirements for a quorum will prevail.) Any motion so carried is considered to take effect immediately, and is ratified at the subsequent Committee meeting and recorded in the minutes of that meeting.

13. Minutes:

13.1 Minutes are the responsibility of the Director, Registration

13.2 Minutes are confidential and distributed only to Committee members.

14. Periodic Reporting and Review of Terms of Reference:

14.1 The Committee shall review its Terms of Reference on an annual basis and submit verification of review to the Governance Committee on a bi-annual basis...

14.2 On behalf of the Committee, the Director, Registration shall submit semi-annual reports to Council on process performance, applicant and member data, new initiatives and other issues as appropriate...

15. Staff Support:

15.1 The key Staff Support for the Registration Committee is the Director, Registration. The administrative support for the Committee will be provided by member(s) of staff as designated for this purpose.

APPROVED BY COUNCIL: October 26, 1995 (MINUTE # CO 95-126)
APPROVED BY COUNCIL: October 24, 2002 (MINUTE # CO 02-141)
APPROVED BY COUNCIL: January 14, 2005 (MINUTE # CO 05-11-1)
APPROVED BY COUNCIL: September 8, 2006 (MINUTE # CO 06-98)
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i. unanimously approved by two members of the Experience Review Panel or two competency assessors

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D. Academic and Experience Qualification

i. approval of the academic and experience qualifications of applicants with at least five years of experience in Canada or the United States; or who have demonstrated application of the required Canadian Environment competencies outside of Canada or the United States at a satisfactory level for at least five years~~more than seven years of experience, five of which are in Canada or the United States, and with a Foreign-Listed Undergraduate Program~~ in accordance with Item 1 the *Looking-to-Exempt Policy for Engineering Applicants;*

j. approval of the academic and experience qualification of applicants for non-resident professional engineer licence who have a CEAB/MRA (likely ABET)-accredited degree, are licensed in the United States and have more than five years of experience since licensure, supported by good documentation of experience and good references

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n. extensions of Provisional Membership

o. name changes

p. approval of fee waivers or reductions in accordance with the *Policy for Reduction or Remission of Annual Dues (Hardship)*

Comment [GP6]: Consequential change to reflect policy update approved by Council February 2016

Comment [GP7]: Approved by Registration Committee August 2016 for addition to Non-Contentious list to expedite straightforward return to practice applications.

3/14/2017

APEGBC Accredited Employer Member-in-Training Program

Cost-Benefit Analysis

P.Eng "Graduates" of the program at the Feb 21, 2017 Induction Ceremony with current APEGBC President Bob Stewart, P.Eng.

Jason Ong
APEGBC

Table of Contents

1. Executive Summary

In April 2014, Council endorsed in principle for implementation by APEGBC, five recommended promising practices, as detailed in the final report of the Special Task Force on Alternative Admissions and Registration Systems.

One of the five recommendations was to implement an Accredited Employer Training Program, based on the competency assessment framework, whereby engineering and geoscience employers will be able to create their own training programs and apply to have the programs accredited by APEGBC. Applicants who have completed their training through an accredited training program will join the Low Risk Expedited Review (LRE) registration pathway and will therefore not have their applications scrutinized as closely as others. APEGBC will only need to check a percentage of applications from accredited training programs as part of an accreditation auditing process.

On February 13, 2015 Council passed two motions approving the framework for the APEGBC Accredited Employer Member-in-Training (MIT) Program as well as the Pilot Project Plan.

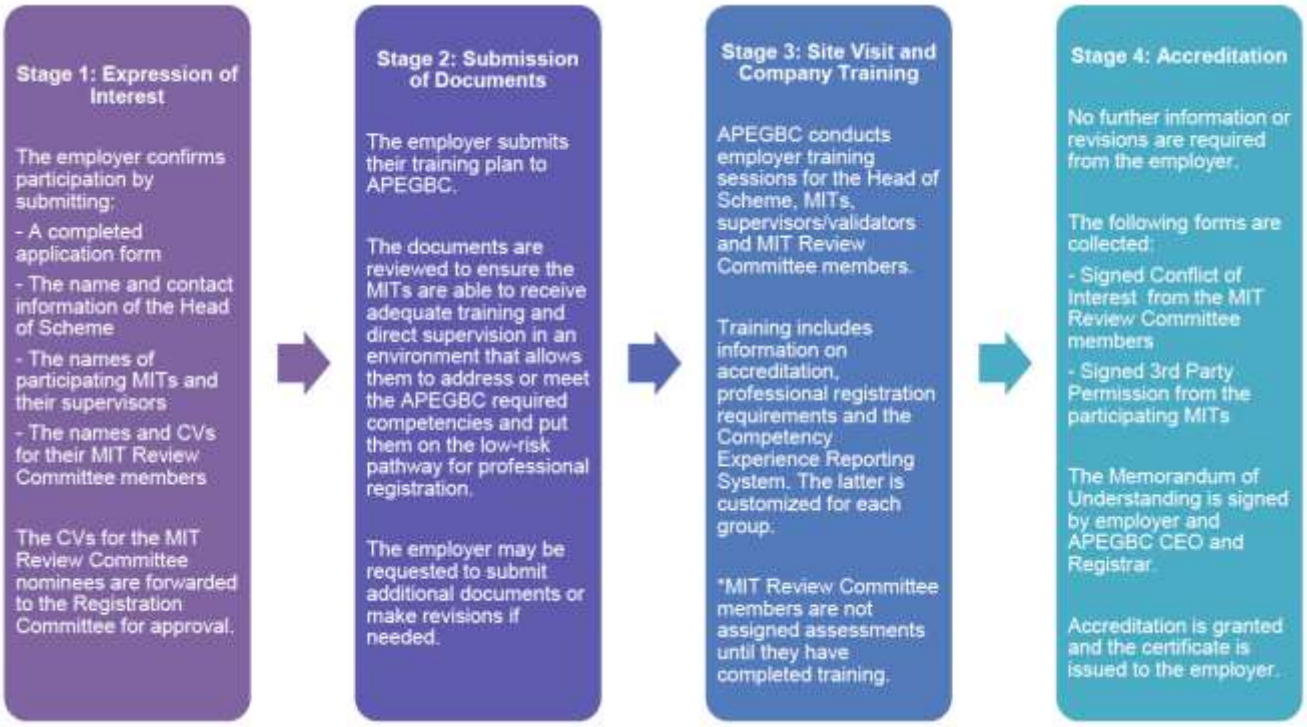
2. Program Overview

In order to become accredited, a company must develop its own framework for its MIT program that meets APEGBC's standards or submit an existing one for review. The company will then apply for accreditation. APEGBC will review the company's application documents and conduct a site visit to conduct training. APEGBC will either inform the company of changes that will be required or grant accreditation. Accreditation is granted for a period of three years.

Accredited programs must utilize APEGBC's competency assessment system. The competency assessment system moves away from traditional measures of experience and focuses on a candidate's achievement of key competencies. In order to be registered as a P.Eng., a candidate must have 4 years of experience and describe how that experience demonstrates their achievement of the key competencies to the required standard. The experience must be validated (did the candidate actually do the work described at the level claimed) and assessed (does this work satisfactorily demonstrate achievement of a key competency).

Once accreditation has been granted, the employer will be able to validate and assess the experience of candidates in their MIT program. The validation of an MIT's experience will be completed by their engineering supervisor and the assessment of their experience will be completed by a committee of independent reviewers (the MIT Review Panel). APEGBC will

register all MITs recommended for registration by the MIT Review Panel, unless that MIT is selected for secondary review as part of a quality control check.



3. Pilot Update

Participation

Since the last update, the number of engineering firms participating with provisional accreditation has grown from the initial four to a total of nine employers.

Initial Pilot Companies (2015)	Newly added Companies (2016/2017)
Integral Group	Aplin Martin
Ministry of Transportation & Infrastructure	Dynamic Structures
Omicron	Fast + Epp
COWI Bridge North America	AES Engineering
	Glotman Simpson Consulting Engineers

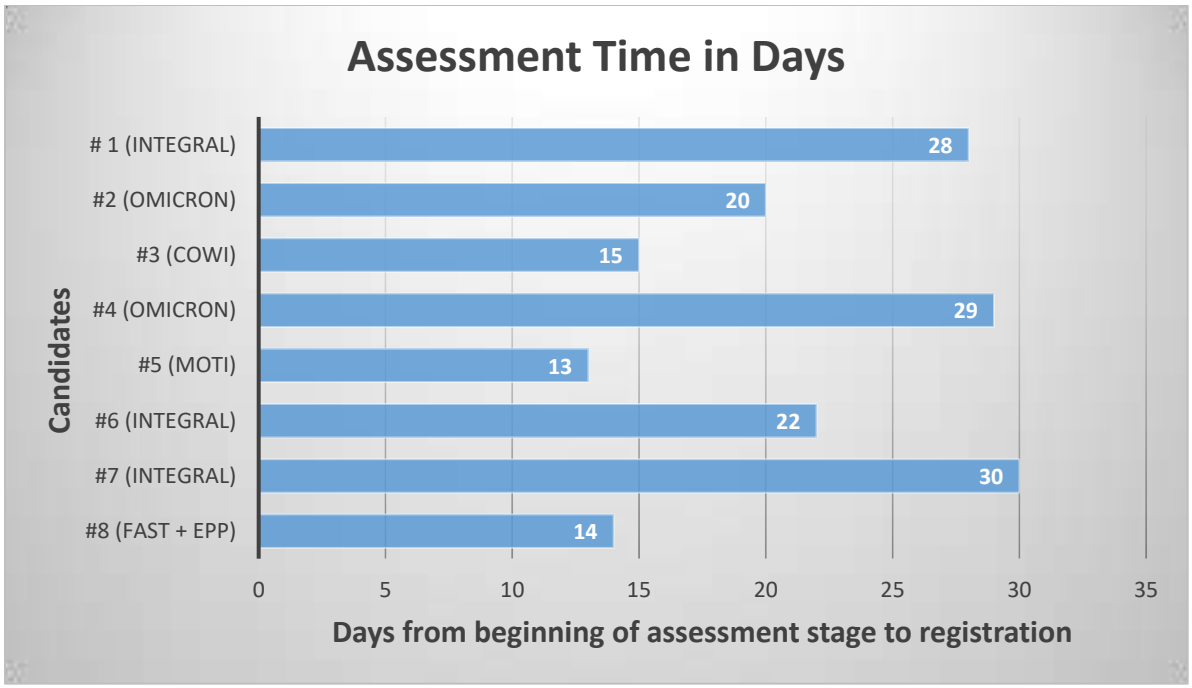
The first four employers have completed the first year of their three-year accreditation phase and are currently in the Self-Assessment Stage. All of these companies have what would be considered good registration track records meaning their EITs generally get registered on the first attempt. This indicates that the working environment provides them with adequate exposure to fulfill APEGBC competency requirements. They also have proper supervision with

P.Eng. supervisors. In addition to that, all of these employers received provisional accreditation only after submitting documentation regarding their existing EIT training plans as well as having their staff undergo specific training sessions developed for each individual employer's EITs, supervisors/validators, and nominated assessors who serve as part of the MIT Review Panel. All of the MIT Review Panel members have been approved by the Registration Committee for appointment as volunteers.

Company	# EITs currently participating	# MIT Review Panel Members	# P.Eng. "graduates"
Integral Group	3	3	3
Ministry of Transportation and Infrastructure	15	14	1
COWI North America	4	3	1
Omicron	8	3	2
Aplin Martin	6	5	0
Dynamic Structures	11	8	0
Fast + Epp	5	5	1
AES Engineering	10	5	0
Glotman Simpson Consulting Engineers	8	5	0
TOTAL	**70**	**51**	**8**

Results

To date, a total of eight EITs who are part of the program at various accredited employers have "graduated" and received the P.Eng. designation. All of them underwent a review scheme that involved their experience examples and validations on the Competency Experience Reporting System being assessed by two internal MIT Review Panel members from their own company, as well as a third panel member from another accredited employer. Also, in keeping with the program's quality control protocol, for each first applicant from an employer, an additional assessment was conducted by a competency assessor from our general pool, or by the Director, Registration or Associate Director, Engineering Admissions, if the candidate qualified as low-risk. All applicants received a decision to grant the P.Eng. license in less than 30 days from when their applications were ready.



4. Costs

Employer Costs

As recommended prior to initiating the pilot, no monetary fee has been required for an employer to participate. With having nine employers go through the accreditation process, the cost for participation has primarily been with regards to the time in preparation for the accreditation process. This can be divided up into the following activities:

Determining whether to participate in the program	○ Reviewing program documentation ○ Consultation with leadership ○ Consultation with APEGBC
Organizing key roles	○ Determining who will assume the position of Head of Scheme, Nominating MIT Review Panel members, Determining which EITs and supervisors will be participating.
Gathering/submitting existing documentation	○ Providing or creating any documentation concerning EIT training/direct supervision. **No employers have had to create any new documentation*
Scheduling training	○ Scheduling time for APEGBC staff to

	conduct training to MITs, Supervisors and MIT Review Panel members. (3-4 hours)
Performing assessments	○ MIT Review Panel members (Approx. 45 mins to 1 hour per assessment)

Training

One measurable cost with regards to timing has been with regards to the training requirement. To ensure consistency and defensibility of the program, APEGBC staff are required to visit the employer during the accreditation process and provide training to various staff participating in the program. Total time for the training has averaged 3-4 hours in length and employers have had the option of scheduling it all at one time or splitting it for various groups over the course of multiple days.

EIT's	Supervisors	MIT Review Panel
•Intro to APEGBC's Competency requirements •Academic and Experience requirements	•Current APEGBC registration requirements •The role of being a validator	•Current APEGBC Registration requirements •Performing Assessments •Case Studies

It was noted that for some employers, organizing meetings where people could attend an in-person training session was sometimes difficult. Online accessible training modules have been developed for each audience to complete at their own time (approximately 30-45 mins each). In addition to this, the training sessions can also be provided via webinar.

APEGBC Costs

Staff time has been the primary cost with regards to promoting and maintaining the program during the duration of the pilot. Currently, an MIT Program Administrator spends a large portion of her daily duties acting as the APEGBC point person. Some of the duties involve the following:

- Marketing of the program
- Development of training modules for online delivery
- Preparing/conducting employer training
- Monitoring of participants
- Correspondence with EITs, Heads of Scheme, and MIT Review Panels

As the proportion of EITs participating in the program continues to grow, much of the focus has shifted to monitoring the progress of those preparing to apply for P.Eng and undergo the assessment phase. EITs and MIT Review Panel members are maintained separately from our general pool of applicants and assessors and deal directly with the MIT Program Administrator.

5. Benefits

Employer Benefits

- *i) Increased participation in the development of junior professionals*
- *ii) Marketability of employer program to potential hires*

EIT Benefits

- *i) Increased guidance from employer and APEGBC with regards to registration requirements*
- *ii) Expedited assessment and licensure if qualified*

APEGBC Benefits

- *i) Resource Savings in terms of staff/volunteer time*
- *ii) Increased dissemination of APEGBC Competency Framework requirements to stakeholders*

Participating employers have commented that the process to become accredited has not been overly onerous due to the fact that there is zero cost to participate and that no restructuring of their internal EIT training plans has been required.

Aside from the expedited review times that EITs in the program receive, the enhanced guidance from the employer and APEGBC seems to have emerged as a tangible benefit. There have been several EITs, aside from the eight that have been registered, who put forth applications that were pre-screened either by the Head of Scheme, MIT Review Panel, or APEGBC staff that were determined to have not provided enough detail when filling out their competency examples. In each case, the candidate was contacted and advised to redo the submission before reapplying.

With EITs participating in the program being from accredited employers where there is a proven track record of registration success and exposure to the required competencies for registration, this qualifies them as low-risk candidates and as a result, they do not need to be scrutinized like those applying through the general pool of applications.

Quality Control

The secondary review procedure is a post-accreditation quality assurance procedure to be completed by APEGBC. This procedure is intended to confirm that applicants registered through the Accredited MIT Program have met the necessary requirements of the competency framework.

In order to ensure that an employer's accredited program is functioning as described in the company's application for accreditation, and in compliance with the Memorandum of Understanding, APEGBC will review a percentage of candidates recommended for registration by the MIT Review Committees.

To date, the first EIT from each accredited employer assessed by their respective MIT Review Panel has also had a fourth, independent assessment conducted to ensure that the recommendations are aligned with assessments that would be conducted by our general pool of assessors. Five secondary reviews have been conducted and all candidates were also recommended for registration after an independent review.

Potential Monetary Benefits

Further research with regards to potential cost saving benefits is planned. These are aimed at exploring possible incentives to MITs (and employers) participating in the program. Specifically, a waiver or reduction in one or more mandatory registration fees will be examined.

Mandatory Application Fees	Current Fee
P.Eng/P.Geo Application Fee	$315.00 or $472.50[1]
Professional Engineering & Geoscience Practice in BC Online Seminar	$288.75
National Professional Practice Exam (NPPE)	$325.50

Possible consideration will also be explored for accredited employers who currently reimburse the fees of their MITs. In keeping with the Advisory Groups initial recommendation, APEGBC staff are recommending that no application fee be required for employers to participate should the program receive permanent status.

6. Summary

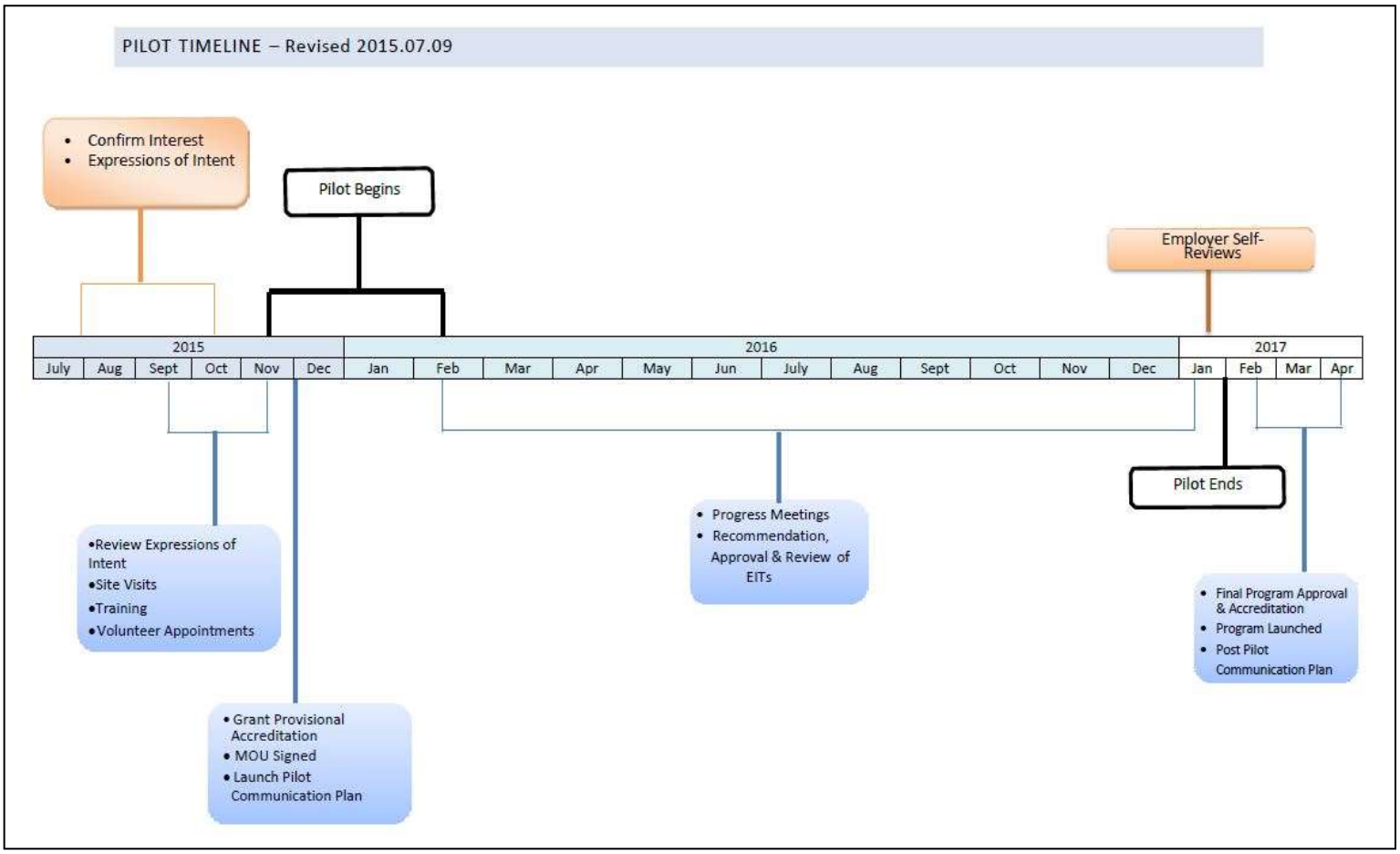
To date, it is felt that the goals of the program are being achieved in that participating employers have had their EITs receive their P.Eng licenses in an efficient process within timelines that are more expedited than EITs who are being assessed outside of the program. The standard of qualifying for the license to practice has also been maintained as proven by secondary reviews that have been conducted. In many instances, employers have shown a propensity to ensure that their EITs being assessed meet and in most cases, exceed the minimum competency requirements.

The program has also been receiving national recognition. Engineers Canada, which is currently involved in helping to facilitate the implementation of APEGBC's Competency Assessment

[1] Fee depends on whether an individual had the initial application fee waived by applying for EIT within 12 months of graduation. If fee was waived, then P.Eng application fee is $315.00. If the EIT applied outside of the 12 month window for fee waiver, they would have already paid the $472.50.

System on a national scale, has been monitoring the progress to date. Internationally, a presentation will be made at the upcoming Council on Licensure, Enforcement & Regulation (CLEAR) 2017 Annual Educational Conference in Denver. The presentation will be focused on how moving to a competency-based assessment approach has allowed regulators to increase collaboration with key stakeholders such as employers and MITs towards building enhancements that make sense for regulation, business and the public interest.

As the benefits of participation in the program appear to outweigh the costs, APEGBC staff would like to gauge the Employer Advisory Group's feedback on whether an endorsement for the Accredited Employer MIT Program to be proposed as a permanent program is warranted. As per the timeline below, it was previously decided to initiate the pilot for the duration of



2016 with a review by the Advisory Group in early 2017.

The process moving forward would be to seek approval and endorsement from APEGBC's Registration Committee and ultimately Council at their future meetings.

TERMS OF REFERENCE

1. Name: Branches

2. Type:

Branches: Branches are geographical groups of members of the association, each represented by an elected Branch Executive. The Branch Executive is responsible for the operations of the branch in accordance with established parameters. For the purposes of this document, "branches" refers to the responsibilities of the branch executives.

"M~~m~~ember" and "membership" includes registered members, licensees, members-in-training, provisional members and student members.

Branch Representatives Committee: The Branch Representatives Committee consists of a representative from each active branch (usually the chair) and the Branch Representatives Chair.

Comment [DO1]: New governance structure

3. Reporting Relationship:

The branches will report to APEGBC Council through the Branch Representatives Committee Chair. While branch executive members are elected by branch members, all branch executive members serve at the pleasure of Council and can be removed from their position by Council.

Comment [DO2]: New reporting relationship aligned with recommendation of Governance Committee

Comment [DO3]: Executive Committee supported adding this new clause to ensure understanding of Council's authority.

4. Purpose:

4.1 Branches provide a communications link between Council and the membership and may be asked by Council to participate in ~~a~~ particular communications exercises.
4.2 Branches reflect the opinions of members to Council on matters relating to the association.
4.3 Branches may organize professional development, social and networking events for the members in the branch and/or to enhance community profile.
4.4 Branches may be asked by Council to implement an outreach program ~~to local schools, local, provincial or federal elected officials and other programs~~ as defined from time to time by Council.
4.5 Branches provide representatives to the Nominating Committee, as defined in the bylaws.
4.6 Branches may present certificates to new members and gold seals to life members at their branch events.

5. Authorities of the Branches:

5.1 Branches may not speak externally on behalf of Council unless delegated to do so by Council, although branches may communicate an existing (Council-approved) policy or position without prior permission from Council.
5.2 Branch executives are communication links between Council and members in their region, and as such must communicate messages consistent with those of the association.
5.3 Branches, when planning continuing professional development events similar to those provided by the association, should review the pricing for the event with association staff to make sure it is consistent (and not competing).
5.4 Any branch can bring a specific policy issue to Council's attention, at any time through the Branch Representatives Committee Chair ~~via their senior staff liaison~~ or Council liaison.
5.6 Branches must seek approval from the association for logo use and must adhere to the Guidelines for Logo Use.
5.7 Branches are not permitted to create APEGBC branded social media accounts.

~~5.6~~5.8 Branches may receive sponsorship requests from other organizations. These requests should be forwarded to the association for consideration.

~~5.7~~5.9 Any branch can provide suggestions on operational issues to their senior staff liaison ~~person~~ who is responsible for managing the budget as set by Council, allocating staff resources and determining procedures for operational issues.

5.10 The branch structure will be reviewed regularly by the Governance Committee to add, merge or stand-down branches where appropriate. Council approves the general branch structure as recommended by the Governance Committee.

5.11 The Branch Manual ~~established by the branches in consultation with the staff liaison, and approved by the Governance Committee,~~ will govern the detailed procedures for branch operations.

6. Function/Deliverables:

6.1 Branches shall have an annual work plan that is complementary to and consistent with ~~the~~ Council's strategic plan and annual work plan.

6.2 Branches shall have an annual budget that is consistent with the branch work plan.

6.3 Branches shall submit to APEGBC an annual report ~~and annual financial statement~~ that is consistent with the branch work plan by **July 21** of each year~~. Branches that provide such reports and statements by **July 21** will~~ to ensure eligibility for grants for the coming year.

6.4 Branches that provide an annual report ~~and annual financial statement~~ by **September 1** will be eligible to send one representative~~s~~ to the B~~br~~ranch Representatives Committee meeting/AGM in October.

6.5 Branches shall communicate with the members in the branch at least twice a year, primarily through electronic means ~~if available~~.

6.6 Branches should, on average, organize events on a cost recovery basis. Revenues from events in excess of costs in some event can be used to subsidize other events as appropriate. In general, branch events will not be subsidized by the association budget.

6.7 Branches should ensure that all events (social, CPD, etc.) should not incur undue risk to participants or the association and any extra expenses (such as insurance, etc.) should be covered by the event income.

6.8 Branches ~~shall have a bank account~~shall require two signatories to ~~requiring 2 signatories for~~two ~~members who may~~ authorize branch expenses and must provide receipts or proof of payment for all branch expenses.

6.9 The branch executives are ~~solely~~ accountable for all branch expenses and are responsible to keep expenses within the current budget.

6.10 Branches should organize events to promote the professions to members and the public as appropriate. Branches should coordinate with association staff when organizing events involving any level of government (to avoid overlaps, etc.).

6.11 Branches should recruit new members to join APEGBC and volunteer with the branch.

7. Resources:

7.1 Branches may apply for an annual grant from the association and are responsible for managing their expenses within approved parameters (~~annual report, annual financial statement, and~~ annual work plan).

7.2 The association shall assign a Council liaison person to ~~a~~ each active branch.

7.3 Association s~~S~~taff~~/association~~ support shall be available for branch communications, web pages and programmed events consistent with Council priorities upon request. All communication must conform to APEGBC brand guidelines. External events will not be promoted through APEGBC's branch communication channels.

7.4 Branches shall have access to the on-line registration module for event registration.

7.5 Branches may use the association offices for meetings and whatever other support is required within budget constraints (IT, phone, photocopying, etc.).

7.6 The President or delegate will make an annual visit to the branches at the request of the branches. (This may be done by web-casting or other media if appropriate).

8. Membership:

Comment [DO4]: This is added to avoid duplication of efforts and to align sponsorship with APEGBC's strategic goals.

Comment [DO5]: The Governance Committee does not get involved in the manual as it is operational.

Comment [DO6]: The financial statements are now prepared by APEGBC

Comment [DO7]: Removed the word "solely" as APEGBC signing authorities must also sign off on expenses and may ask for additional information regarding expenses before they sign off.

Comment [DO8]: Added to reinforce current practice. Other avenues are available to organizations that wish to advertise events to APEGBC members.

8.1 **Branch Membership**: Members of the association whose home/office addresses are in the geographic area or as otherwise instructed by the member.

8.2 **Branch Representatives Committee**: Each active branch will designate one representative to the Branch Representatives Committee (usually the current Chair).

9. Meetings of the Branch Executive:

9.1 Branch business is the responsibility of the branch executive ~~which~~ who are members of APEGBC and would ordinarily consist of Chair, Past Chair, Vice Chair, Treasurer, Secretary, Event Coordinators, Communications Coordinator, and Members at-large.
9.2 Branch executive positions are elected by members of the branch and are normally one year, which can be renewed.
9.3 Each branch shall hold a Branch Annual General Meeting at a specified time for which notice will be circulated at least 2 weeks in advance of the meeting. Election of officers and presentation of financial statements will be done at the AGM.
9.4 Frequencies of branch executive meetings and branch events are at the discretion of individual branches though meetings should be held a minimum of 4 times per year.
9.5 Quorum for branch executive meeting is 50% + 1 based on the total number of executive members. Minimum quorum is 3 executive members. ~~Members at Large are ex-officio members of the Executive and therefore are not counted in determining quorum.~~
9.6 Each branch executive shall set ~~within~~ their own ~~terms of reference~~ quorum for their AGM.
9.7 The branch executive may meet in person and/or by telephone conference, webcast or other electronic communications media where all members may simultaneously hear each other and participate during the meeting. Generally the latest edition of Robert's Rules should be adopted for the conduct of meetings.

Comment [DO9]: Added for clarity as there were questions in the past as to whether a member of the executive needed to be a member of the association.

Comment [DO10]: The wrong terminology is being used here. Members at large are not ex-officio members.

Comment [DO11]: Removed as branches do not have their own TOR.

10. Meetings of the Branch Representatives Committee:

10.1 Branch representatives shall meet by teleconference throughout the year and twice a year face-to-face, once in the spring and once in the fall, during the association's Annual Conference and ~~at the same time as the Association's~~ Annual General Meeting.
10.2 Each branch will be invited to send two representatives to the spring meeting and one representative to the fall meeting at the association's expense.
10.3 Council representatives and senior staff will attend the meeting(s) as required.
10.4 Observers may attend the meetings.
10.5 Branch representatives shall elect a chair for the Branch Representatives ~~meetings~~Committee.
~~10.6 The agenda and minutes of the Branch Representatives Meeting are the responsibility of the assigned APEGBC staff member.~~
~~10.7~~10.6 Quorum for Branch Representative Committee meetings require 50% + 1 of the active branches to be present either in person, by teleconference or other electronic means.
~~10.8~~10.7 Each branch is entitled to one vote. To pass, resolutions require a majority vote of those branches registered for the meeting. The Chair shall not vote. In the event of a tie vote the resolution does not pass.
~~10.9~~10.8 . The committee may meet in person and/or by telephone conference, webcast or other electronic communications media where all members may simultaneously hear each other and participate during the meeting. Generally the latest edition of Robert's Rules should be adopted for the conduct of meetings.
~~10.10~~10.9 On occasion, the Committee Chair may communicate with branch representatives by e-mail and, with supporting information, propose and call for a consent resolution. At his or her discretion, the Committee Chair may or may not allow limited e-mail discussion on the matter. Beyond this, Committee members have the option of responding by moving, seconding or supporting the motion, or requesting that it be considered further at a meeting of the Committee. A consent resolution is deemed to have been achieved if there are no negative votes or calls for in-person discussion, and the number of support votes are equal to or greater than the number required for a quorum. In the case where a member so requests, the motion is not carried, but instead may be brought forward for consideration at a subsequent meeting of the Committee. (In the case of an urgent matter, this may occur at a special meeting conducted by telephone where the normal requirements for a quorum will prevail.) Any motion so carried is considered to take effect

Comment [DO12]: Covered elsewhere (11.1 and 12.1)

immediately, and is ratified at the subsequent Committee meeting and recorded in the minutes of that meeting.

Comment [DO13]: These are standard clauses that have been added to all new TOR's.

11. Branch Representatives Committee Chair:

11.1 The role of the Branch Representatives Committee Chair is to chair the branch representatives meetings, ~~and~~ to work with branches and staff in developing agendas for the meetings and to act as the branch liaison to Council.

11.2 The term of office for the branch chair shall be two years per term. The Chair shall stand for re-election and appointment for each term they wish to serve.

11.3 Selection and Appointment Process

- 11.3.1 The process will be initiated by the resignation, removal or completion of the Chair's term.
- 11.3.2 Call for nominations will be made at least 8 weeks in advance of the vote.
- 11.3.3 A nomination must be made by at least two current branch chairs.
- 11.3.4 Each nominee must have served on a branch executive for at least 2 years with one year in the position of branch chair or vice chair and have attended at least one previous branch representatives committee meeting.
- 11.3.5 Candidates may supply a brief summary outlining relevant professional activities and APEGBC activities. This summary should be no more than 250 words.
- 11.3.6 Nominations and candidate summaries shall be submitted to the assigned APEGBC staff member no less than four weeks in advance of the vote.
- 11.3.7 A list of candidates and any supporting materials will be circulated to all branch chairs a minimum of three weeks prior to the vote.
- 11.3.8 Voting may take place at a face-to-face meeting, teleconference or by electronic means. If the vote is taken at a meeting, the Chair is elected by simple majority of the branches registered in attendance at the meeting. If the vote is electronic, the Chair is elected by the simple majority of those branch representatives who vote by the published deadline. Each branch is designated one vote. In case of a tie, the person to be declared elected shall be the senior in membership with the association. In the case of a plurality vote, the candidate receiving the fewest votes will be dropped from consideration and the vote will be repeated until a candidate receives a majority of votes cast.
- 11.3.9 The member selected by the branch representatives will be recommended to Council for appointment.

12. Minutes:

12.1 Minutes, notes or recording of decisions for Branch Representatives Committee Meetings are the responsibility of staff support.

12.2 Minutes, notes or recording decision of Branch executive meetings ~~minutes~~ are the responsibility of the secretary of the branch executive and should be kept with the branch.

13. Periodic Reporting and Review of Terms of Reference:

13.1 Branches are requested to submit branch member engagement reports periodically throughout the year.

13.2 Branches shall submit an annual report to the Association by July 21.

13.3 The Branch Representatives Committee shall review its Terms of Reference on an annual basis and submit verification of its review to the Governance Committee on a bi-annual basis.

14. Staff Support:

Director, Member Services

Approved by Council: date and CO #

TERMS OF REFERENCE

1. Name: Branches

2. Type:
Branches: Branches are geographical groups of members of the association, each represented by an elected Branch Executive. The Branch Executive is responsible for the operations of the branch in accordance with established parameters. For the purposes of this document, "branches" refers to the responsibilities of the branch executives.

"Member" and "membership" includes registered members, licensees, members-in-training, provisional members and student members.

Branch Representatives Committee: The Branch Representatives Committee consists of a representative from each active branch (usually the chair) and the Branch Representatives Chair.

3. Reporting Relationship:
The branches will report to APEGBC Council through the Branch Representatives Committee Chair. While branch executive members are elected by branch members, all branch executive members serve at the pleasure of Council and can be removed from their position by Council.

4. Purpose:

4.1 Branches provide a communications link between Council and the membership and may be asked by Council to participate in particular communications exercises.
4.2 Branches reflect the opinions of members to Council on matters relating to the association.
4.3 Branches may organize professional development, social and networking events for the members in the branch and/or to enhance community profile.
4.4 Branches may be asked by Council to implement an outreach program as defined from time to time by Council.
4.5 Branches provide representatives to the Nominating Committee, as defined in the bylaws.
4.6 Branches may present certificates to new members and gold seals to life members at their branch events.

5. Authorities of the Branches:

5.1 Branches may not speak externally on behalf of Council unless delegated to do so by Council, although branches may communicate an existing (Council-approved) policy or position without prior permission from Council.
5.2 Branch executives are communication links between Council and members in their region, and as such must communicate messages consistent with those of the association.
5.3 Branches, when planning continuing professional development events similar to those provided by the association, should review the pricing for the event with association staff to make sure it is consistent (and not competing).
5.4 Any branch can bring a specific policy issue to Council's attention, at any time through the Branch Representatives Committee Chair or Council liaison.
5.6 Branches must seek approval from the association for logo use and must adhere to the Guidelines for Logo Use.
5.7 Branches are not permitted to create APEGBC branded social media accounts.

5.8 Branches may receive sponsorship requests from other organizations. These requests should be forwarded to the association for consideration.
5.9 Any branch can provide suggestions on operational issues to their senior staff liaison who is responsible for managing the budget as set by Council, allocating staff resources and determining procedures for operational issues.
5.10 The branch structure will be reviewed regularly by the Governance Committee to add, merge or stand down branches where appropriate. Council approves the general branch structure as recommended by the Governance Committee.
5.11 The Branch Manual will govern the detailed procedures for branch operations.

6. Function/Deliverables:

6.1 Branches shall have an annual work plan that is complementary to and consistent with Council's strategic plan and annual work plan.
6.2 Branches shall have an annual budget that is consistent with the branch work plan.
6.3 Branches shall submit to APEGBC an annual report that is consistent with the branch work plan by **July 21** of each year to ensure eligibility for grants for the coming year.
6.4 Branches that provide an annual report by **September 1** will be eligible to send one representative to the Branch Representatives Committee meeting/AGM in October.
6.5 Branches shall communicate with the members in the branch at least twice a year, primarily through electronic means.
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7.5 Branches may use the association offices for meetings and whatever other support is required within budget constraints (IT, phone, photocopying, etc.).
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8.1 Branch Membership: Members of the association whose home/office addresses are in the geographic area or as otherwise instructed by the member.

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14. Staff Support:

Director, Member Services

Approved by Council: date and CO #

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Viewpoint

Social geology — integrating sustainability concepts into Earth sciences

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ABSTRACT

Most geologists would argue that geoscientific knowledge, experience, and guidance is critical for addressing many of society's most acute environmental challenges, yet few geologists are directly engaged in current discourses around sustainable development. That is surprising given that several attributes make modern geoscience well placed to make critical contributions to contemporary sustainability thinking. Here, we argue that if geoscientists are to make our know-how relevant to sustainability science, two aspects seem clear. Firstly, the geoscience community needs to substantially broaden its constituency, not only forging interdisciplinary links with other environmental disciplines but also drawing from the human and behavioral sciences. Secondly, the principles and practices of 'sustainability' need to be explicitly integrated into geoscience education, training and continued professional development.

1. Introduction

The study of the Earth, its history and how it works provides essential knowledge, experience, and guidance on how to meet many of society's most acute planetary challenges (UNESCO, 1998; American Geosciences Institute, 2011; The Geological Society of London, 2014). Through global socio-economic drivers of international trade, industrialization, urbanization and coastalization we are using more and more natural resources, and the way we are utilizing our resources has started to affect our ecosystem more noticeably and irreversibly than ever before. All this has the potential to impact our ability to sustain the economy, protect national security, eradicate global poverty and preserve the natural environment. Although this interface between wise management of geological resources and risks and social development has been called 'social geology' (Mata-Perelló et al., 2012), it has been argued (Mora, 2013) that '..most geologists tend not to be involved in discussions around sustainable development' (Fig. 1).

The apparent disconnect between geoscience and sustainability may be because the United Nation's (2015) Sustainable Development Goals (SDGs) do not appear, at first glance, to be overtly geological (Fig. 2). And yet, not only is geoscience important to many of the SDGs (Gill, 2016a) but underpinning the whole notion of the sustainability agenda is the broad acceptance that humans are now a dominant geological force on the planet, warranting our own bespoke epoch: the Anthropocene (e.g. Steffen et al., 2011; Waters et al., 2016) (Fig. 3). The fact that some of the cumulative impacts of our anthropogenic changes are now becoming significant enough to be able to be compared with similar events in the geological past means that, more than ever before, many of the central tenets of Earth science bear directly on humanity. In this burgeoning 'human age' the applied aspects of economic geology, petroleum geology, engineering geology, hydrogeology, geohazards and the use of the land-surface for agriculture, housing and infrastructure assume even greater importance, alongside the geological facets of climate science, land and environmental management, and disaster risk reduction. In practice, however, it would seem that most geologists have yet to grasp the wider societal interests and implications of the Anthropocene Epoch debate (see Lewis and Maslin, 2015; Ellis et al., 2016).

Making sustainability thinking more central to geology is not a new idea. Over two centuries ago, James Hutton's seminal 'Theory of the Earth' placed what he referred to as the 'physiology' of our planet at the heart of geology, with his 1788 opus opening with the remark: 'This globe of the earth is a habitable world, and on its fitness for this purpose, our sense of wisdom in its formation must depend'. Given that modern geology rests on such a foundation, it is perhaps surprising that today the geoscience community is less

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Fig. 1. How we exploit our raw materials and natural resources has significant impacts on the future health and well-being of our economy, our environment and ourselves. Although most aspects of securing a sustainable future – such as meeting Society's rising energy demands – have strong geological underpinning, geologists rarely find themselves central to sustainable development thinking.
Authors own.

fully represented in in current discourses on Earth's health and well-being in comparison with other scientific disciplines (Mora, 2013).

Our under-representation is particularly surprising given that several attributes make modern geoscience well placed to make critical contributions to contemporary sustainability issues. As 'Earth System Science', it grapples with the complex linkages between the atmosphere, hydrosphere, cryosphere, biosphere, and lithosphere, giving a unique whole-planet perspective. Those interlinkages have ensured that Earth has maintained itself as a sustainable system over billions of years, recycling the vital components for a habitable planet. Geologists, therefore, possess a valuable synoptic and temporal conceptual framework for evaluating Earth's sustained viability for life.

Even as the rise of Earth System Science has shifted the frontline of our curiosity-driven discipline toward solution-oriented science (Schlosser and Pfirman, 2012), conventional geological inquiry still remains critical. Many of the long-standing methodological limitations of Earth science – incompleteness of data, lack of experimental control, changes occurring too gradually for direct observation or measurement – pertain equally to sustainability science. And with geologists trained in a range of specialized problem-solving skills, they would seem especially well suited to the challenges of developing more sustainable environmental practices. Indeed, as Gosselin et al. (2013) contend:

> 'As a historical and interpretative science, geology can inform society about interactions in coupled human-environmental systems because our skills and proficiencies allow us to recognize the varying manifestations of phenomena at different spatial and temporal scales.'

So, how can the geoscience community increase its involvement and profile in the sustainable development arena? The

Fig. 2. The UN Sustainable Development Goals (United Nations, 2015). The apparent disconnect between geoscience and sustainability may be due to the fact that the SDGs do not appear to be overtly geological.

Fig. 3. The 2006 LUSI mud volcano outburst in eastern Java, Indonesia, provides an example of how human actions can be a major agent of environmental change on the planet. Local drilling for natural gas is widely considered to have triggered the outburst, which after a decade of continuous leakage has displaced 40,000 people and cost almost US$3 billion in damages (Tingay et al., 2015).
Authors own.

science behind sustainability started out as the study of the interactions between human and environmental systems, but it has now evolved into a diverse applied science that seeks societal action to preserve the natural environment through the use and application of scientific knowledge (Bettencourt and Kaurc, 2011). Reflecting this current perspective, if geoscientists are to make our Huttonian 'wisdom' relevant to sustainability science, two aspects seem clear. Firstly, our geoscience community needs to substantially broaden its experience. And secondly, we need to explicitly integrate 'sustainability' into geoscience education, training and continued professional development.

2. Broadening our geoscience experience

With regard to the first concern, it is generally accepted that the 'science strategy to meet the challenge of finding the resources to meet increasing demands and to predict and, if possible, mitigate the adverse impacts that we are having on our planet has to be broad and multidisciplinary.' (Geological Survey of India 2011). According to the Geological Survey of India's 'Geoscience for Sustainable Development' report, this strategy will require geologists, geochemists, geophysicists, geomorphologists and the like to work together in integrated projects with engineers

Fig. 4. Contrasting water projects in Tanzania, showing (left) women collecting water from holes in the ground due to their shallow well not working in the 2014 dry season (constructed in 2013/4), and (right) a fully functioning (as of 2009) 30-year old borehole with a dedicated caretaker (Image credit: J. Gill, used with permission).

and planners. In reality, however, we contend that the interchange will need to be more ambitious than this. If we are to usefully confront societal threats to an ecologically viable planet, the geoscience community will need to collaborate with allied Earth science disciplines such as biology, zoology, ecology, physical geography, agronomy and environmental science.

The importance of working in collaboration with other disciplines to promote sustainability, can be seen in examples from the water sector. Constructing sustainable water supplies in regions such as rural Asia and Africa requires more than an understanding of the technical geoscience and hydrogeology required to identify, extract and monitor groundwater. Sustainability requires an appreciation of location-specific social, cultural, economic, ethical, and environmental factors (Amadei, 2004), ensuring the project has maximum, positive impact and is characterized by ethical interactions with society (Fig. 4). The literature is rich in examples of water projects that have failed, despite a sound technical grasp of the underlying geology, due to poor engagement of communities and an inability to strengthen their capacity to maintain and manage the water supply (Elmendorf and Isely, 1981; Carter and Bevan, 2008). In contrast, sustainable water projects are characterized by strong user participation at each stage (including the geophysical survey, pumping test, water quality assessment) and effective project supervision (Narayan, 1995; Adekile, 2014). In this context, sustainability is achieved either through individuals combining professional competency in hydrogeology, engineering, social sciences and community development, or through effective collaborative teams, drawing from these and other disciplines.

Addressing real-world concerns such as access to clean water (Fig. 5) highlights how, in order to adequately resolve the complexity of contemporary human-environment conflicts, geoscientists will need to draw from the social sciences. The human and behavioral sciences in particular – human geography, anthropology, psychology and sociology – offer robust, empirically-based perspectives on how individuals and communities face up to geo-environmental challenges, and on how scientists can deal with the public over socially contested geoscientific issues (Rapley and De Meyer, 2014; Stewart, 2016). Such perspectives also show that to be relevant in the public arena, geoscientists are going to have to re-think the manner in which they operate, with Schlosser and Pfirman (2012, p. 588) recommending that:

> ' . . . to work on practical problems, Earth scientists will have to take on the role as participants in a broader team of researchers, rather than as observers or advisors, as is currently more familiar. Collaboration with the social sciences, humanities and

Fig. 5. Ritual bathing in the Ganges river at the important Hindu pilgrimage site of Haridwar, Uttarakhand, India. If geoscientists are to usefully contribute to addressing acute societal threats, such as reducing the risk of river flooding or maintaining access to clear water, then they will need to work not only with scientists in allied environmental research fields but also with those in more remote disciplines to appreciate the social, political and cultural context of the problem.
Authors own.

stakeholders will be at the centre of successful ways forward. Direct involvement of the public through crowd-sourcing, as well as conflict resolution between multiple stakeholders — academic, business, community and government — can help build the two-way communication that is necessary for progress.'

The issue of effective communication is especially critical in ensuring that geoscientific know-how reaches those who most need it, whether that be policy makers, civic authorities, business leaders, the media or the public at large. Those areas of geoscience that are at the frontline of societal engagement – most acutely in the fields of climate change and natural hazards – appreciate all too readily that simply explaining the science rarely motivates meaningful mitigation among those at risk (e.g. Wachinger et al., 2013; Rapley and De Meyer, 2014). For decades, social scientists have recognized this dilemma and have developed methodologies and strategies for deconvolving public attitudes, motivations and perceptions about scientific and technological issues (Fig. 6) (for a review, see National Academies of Sciences, Engineering and Medicine, 2016). The crux of the problem is that, as one recent attitudinal survey concludes, ' . . . public concerns about contentious science or technologies are almost never about the science — and scientific information therefore does little to influence these concerns.' (Cormick, 2014). If geoscientists are going to be effective contributors to sustainability issues then we are going to have to learn to better communicate what we know and why it is important.

Geology's communication problem arises in part because ordinary people afford little attention to or interest in to the geological realm (Stewart and Nield, 2013). Few have anything but a vague and often misconceived sense of the subsurface, an alien environment which lies hidden and out of bounds (Gibson et al., 2016). Moreover, most struggle to grasp the cumulative impact of slow, gradual changes over periods that exceed human timespans, or appreciate the feedbacks and tipping points lurking within complex natural systems. That unfamiliarity with geoscience is understandable given that most countries lack a direct exposure to geology within the school curriculum and an absence of popular Earth science in the mass media (Stewart and Nield, 2013). Both deficiencies, to some extent, reflect a lack of incentive among academics and industry professionals to 'go public' with their science. Recently, however, this long-standing science-public disconnect is being countered as national governments, funding agencies and institutions demand greater public accountability for research through increased outreach activity. More and more, geoscientists are being expected not just to undertake geological investigations but to justify why their work is important and tell end users what it means for them. In that context, the impetus to convey geological relevance to sustainable development will only increase.

With these growing societal demands comes an increasing public scrutiny of the ethical dimensions of our geoscientific practices (Wyss and Peppoloni, 2015). Organizations such as the International Association for Promoting Geoethics are working through 24 national chapters (as of January 2017) to demonstrate the importance of all geoscientists having an awareness and understanding of the ethical, social and cultural implications of Earth sciences education, research and practice (IAPG, 2016). That is because, increasingly, society will look to the geosciences not only for sustainably providing its resource base (Lambert, 2001) but also resolving the impact of developmental projects on the environment, human health and the severity of natural hazards (Fig. 8). The emerging view is that ' . . . geoscientists' professional duties go beyond scientific and technological knowledge and skills. Ethics is part of their (our) professional responsibility (Martinez-Frias et al., 2011, p. 257).

Fig. 6. Geoscientific concerns quickly get subsumed into and lost within wider social, economic, and political concerns. Studies from the social sciences show that simply explaining the technical aspects of controversial geoscience interventions, such as hydraulic fracturing ('fracking'), rarely effects meaningful attitudinal change among those individuals and communities at risk. Specifically, public concerns about contentious science are almost never about the science — and scientific information therefore does little to influence these concerns.
Authors own.

3. Integrating sustainability into geoscience education

Despite these challenges, it seems clear that geology and geologists can have a significant role in sustainability science, and specifically in delivering the Sustainable Development Goals (Fig. 7). To achieve this, however, sustainable geoscience will need to become integrated into geological education and professional development. A comprehensive evaluation of the extent to which sustainable thinking is embedded within geoscience teaching worldwide is beyond the scope of this article, but clearly there are markedly different educational practices. In the USA, for example, scientists looking at environmental change, climate change and sustainability tend to be housed in broad Earth and Environmental Science departments. Moreover, 'sustainability is often promoted as a strong organizing principle for modern liberal arts and technical education programs, requiring systems thinking, synthesis, and contributions from all disciplines — geoscientists, natural/physical scientists, social scientists, human and behavioral scientists, and engineers' (Gosselin et al., 2013). By contrast, a cursory analysis of the undergraduate curricula of the twenty highest rated UK Earth science departments (University Subject Tables 2017[1]) reveals only one course with Sustainability' in a module title and only two that refer explicitly to sustainability or sustainable development in their module descriptions. The UK geoscience community, it would appear, is more reluctant than its North American counterpart to embrace sustainability in its training.

Addressing this deficiency could take various forms. An introductory undergraduate module on 'Geology and Society' is a simple and obvious first step in highlighting geological relevancy in the broad arena of sustainable development; in many Geography Departments in the UK, a cluster of courses address these requirements by bringing together Physical, Social and Cultural Geographers. At a more advanced level, existing undergraduate courses on industry-related topics such as economic geology, petroleum geology, engineering geology and applied physical geography could readily be reframed from a sustainability angle. Such reframing might incorporate emerging issues in the energy, resource and construction sectors around social license to operate

[1] http://www.thecompleteuniversityguide.co.uk/league-tables/rankings?s=geology.

Group Definitions		
Earth Materials, Processes & Management	Understanding of '**Earth Materials, Processes & Management**' is important to one or more targets/means of implementation relating to the given SDG.	Colour
Skills & Practice	Sharing of and/or changes to geological '**Skills and Practice**' is important to one or more targets/means of implementation relating to the given SDG.	Grey

Sustainable Development Goals (SDGs)			Geological Sciences										
			Earth Materials, Processes & Management								Skills & Practice		
			Agrogeology	Climate Change	Energy	Engineering Geology	Geohazards	Geoheritage & Geotourism	Hydrogeology & Contaminant Geology	Minerals & Rock Materials	Education#	Capacity Building#	Miscellaneous
1	No Poverty	End poverty in all its forms everywhere.											
2	No Hunger	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.											
3	Good Health	Ensure healthy lives and promote well-being for all at all ages.											
4	Quality Education	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all.											
5	Gender Equality	Achieve gender equality and empower all women and girls.											[a]
6	Clean Water & Sanitation	Ensure availability and sustainable management of water and sanitation for all.											
7	Clean Energy	Ensure access to affordable, reliable, sustainable, and modern energy for all.											
8	Good Jobs & Economic Growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.											
9	Innovation & Infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.											[b]
10	Reduced Inequalities	Reduce inequality within and among countries.											[c]
11	Sustainable Cities & Communities	Make cities and human settlements inclusive, safe, resilient and sustainable.											
12	Responsible Consumption	Ensure sustainable consumption and production patterns.											[d]
13	Protect the Planet	Take urgent action to combat climate change and its impacts.											
14	Life Below Water	Conserve and sustainably use the oceans, seas and marine resources for sustainable development.											[e]
15	Life on Land	Protect, restore and promote sustainable use of terrestrial ecosystems…*											
16	Peace & Justice	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.											[f]
17	Partnerships for the Goals	Strengthen the means of implementation and revitalize the global partnership for sustainable development.											

Notes

SDGs from United Nations (2015).

* (Abbreviated) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Education and Capacity Building are important to some degree within every goal.

Miscellaneous

[a] Promoting equality of opportunities to all (including access to geoscience education). Eliminating all forms of violence and discrimination against women and girls in public and private spheres.

[b] Supporting research and development.

[c] Promoting equality of opportunity, and ending discrimination.

[d] Shared responsibility to improve sustainable practice, particularly in the private sector.

[e] Increased international cooperation on marine protection and research.

[f] Transparency of payments and contracts, helping to fight corruption.

Originally published in Gill (2016a) Episodes.

Fig. 7. Geology and the Sustainable Development Goals: A matrix to visualize the role of geologists in helping to achieve the internationally-agreed Sustainable Development Goals. Adapted from Gill 2016a.

Fig. 8. Society looks to the geosciences not only for sustainably providing the resource base for the global economy, but also resolving the impact of developmental projects on the environment, the severity of natural hazards, and human health. Balancing the opposing demands of 'exploitation' and 'stewardship' will be central to the ethical dimensions of geoscience in the 21st century.
Authors own.

and corporate sustainable responsibility, regulatory and legal aspects of the subsurface realm, as well as new economic evaluations of 'natural capital' and environmental impacts. A fundamental element, however, will be to prepare geoscientists for their evolving future role in the coming age of clean energy, resource constraints and smart cities. In this context, the most substantive way to integrate sustainability concepts into Earth science training will be to design and develop fresh postgraduate courses that exploit interdisciplinary alliances within universities to establish more holistic Earth science perspectives to pressing societal concerns.

Whatever shape 'social geology' may take, the university setting provides an essential framework to bring together students from diverse disciplines with a shared interest in disparate aspects of sustainable development. An instructive example is disaster risk reduction, which can be delivered in modules to geoscientists, engineers, architects, health professionals, social scientists and others. Integrating students from these disciplinary divisions at an early stage of their training and career would help to nurture an appreciation of collaborative research, complementary topical knowledge and different research methodologies, and the skills required to communicate across disciplinary divides. A more prominent framing of sustainability concepts within formal geoscience education programs and continued professional development programs will help to ensure that it becomes a mainstream goal and not simply a specialist sideshow.

Embedding sustainability thinking into undergraduate and postgraduate geoscience courses can be supported by extracurricular activities exposing students to new ideas, research skills, and career paths. In the UK, Geology for Global Development (GfGD) is a not-for-profit organization working to mobilize and equip geoscientists to engage in sustainable development. GfGD works to support geoscientists from the start of their careers to consider the skills and understanding required to support an effective, sustainable application of their geoscience. Examples of key supporting skills include: cultural understanding, cross-disciplinary communication, diplomacy, community mobilization, knowledge exchange, social science research techniques, and analysis of historical records (Gill, 2016b). GfGD supports geoscientists to develop these skills and areas of complementary understanding through a network of student-led university groups, conferences, placements, and engagement in education, outreach and development activities. Together with an enhanced understanding of social vulnerability, development theory and global frameworks such as the Sustainable Development Goals, these skills can aid geoscientists in gathering, understanding and integrating knowledge about location-specific social, cultural, economic and environmental dynamics, to improve their engagement in sustainable development.

4. Conclusion

Building sustainability into geoscience curricula and professional development training seems critical for the emergence of a new generation of geo-professionals well-versed in understanding and addressing sustainability issues (Mora, 2013). How it will be

done is uncertain, and more guidance on how geologists might consider the social consequences of their discipline could come from national geological societies and international geoscientific unions, and arguably even bodies such as the Royal Society or National Academy of Sciences. Certainly there are broader benefits to ensuring it is done. Teaching geology students to work with other scientists, politicians, business professionals, social entrepreneurs, and practitioners in charities and non-governmental organizations to develop viable solutions to current and future environmental and resource challenges is likely to significantly increase their employability prospects. Moreover, stronger academic engagement with local environmental issues will draw in external community-based stakeholders, including employers. In turn, such novel engagements may forge a more sustainable curriculum:

> The inclusion of these modules or exercises in introductory courses could also have the effect of making geology more relevant to students who are fascinated by the subject but who do not pursue it, possibly because they see it as less salient, prestigious, or scientific than other disciplines . . . , particularly by minority students who may view geology simply as the study of rocks. . . . (Mora, 2013, p. 37).

Professional geologists, whether in academia or in industry, are only too aware that their venerable discipline is more than 'rocks'. Demonstrating our relevance to sustainable development through the application of social geology will be an important way of proving it.

Acknowledgments

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INTRAW operational reports: identifying best practices to boost international cooperation in the raw materials sector

PRESS RELEASE | BRUSSELS | APRIL 2017 – The INTRAW project consortium recently launched three operational reports providing insights on best practices and weaknesses of raw materials research & innovation, education & outreach and industry & trade in the five Reference Countries: Australia, Canada, Japan, South Africa and the United States of America.

The EU-funded INTRAW project was launched in 2015 with the aim of mapping best practices and boosting cooperation opportunities related to raw materials between the EU and five technologically advanced non-EU countries (Australia, Canada, Japan, South Africa and the United States).

The project consortium now presents three reports that focus on raw materials research & innovation, education & outreach or industry & trade, in the five Reference Countries. These three reports underpin the development of a better understanding of the achievements made in these five countries in relation to the entire raw materials value chain. The operational report on research & innovation describes and compares the different innovation systems in Australia, Canada, Japan, South Africa and the United States, comprising – among others - the main role players, institutions and policies that drive research and innovation in the raw materials sector. The raw materials educational context in each of the Reference Countries is mapped in the operational analysis of education & outreach. The report on industry & trade notably includes the characterisation of industrial clusters related to raw materials in these countries and the way these clusters affect trade and global competition.

The findings of these operational reports also contribute to the design of the ***EU International Observatory on Raw Materials*** that is to be launched by the end of 2017. The Observatory will be a permanent international body that will remain operational after the end of the project, aiming at the establishment and maintenance of strong long-term relationships with the world's key players in raw materials technology and scientific developments.

The operational reports and their summaries are available through the project website at http://intraw.eu/publications/. As a next step, INTRAW will launch, in the coming weeks, three scenarios describing the world of raw materials in 2050.

INTRAW is funded under the European Commission's Horizon 2020 EU Research and Innovation Programme, for a period of 36 months (February 2015 - January 2018). Under the coordination of the European Federation of Geologists (EFG), INTRAW brings together an international consortium of 15 partners with extensive experience in research, innovation, education, industry, trade and international networking across the entire raw materials value chain.

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 642130.

Intraw

International Raw Materials Observatory

Fostering international raw materials cooperation

MEDIAKIT

April 2017

INTRAW operational reports: identifying best practices to boost international cooperation in the raw materials sector

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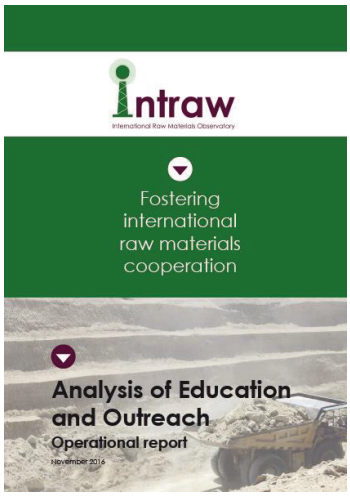

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International Raw Materials Observatory

What is the INTRAW project?

INTRAW is a collaborative project, funded by the European Union's H2020 programme for Research and Innovation, that aims to foster international cooperation on raw materials, and enhance best practice in Europe, on raw materials research, education, trade, recycling and substitution. This will be materialised by the creation of the European Observatory on Raw Materials that will stay active after the end of the funding period. The Observatory will be a permanent international body aiming at the establishment and maintenance of strong long-term relationships with the world's key players in raw materials technology and scientific developments.

Who?

It all started with a call from the H2020 programme for setting a project to enhance raw materials diplomacy and build on best practices from five reference countries (Australia, Canada, Japan. South Africa and the US). Under the coordination of the European Federation of Geologists (EFG), INTRAW brings together an international consortium of 15 partners with extensive experience in research, innovation, education, industry, trade and international networking across the entire raw materials value chain.

What is the goal of the INTRAW project?

The misson of INTRAW is to create the European Observatory on Raw Materials, as an independent organisation that will remain active after February 2018, when the H2020 funding ends. The mission of the Observatory is to support international cooperation on mineral raw materials' research & innovation, education & outreach, industry & trade and recycling, management & substitution of strategic raw materials.

When did the project start and when is the deadline?

The funding period of this 36 months project will end in February 2018. We plan to launch the Observatory in November 2017, during the Raw Materials Week in Brussels.

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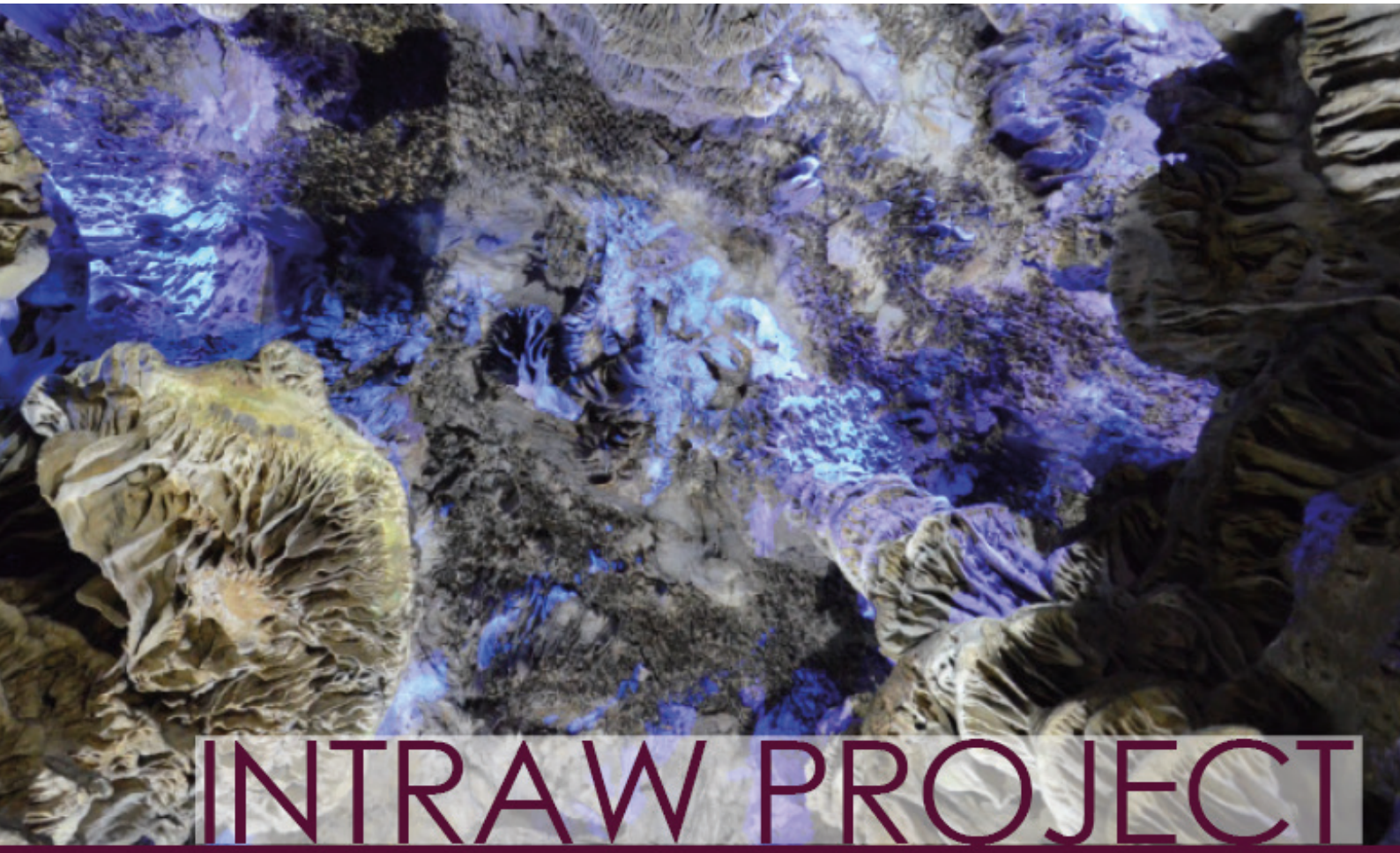

DEVELOPING
THE EUROPEAN UNION'S
INTERNATIONAL OBSERVATORY FOR RAW MATERIALS

HTTP://INTRAW.EU

Association of Professional Engineers and Geoscientists of BC

Advisory Task Force on Corporate Practice

Phase 1 Recommendations Report

April 12, 2017

Professional Engineers and Geoscientists of BC

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Prepared for: APEGBC Council
Prepared by: Advisory Task Force on Corporate Practice
Version date: April 12, 2017

APEGBC Advisory Task Force on Corporate Practice

April 12, 2017

Dear APEGBC Council Members:

On behalf of the Advisory Task Force on Corporate Practice, I am pleased to submit this Phase 1 summary report.

As per the Terms of Reference for the Advisory Task Force, Phase 1 included two components:

1. strategic consultation with members and stakeholders; and
2. development of a recommendation as to whether APEGBC should pursue regulatory authority for corporate practice, and if so, to define the types of entities that should be subject to APEGBC regulatory oversight.

The Task Force held its first meeting in February 2016, and has investigated this subject in depth over the past 14 months, supported by APEGBC staff and Compass Resource Management. On this basis, the Task Force members have become very informed on the subject matter.

This report documents the significant consultation program that was undertaken with members and stakeholders. The program included two rounds of member surveys, as well as targeted consultation with key stakeholders. Attachment 3 provides a summary report on the consultation program.

In addition to the consultation program, the Task Force performed a jurisdictional scan of Canadian provinces and territories, as well as nearby US states. Interviews were also conducted with some other professional associations, including the Association of Professional Engineers and Geoscientists of Alberta (APEGA) which currently has the most comprehensive regulatory program in Canada, the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS), and the BC Law Society which has recently embarked on a program of corporate regulation.

On the basis of its deliberations, it is significant to report that the **Advisory Task Force reached consensus in support of APEGBC pursuing regulatory authority over corporate practice.** Section 3 provides the full recommendation, along with the supporting rationale.

Regarding regulatory coverage, Section 4 suggests three categories of organizations:

- organizations that should be subject to corporate regulation (consulting firms, most public and private sector organizations that perform professional work, and testing companies);
- organizations that require further consideration before determining whether they should be included in corporate regulation; and
- organizations or entities that should be exempt from corporate regulation.

Subject to Council approval, the Terms of Reference for the Advisory Task Force contemplated the following two subsequent phases:

- Phase 2 – recommend a model for corporate practice oversight; and
- Phase 3 – develop a business plan.

We look forward to discussing the Phase 1 summary report with Council, and providing further assistance in the future, should it be requested.

Mike V. Currie, P.Eng., FEC
Chair, APEGBC Advisory Task Force on Corporate Practice

APEGBC Advisory Task Force on Corporate Practice

Phase 1 Recommendations Report

April 12, 2017

Table of Contents

APEGBC Advisory Task Force on Corporate Practice

Phase 1 Recommendations Report

April 12, 2017

1. Introduction

This report documents the Phase 1 recommendations of the Advisory Task Force on Corporate Practice, as appointed by APEGBC Council.

1.1 Overview

The Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) is the regulatory body that oversees the practice of professional engineering and geoscience in BC. It is the duty of APEGBC to uphold and protect the public interest respecting the practice of professional engineering and the practice of professional geoscience (*Engineers and Geoscientists Act*, Section 4.1 (1)(a)). In the fall of 2015, APEGBC's Council established an Advisory Task Force (comprising APEGBC members plus one non-member) to lead a three phase examination of corporate practice and corporate regulation[1]. Phase 1 of the evaluation was to include a structured review and assessment of corporate practice (and regulation) with strategic consultation with members and stakeholders. The purpose of Phase 1 was to provide an informed recommendation to Council on whether APEGBC should pursue regulatory authority over corporate practice and if so, to define the types of organizations that should be subject to regulation. Further phases of the evaluation would be subject to Council approval and would involve more detailed work to develop an appropriate regulatory model and business plan.

What is Corporate Practice and Corporate Regulation?

The term **corporate** in this document and initiative is used in a broad sense to refer to *all organizations* in both the private and public sectors, including any type of private entity formed for business purposes (e.g., corporations, partnerships, sole proprietorships) and any type of public entity (e.g., municipalities, crown corporations, ministries). The term **corporate practice** refers to the provision of engineering or geoscience services and products by organizations. The term **corporate regulation** refers to the licensing and regulation of organizations authorized under legislation.

Corporate regulation would likely involve the prohibition of organizations practising engineering and geoscience in BC unless they have a licence from APEGBC, or are a type of organization that is not required to have a licence. For most jurisdictions in Canada, such licences mean that regulated organizations need to comply with the engineering or geoscience legislation of the jurisdiction, and the Code of Ethics and bylaws issued by the regulating authority. Across jurisdictions, there are also a variety of other requirements and responsibilities of licence holders (for more information, see Attachment 2 - Jurisdictional Scan of Corporate Regulation across Canada).

The Task Force is made up of a diverse cross-section of representatives from the engineering and geoscience sectors, representing industry, government, manufacturing, construction, the Association of Consulting Engineering Companies – BC (ACEC-BC), and others. At the beginning of the review process, most Task Force members had limited direct experience or

[1] See the Advisory Task Force Terms of Reference in Attachment 1.

knowledge on the subject of corporate regulation, but all members became very informed on the subject through the 14-month process to date. During the process, Task Force members committed to keeping open minds to learn; and become well informed during Task Force deliberations and consultations with members and stakeholders.

The Task Force approached its work based on what would be in the best interest of the public and the professions in BC, not as spokespeople or advocates for the organizations or firms that members are affiliated with[2]. The Task Force strived for broad agreement throughout the review process and it is significant to note that the recommendations included in this report **represent consensus recommendations** (accepted by all Task Force members) based on the decisions made at the final Phase 1 Task Force meeting on March 14, 2017.

The first two sections of this recommendations report contain background information about the Task Force and the review process that was undertaken. Sections 3 and 4 contain recommendations specific to the Phase 1 questions posed by Council. Section 5 provides supplemental information and insights gained during the course of the review, and which should be considered further if Council decides to move forward with corporate regulation. Appended to this report are a number of attachments which provide relevant supporting material.

It should be emphasized that throughout this report, whenever there is a reference to professional services or the "practice of professional engineering" or the "practice of professional geoscience," these terms are defined in their broadest sense according to the definitions in the *Engineering and Geosciences Act* (Section 1(1)) and these definitions are repeated below for easy reference.

[2] Some Task Force members were appointed by their respective organizations: ACEC-BC, BC Ministry of Transportation and Highways, BC Hydro and AMEBC. AMEBC subsequently removed their representative due to an inability to attend meetings. APEGBC Council appointed two representatives to the Task Force.

"practice of professional engineering" means the carrying on of chemical, civil, electrical, forest, geological, mechanical, metallurgical, mining or structural engineering, and other disciplines of engineering that may be designated by the council and for which university engineering programs have been accredited by the Canadian Engineering Accreditation Board or by a body which, in the opinion of the council, is its equivalent, and includes reporting on, designing, or directing the construction of any works that require for their design, or the supervision of their construction, or the supervision of their maintenance, such experience and technical knowledge as are required under this Act for the admission by examination to membership in the association, and, without limitation, includes reporting on, designing or directing the construction of public utilities, industrial works, railways, bridges, highways, canals, harbour works, river improvements, lighthouses, wet docks, dry docks, floating docks, launch ways, marine ways, steam engines, turbines, pumps, internal combustion engines, airships and airplanes, electrical machinery and apparatus, chemical operations, machinery, and works for the development, transmission or application of power, light and heat, grain elevators, municipal works, irrigation works, sewage disposal works, drainage works, incinerators, hydraulic works, and all other engineering works, and all buildings necessary to the proper housing, installation and of the engineering works embraced in this definition[3];

"practice of professional geoscience" means reporting, advising, acquiring, processing, evaluating, interpreting, surveying, sampling or examining related to any activity that Potential Criteria for determining regulatory coverage (a) is directed towards the discovery or development of oil, natural gas, coal, metallic or nonmetallic minerals, precious stones, other natural resources or water, or the investigation of surface or subsurface geological conditions, and (b) requires the professional application of the principles of geology, geophysics or geochemistry;

1.2 Background on Corporate Regulation in BC

An early consideration of possible corporate regulation of the engineering and geoscience professions in BC arose from the Closkey Commission, which reviewed the roof collapse on April 23, 1988 at Station Square Mall in Burnaby. The Commission made a series of recommendations[4] including the following two specific recommendations pertaining to the registration of engineering firms:

> *5. Companies, partnerships, firms and other associations that provide professional engineering services to the public should be required to be registered under the Engineers and Geoscientists Act and should apply to all engineering disciplines.*
>
> *6. Such companies, partnerships, firms and other associations should face deregistration for unethical, unprofessional or incompetent practice. Such measures should be in addition to disciplinary proceedings taken against individual members.*

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[3] *"For the purposes of the definition of "practice of professional engineering" […], the performance as a contractor of work designed by a professional engineer, the supervision of construction of work as foreperson or superintendent or as an inspector, or as a roadmaster, trackmaster, bridge or building master, or superintendent of maintenance, is deemed not to be the practice of professional engineering within the meaning of this Act."* (as per Section 1(2) of the Act).

[4] *Report of the Commissioner Inquiry, Station Square Development, Burnaby, British Columbia*, Dan J. Closkey, P. Admin., Inquiry Commissioner, August 1988.

As a result, APEGBC established a Special Review Committee which developed a response to the recommendations in the Closkey Commission Report. The report of the Special Review Committee, published in the *BC Professional Engineer* in June 1991 (APEGBC's professional journal), recommended that:

> *Companies, partnerships, firms and other organizations that provide professional engineering services must be registered under the* Engineers and Geoscientists Act *and that the* Engineers and Geoscientists Act *be amended accordingly and that they must face deregistration for incompetence, negligence or unprofessional conduct.*

A letter ballot was issued to APEGBC members in 1991 and 28% of the membership participated. The results of the letter ballot were:

- 92.8% voted in favour of the following recommendation: "organizations that provide professional engineering services must be registered"; and,
- 93.2% supported the recommendation that "organizations that provide professional engineering services must face deregistration for incompetence, negligence, or unprofessional conduct."

In 1993, Section 10.1 (now Section 14) entitled "Issue of Certificates of Authorization" (CoA) was added to the *Engineers and Geoscientists Act*.

At the time the CoA was proposed, APEGBC also proposed an addition to Section 18, Prohibition on Practice. This provision would have made it illegal for companies to practise professional engineering or geoscience unless they held a CoA. The proposed amendment to this section was not included when Section 10.1 was added to the *Act* in 1993.

In 1996, APEGBC engaged in extensive consultations and recommended to the BC government that, at a minimum, corporations, partnerships or other legal entities should be prohibited from practice unless they held a CoA specific to the following fields:

- consulting engineering or consulting geoscience;
- designing and manufacturing custom design engineered products, structures, processes or facilities; and
- engineering and/or geoscience testing and assessment.

In 2002, after discussions with stakeholders, the BC Government stated that they would not implement APEGBC's recommendations. Since then, the issue of corporate regulation has periodically been raised by members and organizations that look to APEGBC to protect the public.

APEGBC occasionally conducts public opinion polls to assess awareness of APEGBC, and to determine which activities are viewed as most important. In its most recent poll in 2014, of those surveyed, 81% indicated that an important function of APEGBC was to regulate firms to ensure they have qualified professionals and set standards for quality assurance.

After the Mount Polley Dam incident in 2014, renewed questions were raised surrounding the lack of regulation of organizations that practise engineering and geoscience in BC. The BC Ministry of Energy and Mines contacted APEGBC to request a summary of issues related to the potential regulation of companies that carry out professional engineering and geoscience. Motivated by this incident, government's request, and APEGBC's responsibility to uphold and protect the public interest respecting the practice of professional engineering and geoscience,

Council initiated examination of corporate practice and corporate regulation through the Task Force. Government has expressed strong support for APEGBC's evaluation of this issue.

BC and Quebec[5] are the only jurisdictions in Canada where engineering and geoscience organizations remain unregulated. In BC, other professions that regulate organizations include architecture, land surveying, public accounting, as well as a number of the medical professions. The Law Society of BC has also recently been granted the authority by the Provincial Government to regulate law firms and is currently undergoing consultation on a proposed approach for corporate regulation.

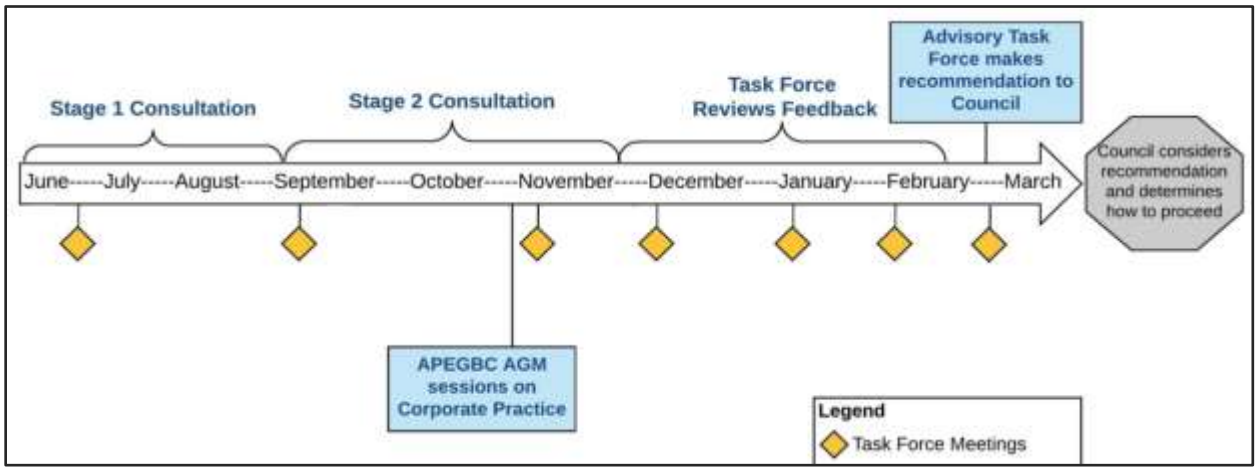
[5] Note that in July 2016, the Ordre des ingénieurs du Québec was placed under trusteeship of the provincial government; accordingly, it is no longer a self-governing body for its 60,000 members.

2. Overview of Task Force Process

2.1 Task Force Review Process

The Task Force was established at the beginning of 2016 and held its first meeting on February 24, 2016. Since that time it met approximately every 6 to 8 weeks and held its final (ninth) meeting on March 14, 2017. The Task Force formed adhoc sub-committees that met on an as needs basis to work on special tasks (e.g., survey design, drafting reports and a discussion paper).

Figure 1: Advisory Task Force on Corporate Practice Review Process



The Task Force's evaluation process consisted of three main components, as noted below.

1. **Background Review and Analysis** – The Task Force spent its first few months researching and assessing the status of corporate regulation in jurisdictions across Canada and neighbouring US States (i.e., in the Pacific Northwest) and across other professional sectors in BC. The preliminary background research included interviews and webinars with regulators from these jurisdictions and sectors. The results of this jurisdictional scan are included as an appendix to Attachment 2.

2. **Consultation with Members and Stakeholders** – The Task Force directed the development and implementation of a comprehensive two-stage communications engagement strategy with members and stakeholders (see Section 2.2 for a more detailed description). Task Force members were actively involved in the development of consultation materials and participated directly in consultation activities.

3. **Detailed Review and Assessment** - The Task Force undertook a detailed review of the consultation feedback which provided a basis for a structured assessment of corporate practice and regulatory models in order to make an informed and defensible recommendation to Council. While the Task Force's Phase 1 recommendations are limited to whether corporate regulation was warranted, the Task Force's evaluation needed to look more deeply at potential corporate regulatory models from across Canada in order to better understand the possible implications that corporate oversight may entail given the context in BC.

Additional support was provided to the Task Force by APEGBC staff who assisted with meeting logistics and consultation activities, and served as a technical resource when called upon. As well, an independent consulting firm (Compass Resource Management) was hired to provide research, facilitation, and strategic decision support to the Task Force.

2.2 Consultation with Members and Stakeholders

Over the last year, APEGBC and the Task Force has engaged in a thorough consultation with members and stakeholders on the topic of corporate practice and corporate regulation. A detailed summary of the consultation activities and feedback is included in Attachment 3: Consultation Summary Report.

Consultation was conducted in two stages (see Figure 1). **Stage 1** (June to August 2016) focused on early input from members and stakeholders to understand the issues and help guide the development and assessment of different regulatory models to explore during the review. **Stage 2** (October 2016 to February 2017) focused on more detailed input from members and stakeholders on their preferences for non-regulatory and regulatory options for corporate oversight.

During the Stage 1 consultation period, updates and background information on the Corporate Practice Review were made available on the APEGBC website and in APEGBC Enews publications. The Task Force solicited members and stakeholders for feedback on the potential benefits and challenges associated with corporate regulation through an online survey, which ran from July 6, 2016 to August 31, 2016. The survey was promoted through two APEGBC Enews publications and received 312 responses. The Task Force also interviewed representatives of engineering and geoscience regulators across Canada to learn about the corporate regulatory models that are operating in other provinces and territories.

To kick-off the Stage 2 consultation period, the Task Force published a discussion paper (Attachment 2) to summarize its learnings and discussions, and outline options for the potential regulation of engineering and geoscience organizations. The discussion paper was paired with an online survey to get feedback from membership on key questions regarding corporate practice and corporate regulation. The survey was open from September 26 to November 30, 2016 and was promoted through consultation presentations, social media, and two direct emails to membership. The survey received a high rate of participation with 1,307 respondents. In addition to the online survey, members provided feedback through in-person consultation events at the 2016 Annual Conference in Victoria and branch meetings held across the province.

During the Stage 2 consultation period, a webinar was held, with participation at approximately 70 locations around the province (with some sites consisting of multiple participants). The webinar was then made available for viewing by all members via the APEGBC corporate practice website.

3. Recommendations on Corporate Regulation

The Advisory Task Force on Corporate Practice reached agreement on the following recommendations:

- That APEGBC pursue regulatory authority over corporate practice.
- That a corporate regulatory model be developed which demonstrates positive impacts to protect the public interest and the environment, and provides benefit to the regulated organizations and the professionals that they employ.
- That the corporate regulatory model be scaled according to the size and nature of the organization, and be administratively efficient.

Why Corporate Regulation?

The fundamental issue underlying corporate regulation is that there are two main influences on the quality of professional practice – *the influence of the individual practising professional and the influence of the organization within which that individual carries out their practice*.

Numerous examples were received during consultation with members and stakeholders to show how organizational influence can have either a positive or negative effect on individual professional practice. It was encouraging to hear how many APEGBC professionals take professional responsibility very seriously and support adherence to the *Act,* Code of Ethics and Bylaws, not only with respect to individual practice, but also at the corporate level. The Task Force also heard from members who expressed concerns, or who were aware of, organizations putting their own interests before professional practice obligations (see Consultation Summary Report for examples of this). As well, APEGBC's Investigation Committee and Practice Review Committee continue to see evidence of shortcomings in how organizations adhere to quality management practices (e.g., lack of checking and review, insufficient direct supervision, inadequate project documentation, etc.).

Based on the review of issues surrounding corporate practice and corporate regulation, and consultation with members and stakeholders, the Task Force is of the opinion that a corporate regulatory model can, and should, be designed and implemented in a way that encourages regulated organizations to support good professional practice, and avoid conflicts of interest with APEGBC's Code of Ethics and Bylaws.

The main reasons leading to the Task Force recommendation in favour of corporate regulation are outlined below.

1. **Corporate regulation would enhance protection of the public interest and the environment by improving the practice of professional engineering and professional geoscience.**

   It would:

   - align organizational responsibilities with individual professional responsibilities, thereby reducing the potential for conflicts of interest between organizational interests and professional standards;

- provide confirmation that organizations are employing professional engineers and/or geoscientists that are competent for all area(s) of practice within an organization; and
- enable APEGBC to establish more specific guidelines for professional practice at the corporate level.

2. **Corporate regulation would increase government and public confidence in the self-regulatory system administered by APEGBC on behalf of the professions.**

   Through a proactive self-determined approach, it would:

   - implement a regulatory mechanism that is used in most Canadian and US jurisdictions for the engineering and geoscience professions, thereby reducing the perception of a regulatory gap in BC's engineering and geoscience professions;
   - increase the quality of professional practice provided by regulated organizations;
   - enable APEGBC to investigate and hold engineering and geoscience organizations accountable in the event of a complaint or suspected misconduct; and
   - increase consistency with other professional sectors in BC where there has been a trend towards corporate regulation (e.g., law, architecture, land surveying, public accounting, as well as a number of medical professions).

3. **Corporate regulation would provide value to organizations and the professionals they employ.**

   It would:

   - increase awareness and support from organizations on the responsibilities of practising professionals;
   - increase awareness and support from organizations on the importance of maintaining good standards for professional practice;
   - establish a mechanism to hold organizations accountable if they are pressuring professionals to act in contravention of the *Act*, Code of Ethics, and Bylaws; and
   - help to increase public confidence and the value that society places on the engineering and geoscience professions.

In summary, the Task Force believes that the key purpose of corporate regulation should be to ensure appropriate organizational oversight over professional practice, rather than continuing to rely solely on the oversight of individual professionals.

While member and stakeholder consultation generally showed strong support for a move toward corporate regulation by APEGBC, a range of concerns were raised. These concerns are summarized in Table 1, as expressed through formal and informal consultation, as well as stakeholder submissions. All of these concerns are considered to be valid, but the Task Force believes that a well thought out corporate regulatory model will be able to address these concerns and provide benefit to the public and the professions at large.

Table 1: Range of Concerns Regarding Corporate Regulation

Concern	Advisory Task Force Comments
Corporate regulation could dilute individual professional responsibility.	• This issue was discussed with several other Canadian jurisdictions that have implemented corporate regulation in engineering and/or geoscience. They stated that their corporate regulatory models do not dilute the responsibility of individual professionals, and in fact support individual professionals in fulfilling their responsibilities (e.g., by requiring their organization's structure, policies and procedures to be conducive to meeting the requirements of the *Act*, Code of Ethics and Bylaws). • However, while corporate regulation should not dilute individual professional practice responsibilities, there may be a risk that corporate regulation could result in a *perception* that individual professional responsibility is reduced. For this reason, it is suggested that measures be taken when implementing a corporate regulatory model to avoid the perception that individual professional responsibility is diminished.
Corporate regulation will not be effective in enhancing public protection due to difficulty in enforcing regulatory requirements (e.g., difficulty in acquiring documents from multi-national companies).	• A regulatory system is not likely to yield intended benefits unless there are effective compliance mechanisms. However, enforcement alone is not the sole mechanism for effective regulation and often only comes into play after an incident or complaint. • Corporate regulatory models in most other Canadian jurisdictions allow investigation of organizations in the event of an incident or complaint. It is acknowledged that there are shortcomings with this enforcement approach[6]. Firstly, waiting until an incident occurs is not initially[7] protective of the public or the environment. Secondly, relying on a complaint-based system has limitations. Most people that would be in a position to make a complaint would be employees of the organization, and these people may be reluctant to 'blow the whistle' on their own organization without knowing how their complaint may play out in an investigation. Effective corporate regulation would provide a means to influence organizational practices before an incident or complaint. • The corporate regulatory model administered by APEGA and APEGBC's voluntary organizational quality management (OQM) program both use audits as a proactive check on organizational compliance with quality management requirements. These audits often identify either minor or major compliance issues. When this occurs, the associations work with the organization to resolve the issue and thereby improve the organization's professional practice. • APEGA recently completed an investigation against a resource development company for a tank roof-support structure that failed

[6] The Task Force knows of no Canadian jurisdiction that has revoked a corporate license to practice as a result of an investigation.

[7] Recognizing that after an incident occurs there may be mitigative or preventative measure put in place which will be more protective in the future.

Concern	Advisory Task Force Comments
	during construction on April 24, 2007, resulting in loss of life and injuries to workers. The investigation considered whether the company as a permit holder with responsibility for approving designs, design changes, and construction plans, as well as meeting building and safety code requirements, did so in a skilled or professional manner. The company voluntarily admitted to unprofessional conduct in its engagement and supervision of contractors performing engineering work and is subject to sanctions.[8] • Development of a corporate regulatory model should include further analysis on enforcement mechanisms, including sanctions that may be imposed on entities that fail to comply, and how enforcement would work with multinational companies. The audit system used by APEGA and APEGBC's OQM Program should be considered for application as well as exploring the potential for whistleblower protection.
Current system is sufficient, therefore corporate regulation is redundant and does not add value to the public or the profession.	• The current regulatory system focuses on individual professional engineers and professional geoscientists, and does not address the significant influence that organizational structure, policies, and culture can have on the practice of the professions. In addition, the current system does not allow investigation of organizations. • Examples were received showing where organizational influence has negatively affected professional practice, including: ○ pressure from employers and managers (which sometimes originates from clients) for quicker or cheaper solutions that can lead to outcomes that are not in the public interest and can contravene professional practice; ○ unwillingness or inability of private sector firms to obtain sufficient fees from clients, or public entities to allocate sufficient resources, to perform project services to a high level (this may give rise to the internal pressure noted above); ○ unwillingness or inability of client firms to award to qualified firms who are not necessarily providing services at the lowest price; ○ organizations that have engineers or geoscientists working in areas that they are not qualified or competent in (e.g., signing off or supervising work outside of their area of expertise); ○ organizations that perform in-house professional work that is reviewed by higher levels of management who are not qualified and leading to greater risks to public interests and/or the environment; and ○ lack of supervision and training of inexperienced workers.

[8] See APEGA News Release: http://www.marketwired.com/press-release/apega-announces-discipline-decision-for-2007-cnrl-tank-roof-collapse-2186249.htm

Concern	Advisory Task Force Comments
	• The current regulatory system places a burden on individual professionals to deal with the above situations on their own; in some cases, leaving professionals to choose between their job and adherence to professional practice standards. A corporate regulatory system administered by APEGBC would provide a mechanism to hold organizations to account if their structures, policies, or culture are in contravention with the *Act*, Code of Ethics and Bylaws. • It can be argued that the current system is not adequate in the eyes of the public, given the reaction to recent incidents such as the Mt. Polley mine tailings dam failure. The profession must be able to demonstrate it can effectively (and proactively) regulate itself to the standard expected by government and the public[9].
Cost and effort for compliance, especially for small organizations and sole-practitioners.	**Fees:** • The Task Force heard concerns around the additional fee burden that could result from corporate regulation. Most of these concerns came from small organizations and sole practitioners, especially if practicing in multiple jurisdictions. • The fees levied on regulated organizations by engineering and geoscience regulatory authorities in Canada range from $150 to $1,186 per year, with an average annual fee of about $500. In the Fall 2016 survey, the following question was posed: "Taking for example the average annual fee of $500 across existing corporate regulatory models for engineering and geoscience organizations in Canada, do you think a fee of this magnitude would be too costly?" Out of 1,295 respondents, 59% of respondents selected "No – this would be a reasonable fee, especially if a sliding scale was applied to give smaller organizations a break" and 20% of respondents stated that "Yes – This fee is too costly." The other 21% were undecided, neutral or provided written comments. The most common theme in the written comments for this question was that the fee structure should vary according to the size and nature of an organization (e.g., the number of professionals employed or the level of revenue). • The Task Force agrees that the fee burden on small organizations and sole-practitioners is an important consideration in the development of a fee structure for corporate regulatory oversight by APEGBC. For this reason, part of the recommendation for corporate regulation is that the costs to regulate organizations be scaled according to the size and nature of the organization. Additionally, it is thought that corporate regulation by APEGBC should adhere to a cost-recovery model (e.g., similar to the OQM Program).

[9] In September 2014, APEGBC conducted a public opinion poll to assess public awareness of APEGBC, and to find which activities are viewed as most important. Of those surveyed, 81% indicated that an important function of APEGBC was to regulate firms to ensure they have qualified professionals and set standards for quality assurance.

Concern	Advisory Task Force Comments

	Effort:
	• The administrative effort in Canadian jurisdictions with a basic corporate regulatory model is low. The basic model typically involves filling out a form that requires answering the following types of questions:
	  ○ What engineering and/or geoscience disciplines are practiced by the organization?
	  ○ Who in the organization has the authority and will accept responsibility for ensuring the practice of the professions can be conducted in accordance with the requirements described in the *Act*, Code of Ethics and Bylaws?
	  ○ Who are the professional engineers, geoscientists, and/or licensees in the organization that will have responsibilities such as responsible direction and personal supervision?
	• A quality management focused regulatory model would require more effort than a basic model. If elements of a quality management focused model are considered for BC, it is important that the additional effort involved in this approach is justified by the additional value it would bring to regulated organizations and the professionals that they employ. Feedback from OQM-certified organizations gives confidence that regulatory requirements can be developed that organizations can meet with a reasonable amount of effort, and that bring commensurate value to the organization's professional practice.
	• For large organizations, special consideration may need to be given to the administrative burden associated with audits and the complexity of implementing a quality management model where there are a large number of practicing professionals across a diversity of practice areas and/or departments.

Lack of confidence that APEGBC can administer a corporate regulatory program effectively and concern that corporate regulation is just a fee grab by APEGBC.	• To date, APEGBC has carried out its duty of regulation of the professions under the *Engineers and Geoscientist Act* of BC. APEGBC operates under a governance structure that supports ongoing delivery of its obligations. The BC Government has the final authority over the *Act* and has not questioned the association's ability to fulfill its regulatory role. • APEGBC is a not-for-profit organization. Fees, which are the primary source of revenues, are in line with fees paid by other professionals in BC and across Canada, and are considerably lower than other regulated professions such as lawyers, doctors, accountants, etc. • APEGBC has successfully implemented a voluntary form of corporate oversight through the Organizational Quality Management program. Despite being voluntary, as of February 2017, the participation in the program included 253 organizations that have been certified and 228 organizations that are going through the certification process. The program includes participating organizations from a wide range of both private and public sectors and has received positive reviews from participating organizations. The success of this program is

Concern	Advisory Task Force Comments
	demonstrated by Engineers Canada's recent partnership with APEGBC to implement a National OQM Pilot Program which involves engineering organizations in 10 different Canadian jurisdictions becoming OQM certified. • The OQM program uses a cost-recovery model, meaning the fees for participating organizations are structured to cover APEGBC's additional costs for administering the program and not raise any additional revenue for the association. It is understood that APEGBC took considerable care to develop a fee structure for participating organizations that would both recover administrative costs and be scaled according to the size of the organization. The Task Force is confident that APEGBC could do the same in the development of a corporate regulatory model.

4. Recommendations on Regulatory Coverage

The Advisory Task Force on Corporate Practice recommends that the following types of engineering and geoscience organizations be subject to corporate regulation:

- Consulting firms providing professional engineering or geoscience services (including incorporated sole practitioners).
- Engineering and geoscience testing and assessment companies (e.g., entities that carry out material testing for the purposes of certification of material properties in order to meet required standards/specification or the confirmation of ore grades/mineral properties).
- Private sector organizations that carry out the "practice of professional engineering or geoscience"[10] for internal or external purposes (e.g., may include private utilities, resource companies, process industries, design-build organizations, construction companies, etc.).
- Public sector organizations that carry out the "practice of professional engineering or geoscience"[11] for internal or external purposes (e.g., provincial government agencies, regional and local governments, crown corporations, public utilities, institutions, etc.).

Further, the Advisory Task Force on Corporate Practice recommends a **more detailed review** of the following types of organizations that practise professional engineering or geoscience to see whether they are already sufficiently covered under other regulatory mechanisms or standards to ensure protection of the public interest and the environment. These include:

- Organizations that design and manufacture custom design engineered products, structures, software, processes or facilities.
- Organizations that design, build and manufacture (off-the-shelf) engineered products (e.g., equipment, vehicles) whose quality and safety are regulated through other existing standards and requirements.
- Organizations that carry out research and development.

The Advisory Task Force on Corporate Practice also recommends **further review** of federal government agencies operating within BC to see whether corporate regulation would be warranted and possible in view of jurisdictional issues.

The Advisory Task Force on Corporate Practice also recommends that **unincorporated sole practitioners** who provide consulting professional engineering and geoscience services should not be subject to corporate regulation, as they are sufficiently regulated as individuals under the existing *Act* and are also subject to APEGBC's Practice Review Program.

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[10] As defined in the *Engineers and Geoscientists Act* (Section 1 (1)) and as copied earlier in this document in Section 1. For example, this would include organizations that execute in-house design services.

[11] Ibid.

Why Regulatory Coverage of these Organizations?

The Task Force considered a range of possible criteria for the selection of organizations which should be included under corporate regulation.

These criteria included a number of factors:

- private versus public organizations;
- internal (i.e., in-house) versus external professional services;
- organizations who employee professionals, but do not carry out professional services; and
- the degree to which organizations providing professional services may directly or indirectly affect the safety, health and welfare of the public, and protection of the environment.

Other factors considered include fairness, consistency and effectiveness. Consideration was also given to the possibility of screening organizations according to the potential implications of their work on the interests of the public and the environment.

Following this review, the Task Force suggests including all private and public organizations that carry out the "practice of professional engineering and geoscience" and then exempting organizations that can demonstrate sufficient coverage by other regulatory mechanisms or requirements. This exemption principle should be the litmus test for deciding whether a particular type of organization should be excluded from corporate regulation. This thought process led to the recommendation to exclude unincorporated sole practitioners from corporate regulation; and, possibly, to exclude other types of organizations where it can be shown they are meeting other regulatory requirements or standards[12] to ensure protection of the public interest and the environment. Candidates for exemptions could include organizations in the manufacturing, medical, high tech (R&D), and/or software and information technology (IT) sectors.

Sole Practitioners

The Task Force makes a distinction between sole practitioners providing professional services who are incorporated and unincorporated. Unincorporated sole practitioners are considered to be adequately regulated as individual practicing professionals subject to the *Act*, Bylaws, and Code of Ethics. A condition for exempting unincorporated sole practitioners was that they continue to be subject to APEGBC's Practice Review Program. Incorporated sole practitioners should be subject to corporate regulation and treated as a consulting firm, if they are providing professional services.

In order for APEGBC to be able to regulate incorporated sole practitioners and exempt unincorporated sole practitioners, the registration system would need some way to distinguish between these two categories of members. In the event that APEGBC ever decides to regulate unincorporated sole practitioners, it would also become necessary to distinguish such members from those members who are not affiliated with an organization, and are not providing professional services.

[12] Some examples of additional requirements include: peer-review of research, NSERC reviews, CSA, IEEE, ASME, FDA, Health Canada, EU MDD, ISO, COR and other certifications.

Public Sector Organizations

Under the *Act*, APEGBC has the obligation to regulate the "practice of professional engineering" and the "practice of professional geoscience." If a public sector organization (i.e., provincial government agencies, regional and local governments, crown corporations, public utilities, etc.) employs staff to carry out professional services as defined by the *Act*, the Task Force believes that they should be subject to corporate regulation regardless of whether the work is for internal or external purposes. During the consultation program, arguments were heard for and against the regulation of public sector organizations. A persistent argument against corporate regulation was that such organizations have additional internal systems and procedures in place to protect the public interest and the environment. In contrast, examples were received of organizational influences having a detrimental effect on practicing professionals and, in some instances, an absence of organizational quality management practices. Fears were also expressed that exempting public sector organizations could lead to disincentives for hiring consulting firms. In the end, the Task Force feels that public sector organizations carrying out professional services should be subject to corporate regulation to ensure minimum standards of corporate practice are established. As noted above, however, federal government organizations operating in BC require further consideration.

The Task Force recommendation considered which public sector organizations are typically exempted by other Canadian jurisdictions,[13] and consistency across the private and public sectors. Additionally, there was a recognition that, while there may be additional checks and balances for some public sector organizations, these requirements do not always align directly to the quality of the practice of the professional services.

Where a public sector organization does not practise professional engineering or geoscience, or that it can be demonstrated that there are additional regulations to adequately protect the public interest and the environment, the Task Force suggests that a public sector organization could be exempted from corporate regulation (consistent with the exemption principle described above for private sector organizations).

Private Sector Organizations that Procure but do not provide Professional Services

The Task Force also considered whether APEGBC should regulate private sector organizations that procure professional services, but do not have staff carrying out professional services. This was in recognition that these organizations' business practices may influence and detract from the quality of the professional services being carried out by other organizations, particularly consulting firms. Regulating these types of organizations would probably lead to improved business practices, and improved professional practice. After review, however, it was determined to be impractical for APEGBC to regulate such organizations, given that their business operates well outside of the *Act* and APEGBC jurisdiction.

[13] Most other Canadian jurisdictions exempt public sector organizations from corporate regulation except: Alberta (if incorporated), Yukon, Government of Northwest Territories, and Nunavut. Territorial governments also subject crown corporations and public utilities to their corporate regulatory models.

5. Other Learnings and Considerations

While the Phase 1 Task Force recommendations are limited to whether APEGBC should pursue corporate regulation, and which types of organizations should be included, there are a number of areas where the Task Force obtained insights that may be beneficial to APEGBC Council should it decide to move forward with evaluating corporate regulatory models. Some of these insights are shared in this section.

Basic versus Quality Management Focused Corporate Models

The Task Force looked into corporate regulatory models from across Canada in order to better understand the possible implications of corporate regulation. Through this jurisdictional scan, it was concluded that the corporate regulatory models across Canada can be grouped into two broad approaches: *basic* and *quality management focused*.

Most Canadian jurisdictions[14] apply a similar model for engineering and geoscience organizations that can be considered the 'basic model.' In order for an organization to receive a permit/certificate in a basic model, it needs to submit an application form and pay a fee. A few jurisdictions also require submission of some supporting documents. Such a basic model can be described as a reactive approach to public protection, in that it assumes good practice is occurring. It provides a disciplinary mechanism in the event of an incident or complaint pursuant to the *Act*, Bylaws and Code of Ethics. The disciplinary system may provide a deterrent to poor practice, but does not actively encourage good practice.

Quality management focused models include all of the functions of the basic model and add requirements and compliance mechanisms to proactively encourage good practice and reduce impacts to the public interest and the environment. Alberta has the only corporate regulation model in Canada that is quality management focused. In order for regulated organizations to obtain a permit to practice from APEGA, they must develop and submit a Professional Practice Management Plan that contains five elements:

1. organizational chart;
2. ethical standards;
3. professional and technical resources;
4. quality control; and
5. professional documents and record retention.

Aside from prescribing that the plan must cover these five elements, APEGA does not prescribe the content for the plan. It is the responsibility of the regulated organization to develop a Professional Practice Management Plan that is appropriate to their industry and practice discipline.

If APEGBC Council decides to move toward corporate regulation, the Task Force suggests that a quality management focused model be a starting point, given the potential enhanced protection to the public interest and the environment, and the potential for added benefit to the regulated organizations and the professionals they employ.

[14] Canadian jurisdictions employing a basic regulatory model include: Saskatchewan, Manitoba, Yukon, Northwest Territories, Nunavut, Ontario, Prince Edward Island, and Newfoundland.

APEGBC Organizational Quality Management (OQM) Program

BC's voluntary OQM Program provides another model for quality management focused corporate oversight. The OQM program certifies participating organizations only after they have developed processes and procedures for quality management that meet the standards established by the program. Processes and procedures are implemented in seven areas:

1. APEGBC practice guidelines;
2. retaining project documentation;
3. checking engineering and geoscience work;
4. independent review of structural designs;
5. use of APEGBC seal;
6. direct supervision; and
7. field reviews.

OQM differs from APEGA's approach in that OQM establishes a minimum bar for quality management that certified organizations must meet.

Both Alberta's corporate regulatory model and the OQM Program use audits to verify compliance. If issues are identified in the audits, the associations enter into proactive discussions to resolve issues and improve professional practice. APEGA finds the audit system to be a useful and effective mechanism for identifying and resolving compliance issues. APEGBC reports that in their experience, OQM audits help organizations identify where quality management practices can be improved, and provides a framework for making those improvements. This helps organizations increase efficiencies and customer satisfaction, reduce risk, and support their professionals in meeting their professional requirements. In addition, auditors frequently receive positive feedback on the audit process from organizations and are regularly asked by organizations to conduct additional audits.

A quality management focused corporate regulation model in BC could be modeled after the approach implemented in Alberta, the OQM Program, or could be a hybrid model that incorporates elements of both the Alberta model and the OQM Program.

The Task Force believes that the OQM program[15] may offer a good complementary framework in the development and review of viable quality management focused regulatory models, if Council decides to proceed with further evaluation of corporate regulation.

Practice Review Program

In recognition of the organizational commitment to quality management, individual professional employees within an OQM certified organization are exempted from APEGBC's Practice Review Program, except in cases where this is directed by the Investigation Committee as a result of a complaint.

The Practice Review Program will need to be altered to reflect the corporate regulation program that APEGBC ultimately decides to proceed with.

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[15] It should be noted that if an OQM framework were to be investigated as a basis of a quality management focused regulatory model, further analysis would be required to take into account non-structural design work which, to date, has been an emphasis of the independent review component of the OQM program.

If APEGBC proceeds with a quality management focused regulatory model, the Task Force makes the following suggestions regarding the Practice Review Program:

- individual professional employees of regulated firms should be exempt, similarly to what is presently done through the OQM program;
- it should continue to review unincorporated sole practitioners, as this would be the only form of regulatory oversight that unincorporated sole practitioners would be subject to; and
- it should continue to review practicing professional employees of organizations that are not covered by corporate regulation, or are exempted from corporate regulation.

Definition of the Practice of Professional Services

The Task Force supports APEGBC better defining the "practice of professional engineering" and the "practice of professional geoscience" in light of the growth of non-traditional engineering disciplines such as software engineering, IT and research and development. This would be particularly relevant for determining whether certain organizations within these disciplines should be subject to corporate regulation to ensure consistency, fairness, and protection of the public interest and the environment.

Other Quality Management Business Practices

Through the Task Force review of corporate regulation, a number of ideas were put forward that would potentially improve the quality of professional services delivered. While many of these are considered good ideas, not all of them were within the Task Force mandate, therefore it was not possible to directly incorporate them all in the Phase 1 Task Force recommendation.

A key theme is that provision of high quality services requires sufficient resources and/or budget. If APEGBC is serious about supporting improvements to professional practice, this is an area that should be subject to further attention.

Some ideas that were put forward were:

a. qualifications based selection (QBS) for procurement of consulting engineering services;
b. standardized client – consultant agreements; and
c. change to a proportional liability system from the present joint and several liability system in BC.

It is suggested that APEGBC work with ACEC-BC and other organizations in an effort to make progress on these issues.

Member Feedback during the Consultations

Almost all feedback received during member consultation was informative, constructive and helpful to the Task Force. However, a small number of respondents used the opportunity to express a lack of confidence in APEGBC. This response suggests that APEGBC should continue to demonstrate the necessity to implement appropriate controls on professional practice in order to maintain its privilege of self-regulation.

Attachments

Attachment 1 – Advisory Task Force on Corporate Practice Terms of Reference

Attachment 2 – Discussion Paper

- **Appendix 1: Jurisdictional Scan**

Attachment 3 – Consultation Summary Report

- **Appendix 1: Detailed List of Consultation Activities**
- **Appendix 2: Summer 2016 Survey Results**
- **Appendix 3: Fall 2016 Survey Results**
- **Appendices 4 – 6 are CONFIDENTIAL**

TERMS OF REFERENCE

1. Name:
Advisory Task Force on Corporate Practice

2. Type/Reporting Relationship:
2.1 Task Force

2.2 Reporting Relationship:
The Task Force is appointed by Council and reports to Council.

3. Purpose:
Through consultation with members and stakeholders, to examine the issue of regulating companies, organizations, and sole proprietorships that provide professional engineering and geoscience services, and to deliver recommendations to Council on whether APEGBC should pursue regulatory authority in this area.

4. Authorities of the Committee/Task Force:
The Task Force is authorized to provide advice, guidance, and recommendations to APEGBC Council. Recommendations to Council will be based on a majority vote of all Task Force members.

5. Function/Deliverables:
5.1 Implement the following collaborative, three-phased approach to evaluate the regulation of engineering and geoscience organizations employing professional engineers, professional geoscientists, and licensees including sole proprietorships :

5.1.1 Phase 1 – Strategic Consultation and Recommendation

- Guide consultation and consider member and stakeholder feedback in order to develop an informed opinion on whether APEGBC should pursue regulatory authority for corporate practice.
- Define the types of entities, if any, that should be subject to APEGBC regulatory oversight.
- Document options identified through the consultation process that could inform a potential approach to corporate practice oversight.
- Upon completion of Phase 1, the Task Force will provide a recommendation to Council on whether to pursue regulatory authority for corporate practice. Council may consider the recommendation and determine how to proceed.

5.1.2 Phase 2 (Subject to Council approval) – Recommend a Model for Corporate Practice Oversight

- Further develop options for corporate practice oversight.
- Consider regulatory measures that would not be detrimental to OQM but compliment and support it.

- Review and comment on the current authority in the Act to regulate corporate practice.
- Develop a preliminary regulatory model for corporate practice oversight and determine whether further consultation is required.
- Obtain a legal review of the preliminary regulatory model, and a suggested legislative framework to support the proposed model.
- Update the proposed regulatory model.
- Make a recommendation to Council on the regulatory model, including legislative framework.

5.1.3 Phase 3 (Subject to Council Approval) – Develop a Business Plan

- Identify resource requirements to implement the regulatory model approved by Council.
- Develop a business plan with timelines.

6. Resources:

6.1 The Task Force will be allocated one-time funding of $20,000 to carry out its purpose.

7. Membership:

7.1 A maximum of 19 members, with representation from the following groups/sectors:

- ACEC-BC
- AMEBC
- Non-ACEC-BC consulting firm
- OQM-certified organization
- Investigation or Discipline committee
- Professional Practice committee (Council representative)
- Council member sitting as a government appointee (Council representative)
- Manufacturing industry
- Hi-tech industry
- Mining industry
- Municipal government
- Provincial government
- Sole practitioners
- Small organization with less than five APEGBC Professionals
- A major consumer of engineering or geoscience services
- A member-at-large

7.2 If APEGBC members are not available as representatives from the sectors above, non-members may be appointed.

7.3 Two members of the Task Force must be current members of Council.

8. Term of Office:

8.1 The terms of office are until February 2018 or later as directed by Council.

9. Selection of Officers:

9.1 The Chair is appointed by Council.

10. Quorum:

10.1 Majority of members.

11. Frequency of Meetings:

11.1 Meetings are at the call of the Chair.

12. Conduct of Meetings:

12.1 The Task Force may meet in person and/or by telephone conference, webcast or other electronic communications media where all members may simultaneously hear each other and participate during the meeting. Generally the latest edition of Robert's Rules should be adopted for the conduct of meetings.

12.2 On occasion, the Task Force Chair may communicate with all members by e-mail and, with supporting information, propose and call for a consent resolution. At his or her discretion, the Task Force Chair may or may not allow limited e-mail discussion on the matter. Beyond this, Task Force members have the option of responding by moving, seconding or supporting the motion, or requesting that it be considered further at a meeting of the Task Force. A consent resolution is deemed to have been achieved if there are no negative votes or calls for in-person discussion, and the number of support votes are equal to or greater than the number required for a quorum. In the case where a member so requests, the motion is not carried, but instead may be brought forward for consideration at a subsequent meeting of the Task Force. (In the case of an urgent matter, this may occur at a special meeting conducted by telephone where the normal requirements for a quorum will prevail.) Any motion so carried is considered to take effect immediately, and is ratified at the subsequent Task Force meeting and recorded in the minutes of that meeting.

Information circulated and discussed at meetings is non-confidential unless communicated otherwise.

13. Minutes:

13.1 Minutes, notes or recording of decisions are the responsibility of staff support.

14. Periodic Reporting and Review of Terms of Reference:

14.1 The Task Force shall review its Terms of Reference on establishment and shall recommend any changes to the Terms of Reference (through the Governance Committee) and set out a Work Plan with budget implications for approval.

15. Staff Support:

Director, Professional Standards and Development and Director, Communications and Stakeholder Engagement

Approved by Council: October 15, 2015 (CO-15-94)

Revised and Approved by Council: June 17, 2016 (CO-16-58)

APEGBC Discussion Paper

Published September 26, 2016

Should organizations that practise engineering and geoscience in BC be regulated?

Advisory Task Force on Corporate Practice Discussion Paper

Professional Engineers and Geoscientists of BC

Advisory Task Force on Corporate Practice:

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Prepared for: Consultation with APEGBC Members and Stakeholders
Prepared by: Advisory Task Force on Corporate Practice
Version date: September 26, 2016

Should organizations that practise engineering and geoscience in BC be regulated?

Advisory Task Force on Corporate Practice - Discussion Paper

Summary Highlights

Mt. Polley and Provincial Government interest in corporate regulation

Questions around the lack of regulation of organizations that practise engineering and geoscience arise when major incidents occur involving our professional practice. After the Mount Polley Dam incident, the BC Ministry of Energy and Mines contacted the Association of Professional Engineers and Geoscientists of BC (APEGBC) to request a summary of issues related to the potential regulation of companies that carry out professional engineering and geoscience. Government expressed strong support in APEGBC's evaluation of this issue while it considers the possibility of developing changes to regulation on its own prerogative.

APEGBC Council initiative – examination of corporate practice

Because it is the duty of APEGBC to uphold and protect the public interest respecting the practice of professional engineering and the practice of professional geoscience (*Engineers and Geoscientists Act*, Section 4.1 (1)(a)), and further motivated by this incident, APEGBC's Council initiated an examination of corporate practice and corporate regulation. **To maintain legitimacy and credibility as self-regulating professions, APEGBC's Council decided that it was in the best interest of BC's engineering and geoscience professions to be proactive on these issues and to take the lead in examining whether APEGBC should pursue regulatory authority over corporate practice.**

An Advisory Task Force of APEGBC members representing a broad range of disciplines, organizations, and industries was established to examine corporate practice and corporate regulation. **We, the task force, have been asked by APEGBC's Council to make a recommendation by March 2017 on whether APEGBC should pursue regulatory authority over corporate practice, and if so, to define the types of organizations that should be subject to regulation.**

Due to the importance of this issue to APEGBC members and stakeholders, we have begun an evaluation and consultation process. We recently concluded a preliminary round of consultation, and are undertaking a review of the potential pros and cons of various corporate regulatory models, and other alternatives, which may be preferable to enhance public protection, some of which are summarized here. **The release of this discussion paper starts the second round of consultation with members and stakeholders.**

What is Corporate Practice and Corporate Regulation?

The term **corporate** in this document and initiative is used in a broad sense to refer to *all organizations* in both the private and public sectors, including any type of legal entity formed for business purposes (e.g., corporations, partnerships, sole proprietorships) and any type of public entity (e.g., municipalities, crown corporations, ministries). The term **corporate practice** refers to the provision of engineering or geoscience services and products by organizations. The term **corporate regulation** refers to the licensing and regulation of organizations authorized under legislation.

Corporate regulation—a common regulatory tool used by other jurisdictions and professions

Regulation of corporations by legislated authorities is commonly used by governments across Canada and the US to protect the public interest in the practice of numerous professions. **Every Canadian province and territory regulates engineering and geoscience organizations except BC and Quebec. Likewise, BC corporations practising architecture, land surveying and public accounting are regulated under their respective professional Acts.** In addition, most US northwest states regulate engineering organizations. The fact that so many other jurisdictions and professions regulate corporate practice raises questions for the engineering and geoscience professions in BC:

Why is a regulatory tool that is used by many other engineering and geoscience regulatory authorities not being used in BC?

Can engineering and geoscience in BC remain credible self-regulating professions without corporate regulation?

BC's history on corporate regulation

The history of this issue in BC does not provide a clear response to these questions. Early APEGBC Council discussions on corporate regulation began with the Closkey Commission, which reviewed the Station Square Mall collapse in Burnaby in 1988. **The commission recommended, in part, that corporations that provide professional engineering services to the public should be required under the *Act* to be registered; and that such organizations should face deregulation for unethical, unprofessional or incompetent practice.** The commission stated: "Facing the prospect of decertification of a firm as a whole, the individual members within the organization will have a strong incentive to ensure that thorough internal checks and high standards of service are provided." In 1991, following an in-depth review of the Closkey Commission and its recommendations, APEGBC voiced its support for the commission's recommendations and requested amendments to the *Act*.

In 1993, the Province amended the *Act* to introduce Certificates of Authorization (CoA)—a licence allowing companies to provide professional engineering services to the public—however, this single amendment only partially accomplished the goal of the recommendations. A second amendment to prohibit practising without a CoA, was not included due to a dispute over what type of companies or other legal entities would be required to hold CoAs.

In 1996, APEGBC engaged in extensive consultations and recommended to the BC government that, at a minimum, corporations, partnerships or other legal entities should be prohibited from practice unless they held a CoA specific to the following:

- Consulting engineering or consulting geoscience;
- Designing and manufacturing custom design engineered products, structures, processes or facilities;
- Engineering and/or geoscience testing and assessment.

In 2002, after discussions with stakeholders, the BC Government stated that they would not implement APEGBC's recommendations. Since then, the issue of corporate regulation continues to be raised by members and organizations that look to APEGBC to protect the public. In September 2014, APEGBC conducted a public opinion poll to assess public awareness of APEGBC, and to find which activities are viewed as most important. **Of those surveyed, 81% indicated that an important function of APEGBC was to regulate firms to ensure they have qualified professionals and set standards for quality assurance.**

Organizational influence on the professions

Corporate regulation is used by other jurisdictions, and by other professions in BC, because the practice of a profession can be influenced not only by the actions and judgments of the individual professionals, but also by their employer organizations, through corporate policies and procedures. Organizational influence on professional practice can be either positive or negative.

As mentioned above, APEGBC regulates individual professional engineers and professional geoscientists, but currently has no regulatory authority over organizations that practise engineering and geoscience. **These organization's policies can promote adherence to the association's Code of Ethics and Bylaws, or could do the opposite and prioritize other objectives.** An organization that is prioritizing other objectives at the cost of professional practice can put professionals in a difficult position and public protection may be compromised. Moreover, individual professionals have little recourse in this situation.

The key purpose of corporate regulation is to have oversight over the organizational level of influence on the profession, rather than relying solely on oversight of individual professionals. **Corporate regulation does not alter the responsibility of individual professionals, but layers more responsibility for organizations to ensure that organizational policies and procedures are in line with the *Act*, Code of Ethics and Bylaws.** This could align the responsibilities of organizations and individual professionals. **Furthermore, corporate regulation means that organizations are subject to investigation in the event of an incident or complaint.**

Potential benefits of corporate regulation

Just as APEGBC regulates individual professionals and sets the minimum bar that professionals must meet, corporate regulation would set a minimum bar for organizations. **Benefits that may be gained from corporate regulation depend on the minimum regulatory requirements set, which organizations are regulated, and what type of compliance activities are taken to ensure requirements are being met.** Possible benefits include:

1. **Enhanced public protection**:
   - Requiring or encouraging the owners and/or senior executives of an organization to maintain an organization in which the practice of the professions can be conducted in accordance with the *Act*, Code of Ethics, and Bylaws; and,
   - Ensuring organizations practising engineering and/or geoscience have at least one qualified professional engineer, geoscientist or licensee on staff.

2. **Increased public and government confidence in the professions and APEGBC's self-regulatory system through**:
   - Implementing a regulatory tool that is used in most other jurisdictions for the engineering and geoscience professions;
   - Increased consistency and quality of professional services across all organizations employing APEGBC professionals; and,
   - Providing APEGBC the power to investigate engineering and geoscience organizations in the event of a complaint or incident where misconduct is suspected.

3. **Added-value for individual professionals through:**
   - Increasing support for the responsibilities of professionals from employers;
   - Establishing a mechanism to hold organizations accountable if they are pressuring professionals to act in contravention of the *Act*, Code of Ethics, and Bylaws; and,
   - Raising public confidence and commensurately, the value society places on the practice of engineering and geoscience.

In a survey of APEGBC members that we conducted in July and August 2016:

Out of a total of 312 respondents, ***70%*** *of respondents indicated that they see* ***benefits*** *from corporate regulation for either the public and/or the professions, while* ***30%*** *of respondents indicated that they see no benefits from corporate regulation.*

76% *of respondents also indicated that they have* ***concerns*** *with the potential effects of corporate regulation and how it would be implemented.*

Key concern: dilution of individual professional responsibility

A key concern raised by members and stakeholders is that by extending regulation to organizations for the practice of engineering and geoscience, an individual professional's responsibility may be diluted, negatively affecting protection of the public. We inquired with several other jurisdictions that have implemented corporate regulation, and their responses indicate that corporate regulation does not dilute the responsibility of individual professionals, and in fact supports individual professionals to fulfill their responsibilities.

However, while corporate regulation may not change individual professional responsibilities in legal terms, we do recognize that there is a risk that corporate regulation could result in a *perception* that individual professional responsibility is reduced. As we investigate, we are taking note of what factors in the various corporate regulatory models may contribute to the perception of reduced individual professional responsibility and will report our findings.

Key concern: implementation costs

Another key concern for members and stakeholders is the cost of implementing corporate regulation and particularly whether it would provide value-added benefits to the public and the professions to justify the cost and effort. Professionals working in small organizations have especially voiced concern about being disproportionately affected by any additional fees and regulatory requirements. Note that the existing annual fees levied on regulated organizations by engineering and geoscience regulatory authorities in Canada range from only $150 to $1,186, with an average annual fee of about $500. Several regulatory authorities also have fee structures that are scaled to the size of organizations (e.g., number of professionals on staff). While it is too early to estimate what the fee structure would look like in British Columbia, the average fee provides a point of comparison alongside the potential benefits of corporate regulation for the public, professions and individual professionals.

Key activity of Task Force: Cost-benefit analysis

Whether the benefits outweigh the drawbacks for corporate regulation is an active discussion within the Advisory Task Force. Consultation with members and stakeholders along with a jurisdictional scan of regulatory models and an assessment of these regulatory models is informing this discussion. **We are exploring whether an approach for corporate regulation exists that can derive benefits for public protection and the professions, including the individual professional, *and* address the issues and concerns in regard to how corporate regulation may be implemented. Our consultation and evaluation focuses on our two mandated questions:**

1. Should APEGBC seek regulatory authority over corporate practice?
2. What types of organizations, if any, could be subject to regulatory oversight?

We look forward to actively reviewing members' and stakeholders' feedback. More discussion and analysis of these issues can be found in the body of this discussion paper. **We are also asking for feedback through an online survey that is open from Oct. 4, 2016 to Nov. 30, 2016, as well as other consultation opportunities listed on the APEGBC website at apeg.bc.ca/corporatepractice.**

Should organizations that practise engineering and geoscience in BC be regulated?

Advisory Task Force on Corporate Practice - Discussion Paper

Table of Contents

Should organizations that practise engineering and geoscience in BC be regulated?

Advisory Task Force on Corporate Practice - Discussion Paper

1. Introduction

The Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) is the regulatory body that oversees the practice of professional engineering and geoscience. It is the duty of APEGBC to uphold and protect the public interest respecting the practice of professional engineering and the practice of professional geoscience (*Engineers and Geoscientists Act*, Section 4.1 (1)(a)). In the fall of 2015, APEGBC's Council established an Advisory Task Force of APEGBC members to lead an examination of corporate practice and corporate regulation. The task Force is representative of a broad range of disciplines, organizations and industries. We, the task force, have been asked by APEGBC's Council to make a recommendation by March 2017 on whether APEGBC should pursue regulatory authority over corporate practice and if so, to define the types of organizations that should be subject to regulation.

We understand the importance of this issue to APEGBC members and stakeholders and we are engaging in a thorough evaluation and consultation process to inform our recommendations to APEGBC's Council. This discussion paper provides an update to APEGBC members and stakeholders on five key activities that we are undertaking to inform our recommendation:

- Consultation with members and stakeholders (Section 2);
- Documentation of the drivers for examining corporate practice and corporate regulation (Section 3);
- Identification of the key considerations, concerns, and benefits associated with regulating corporate practice (Section 4);
- Jurisdictional scan of existing corporate regulatory models (Section 5 and Appendix 1); and,
- Assessment of options for corporate practice (Section 6).

We invite feedback from all APEGBC members and stakeholders on the issues discussed in this document. We encourage you to provide feedback between October 4, 2016 and November 30, 2016 through the online survey, accessible through apeg.bc.ca/corporatepractice, or by sending an email to corporatepractice@apeg.bc.ca.

What is Corporate Practice and Corporate Regulation?

The term **corporate** in this document and initiative is used in a broad sense to refer to *all organizations* in both the private and public sectors, including any type of legal entity formed for business purposes (e.g., corporations, partnerships, sole proprietorships) and any type of public entity (e.g., municipalities, crown corporations, ministries). The term **corporate practice** refers to the provision of engineering or geoscience services and products by organizations. The term **corporate regulation** refers to the licensing and regulation of organizations authorized under legislation.

Corporate regulation would likely involve the prohibition of organizations practising engineering and geoscience unless they have a licence from a regulating authority (e.g., APEGBC), or are a type of organization that is not required to have a licence. For most jurisdictions in Canada, such licences mean that regulated organizations need to comply with the engineering or geoscience legislation of the jurisdiction and the Code of Ethics and bylaws issued by the regulating authority. Across jurisdictions, there are also a variety of other requirements and responsibilities of licence holders (for more information, see Appendix 1 - Jurisdictional Scan of Corporate Regulation Across Canada).

2. Consultation

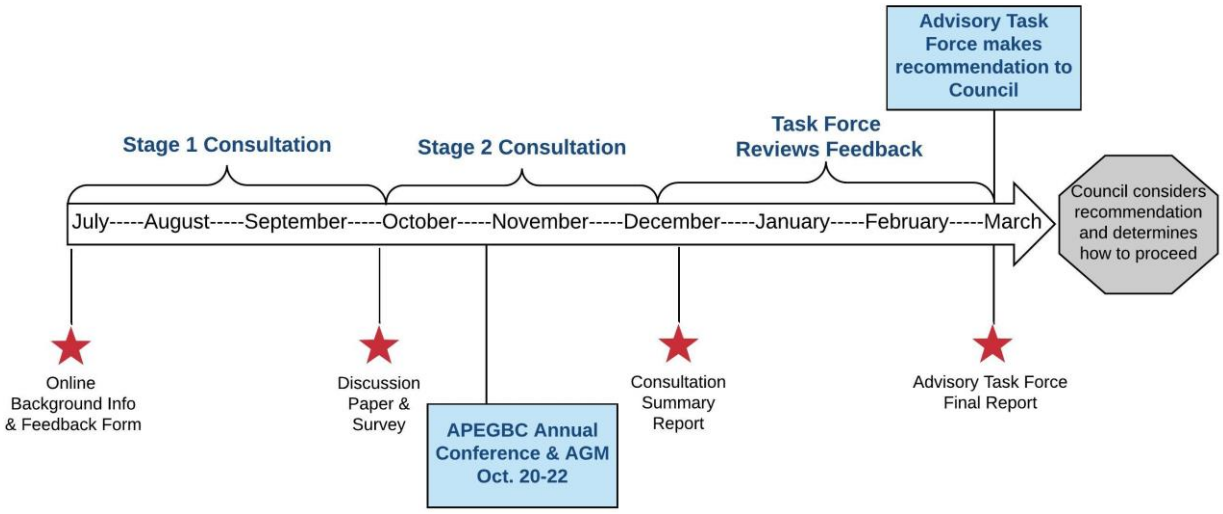
Input from members and stakeholders is key to informing our recommendations. Consultation is being conducted in two stages (Figure 1). **Stage 1** (June to August 2016) focused on early input from members and stakeholders to understand the issues and help guide the development and assessment of different regulatory models to explore during the review. **Stage 2** (Oct. 1, 2016 to November 30, 2016) will focus on more detailed input from members and stakeholders on their preferences for non-regulatory and regulatory options for corporate oversight.

Stage 2 includes:

- An online survey for members and stakeholders to provide feedback on the issues identified in this discussion paper;
- A webinar and in-person presentations to member and stakeholder groups around the province;
- In-person presentation at the Annual Conference on Oct. 21, 2016 in Victoria, BC;
- Outreach to stakeholder groups;
- Articles in APEGBC's magazine and Enews; and
- Feedback opportunities via email and phone.

A consultation summary report will be released in January 2017 that summarizes the key themes and issues heard through stage 1 and stage 2 consultation activities. The consultation summary report will be made publicly available through the Corporate Practice webpage. We will review feedback, undertake additional information gathering and analysis as necessary, and will make recommendations to APEGBC's Council in March 2017. At this time, the Chair of the Advisory Task Force will release a final report summarizing the reasons for our recommendations and supporting information.

Figure 1: Consultation Timeline – Advisory Task Force on Corporate Practice



3. Why corporate regulation?

Regulation of corporate practice is a common tool used by governments across Canada and the US to protect the public interest with respect to the practice of the profession. Every province and territory in Canada regulates engineering and geoscience organizations under a mandatory legislated authority except BC and Quebec. Every state in the Northwest United States except Oregon regulates engineering organizations. BC corporations practising architecture, land surveying and public accounting are regulated under their respective professional Acts.

Corporate regulation is used by other jurisdictions and by other professions in BC because the practice of a profession is believed to be influenced at two fundamental levels:

1. At an individual level, through the actions and judgments of individual professionals; and
2. At the organizational level, through policies and procedures implemented by organizations that employ professionals.

APEGBC has regulatory authority over individuals practising engineering and geoscience; it maintains standards of entry and practice for individual professionals, and has a series of proactive programs directed at individual professionals to support their practice. The association has no similar regulatory authority over engineering and geoscience organizations, even though policies and procedures implemented by these organizations have an influence on professional practice. Similarly, APEGBC has regulatory authority to audit and investigate individuals, but has no authority to audit or investigate organizations when concerns are raised.

3.1 Organizational influence

An ongoing discussion within the Advisory Task Force is on the substance and strength of the organizational influence on professional practice. Organizational influence can have either a positive or negative effect on professional practice. For example, an organization's policies and procedures can encourage and promote adherence to the association's Code of Ethics and Quality Management Bylaws, or they could do the opposite and prioritize other objectives above professional practice standards. Where corporate practices or objectives conflict with APEGBC's Code of Ethics and Bylaws, individual professionals may be put in a difficult position. Moreover, individual professionals have little support or recourse because organizations are not regulated by APEGBC.

While organizational influence *can* have a negative impact on professional practice, we are interested in hearing from members and stakeholders on the extent to which this is actually happening. In a survey undertaken in July and August 2016, we asked whether respondents were aware of issues occurring because of a lack of regulatory oversight of organizations that practise engineering and geoscience.

*Out of a total of 312 survey respondents, **56%** of respondents indicated that they were aware of issues that indicated an organizational influence was having a negative impact on professional practice.*

This includes issues such as:

- Lack of support from an employer for doing what is necessary for proper professional practice;
- Cutting corners with respect to professional practice for the benefit of organizational interests;

- Difficulty balancing responsibilities as a professional engineer/geoscientist/licensee and responsibilities as an employee of a business/organization;
- Hiring engineers or geoscientists that are not qualified for the work;
- Insufficient supervision and training of inexperienced workers;
- Lack of awareness of senior staff of quality assurance procedures.

***44%** of survey respondents indicated that they have never experienced or seen organizational influence that diminishes the quality of individual professional practice.*

3.2 Public and government opinion

In August 2014, APEGBC conducted a public opinion poll through Insights West which asked which APEGBC activities are most important to the public. Eighty-one percent of those surveyed indicated that they believed an important function of APEGBC was to "regulate firms to ensure they have qualified professionals and standards for quality assurance."

Recent discussions between APEGBC and the Provincial Government also indicate that government sees the lack of corporate regulation as a potential regulatory gap. APEGBC briefed the Advisory Task Force that in June 2015, the BC Ministry of Energy and Mines contacted APEGBC to request a summary of issues related to the potential regulation of organizations that carry out professional engineering and geoscience activities. Government had been exploring this option as a possible outcome of the Mount Polley Mine tailings dam incident and has expressed significant interest in APEGBC's evaluation of this issue.[1]

The engineering and geoscience professions are permitted to self-regulate at the discretion of the BC government, who are accountable to the general public. As self-regulation is a privilege, not a right, APEGBC needs to seriously consider public and government expectations regarding potential regulatory gaps.

4. Key considerations

In discussions with stakeholders and members, we have heard many questions regarding the potential benefits and drawbacks of corporate regulation and have heard several issues and concerns around how corporate regulation may be implemented. The questions, issues and concerns consistently raised by members and stakeholders are discussed below.

4.1 What are the benefits of corporate regulation?

Just as APEGBC regulates individual professionals and sets a minimum bar that these professionals must meet to practise in BC, corporate regulation would set a minimum bar that organizations practising engineering and geoscience would have to meet. The benefits that could be gained from corporate regulation depend on the regulatory requirements, which organizations are regulated, and what type of compliance activities are taken to ensure requirements are being met.

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[1] Note: if regulation of corporate practice was in place in BC at the time of Mount Polley tailings dam incident, APEGBC would have had the regulatory authority to investigate the companies involved in the incident in addition to the individual APEGBC members involved. As well, these companies would have been required to follow the Code of Ethics and Quality Management Bylaws.

The three major areas for potential benefits include:

1. **Enhanced public protection through regulatory requirements such as:**
   - Requiring or encouraging the owners and/or senior executives of an organization to maintain an organization in which the practice of the professions can be conducted in accordance with the *Act*, Code of Ethics, and Bylaws; and,
   - Ensuring organizations practising engineering and/or geoscience have at least one professional engineer, geoscientist or licensee on staff.

2. **Increased public and government confidence in the professions and the APEGBC self-regulatory system through:**
   - Implementing a regulatory tool that is used in most other jurisdictions for the engineering and geoscience professions;
   - Increased consistency and quality of professional services across all organizations employing APEGBC professionals; and,
   - Providing APEGBC the power to investigate engineering and geoscience organizations in the event of a complaint or incident where misconduct is suspected.

3. **Added-value to individual professionals through:**
   - Increasing awareness and support for the responsibilities of professionals from employers;
   - Establishing a mechanism to hold organizations to account if they are pressuring professionals to act in contravention of the *Act*, Code of Ethics, and Bylaws; and
   - Raising public confidence and commensurately, the value society places on the practice of engineering and geoscience.

*In the survey conducted by the Advisory Task Force in July and August 2016, **70%** of respondents indicated that they see benefits to corporate regulation for either the public and/or the profession, while **30%** of respondents indicated that they see no benefits to corporate regulation.*

We will continue to consult with members and stakeholders on the potential benefits of corporate regulation. The varying benefits of different corporate regulatory models are also being examined through a jurisdictional review of corporate regulatory models and an options assessment (see section 6 – Corporate Practice Options).

4.2 Which organizations would be regulated?

APEGBC's Council has asked the Advisory Task Force to make recommendations on which types of organizations, if any, should be subject to APEGBC regulatory oversight. We have received some feedback on this issue from consultation to date and hope to receive additional feedback in upcoming consultation activities.

Organizations practising engineering and geoscience in BC differ widely in size and type. In BC, there are many sole practitioners and small engineering and geoscience companies as well as large organizations employing hundreds of professionals. In the private sector, there are companies that practise only in BC and there are multi-national companies where BC represents only a small portion of where they work. There are consulting companies that provide engineering and geoscience services to external clients and there are companies that practise engineering and geoscience for internal purposes only (e.g., engineered product companies, utilities, resource companies). In the public sector, engineering and geoscience is practised by municipalities, crown corporations and provincial agencies.

There are a number of factors to consider with respect to size of organization. The area of sole practitioners is a particular challenge. If a system of corporate oversight included sole practitioners, there could be concern about "double regulation." The individual is already licensed by APEGBC and any new oversight may be deemed a second level of regulation. It may also be noted that there is no organizational influence on a sole practitioner.

Small organizations may be concerned that there would be an unfair burden placed on their company compared to a large organization.

The type of organization is also an important consideration. It may not be fair to single out some types of organizations for a new regulatory system. For example, would the system best be limited to a small number of organizational types such as consultants, or should the system apply to the full spectrum of organizations practising engineering and geoscience including companies that practise for internal purposes only and public sector organizations?

4.3 Impact on individual professional responsibility

We have heard concerns that by giving organizations additional responsibility for the practice of engineering and geoscience, the professional's individual responsibility could be diluted, which would negatively affect the protection of the public. We have inquired about this issue with several other jurisdictions that have implemented corporate regulation. Their perspective is that corporate regulation does not dilute the responsibility of individual professionals and in fact supports individual professionals in fulfilling their responsibilities (e.g., by requiring their organization's structure, policies and procedures to be conducive to meeting the requirements of the Code of Ethics and Bylaws).

However, while corporate regulation may not change individual professional responsibilities in legal terms, we do recognize that there is a risk that corporate regulation could result in a *perception* that individual professional responsibility is reduced. As we investigate, we are taking note of what factors in the various corporate regulatory models may contribute to the perception of reduced individual professional responsibility and will report our findings.

4.4 Do the benefits outweigh the costs?

We have received questions around the effectiveness of corporate regulation and whether it would provide enough value-added benefits to the public and the professions to justify the cost and effort. Corporate regulation would involve some additional effort by regulated organizations to meet the requirements and fulfill the responsibilities for the regulation. Implementing corporate regulation would also put additional costs on APEGBC to administer the regulatory program. These costs would need to be offset or recovered through some means, such as licensing fees for regulated organizations.

Whether the benefits outweigh the drawbacks for corporate regulation is an active discussion within the Advisory Task Force. Consultation with members and stakeholders along with a jurisdictional scan of regulatory models and an assessment of these regulatory models is informing this discussion. A key question is whether an approach for corporate regulation exists that can derive benefits for public protection *and* address the issues and concerns in regard to how corporate regulation may be implemented. For more information on the potential benefits, costs and effort associated with corporate regulatory models, see Section 6 – Corporate practice options.

Discussion Questions

Do you think a minimum bar is needed for organizations that practise engineering and geoscience in BC? Why or Why Not?

What do you think needs to be considered by the Advisory Task Force in regard to corporate regulation?

5. Corporate regulation in BC and across Canada

The Advisory Task Force is undertaking a review of corporate regulatory models for the engineering and geoscience professions in other jurisdictions and for other professions in BC. The purpose of this review is to learn about the different approaches for designing and implementing corporate regulation and to learn about the advantages and disadvantages.

In BC, other professions that regulate organizations include architecture, land surveying, public accounting, as well as a number of the medical professions. The Law Society of BC has also recently been granted the authority by the Provincial Government to regulate law firms and is currently undergoing consultation on a proposed approach for corporate regulation.

Every province and territory in Canada regulates engineering and geoscience organizations under a mandatory legislated authority except BC and Quebec. We have reviewed 11 of these corporate regulatory models to identify similarities and differences in approaches across Canada with respect to regulatory coverage, regulatory requirements and responsibilities, compliance mechanisms and fee structures (see Appendix 1 for summary).

5.1 Past attempts to implement corporate regulation in BC

Subsequent to the roof collapse on April 23, 1988, at the Save-On-Foods store in Burnaby, BC, the Provincial Government appointed a commissioner (the Closkey Commission) to inquire into the incident. The Closkey Commission Report included 17 recommendations with recommendations 5 and 6 related to the registration of engineering firms. The commission stated "Facing the prospect of decertification of a firm as a whole, the individual members within the organization will have a strong incentive to ensure that thorough internal checks and high standards of service are provided." As a result, APEGBC established a Special Review Committee which developed a response to the recommendations in the Closkey Commission Report. The report of the Special Review Committee, published in the BC Professional Engineer in June 1991 (APEGBC's professional journal), recommended that:

> *Companies, partnerships, firms and other organizations that provide professional engineering services must be registered under the* Engineers and Geoscientists Act *and that the* Engineers and Geoscientists Act *be amended accordingly and that they must face deregistration for incompetence, negligence or unprofessional conduct.*

A letter ballot was issued to members in 1991 and 28% of the membership participated. The results of the letter ballot were:

- 92.8% voted in favour of the following recommendation: "organizations that provide professional engineering services must be registered"; and,

- 93.2% supported the recommendation that "organizations that provide professional engineering services must face deregistration for incompetence, negligence, or unprofessional conduct."

In 1993, Section 10.1 (now Section 14) entitled "Issue of Certificates of Authorization" (CoA) was introduced into the *Engineers and Geoscientists Act*.

At the time the CoA was proposed, the association also proposed an addition to Section 18, Prohibition on Practice. This provision would have made it illegal for companies to practise professional engineering or geoscience unless they held a CoA. The amendment to this section was not included when Section 10.1 was added to the *Act* in 1993. The recommended provisions regarding the prohibition on practice for engineering/geoscience companies was not included because of a dispute over what type of companies or other legal entities would be required to hold CoAs.

In 1996, APEGBC engaged in extensive consultations and recommended to the BC government that, at a minimum, corporations, partnerships or other legal entities should be prohibited from practice unless they held a CoA specific to the following fields:

- Consulting engineering or consulting geoscience;
- Designing and manufacturing custom design engineered products, structures, processes or facilities;
- Engineering and/or geoscience testing and assessment.

In 2002, after discussions with stakeholders, the BC Government stated that they would not be implementing APEGBC's recommendations.

5.2 Implementation of voluntary program to certify engineering and geoscience organizations

In the absence of corporate regulation, APEGBC established a voluntary certification program for engineering and geoscience organizations called the Organizational Quality Management (OQM) Program. Specifically, this program was developed in response to recommendations contained in the Professional Renewal Task Force Report published by APEGBC in 2009. The relevant recommendations in this report identified the significant level of influence organizations employing APEGBC professionals have on the quality management of the practice of the professions.

OQM is a voluntary APEGBC program for organizations that employ professional engineers and professional geoscientists in BC and provide products or services requiring the application of professional engineering or professional geoscience. The purpose of the program is to help organizations improve their quality management practices, reduce risk and support their professional employees. APEGBC is the only regulatory association in Canada offering a *voluntary* quality management program for organizations.

Through the OQM program, organizations agree to implement processes and procedures in seven areas: (1) APEGBC practice guidelines, (2) retaining project documentation, (3) checking engineering and geoscience work, (4) independent review of structural designs, (5) use of APEGBC seal, (6) direct supervision, and (7) field reviews.

Organizations are then audited on how well they are implementing the quality management processes and procedures. Similar to individual practice reviews, the audits function as a proactive mechanism to identify and address any quality management issues before any harm results. As of July 2016, there have been 44 audits and a total of 40 non-conformances with quality management processes and procedures since the OQM program began certifying organizations in 2014. These non-conformances were in the following areas:

- Use of seal issues – 19 non-conformances
- Lack of knowledge around professional practice guidelines – 9 non-conformances

- Issues around documenting the checks of engineering and geoscience work – 6 non-conformances
- Issues around retention of documents – 5 non-conformances
- General knowledge of OQM – 1 non-conformance

As of August 2016, 205 organizations have received OQM certification and 233 organizations have initiated the certification process. Organizations of all different sizes have received OQM certification—31% are sole practitioners, 30% have 1-5 professionals, 19% have 6-20 professionals, 16% have 21-100 professionals, and 4% have 100+ professionals. APEGBC estimates that about a quarter of organizations practising engineering and geoscience in BC are involved in various stages of the OQM process.

The OQM Program in BC is a unique consideration for the issue of regulatory oversight for corporate practice. The program is seen by certified firms, APEGBC, and outside parties as highly effective. In March 2016 Engineers Canada approached APEGBC and expressed their interest in making OQM a national program offered on a voluntary basis to organizations employing professional engineers. As a result, in July 2016 Engineers Canada and APEGBC organized a meeting with staff from two constituent engineering associations and 8 engineering firms located outside of BC. A pilot program is currently underway to evaluate the merits of making OQM a national program. This is a coordinated initiative between APEGBC and Engineers Canada with the participation of engineering firms in New Brunswick and Ontario.

5.3 What would corporate regulation mean for APEGBC's Organizational Quality Management Program?

APEGBC's OQM program is seen as valuable by many members and stakeholders. As per the Advisory Task Force's Terms of Reference, if APEGBC's Council decides to pursue regulatory authority for corporate practice, the Advisory Task Force will examine regulatory measures that would not be detrimental to OQM, but would compliment and support it.

6. Corporate practice options

The central question that we are examining is:

Should organizations that practise engineering and geoscience in BC be regulated?

To answer this question, we are examining the potential benefits and costs of taking a regulatory or a non-regulatory approach to corporate practice. We have reviewed 11 corporate regulatory models to identify similarities and differences in approaches across Canada with respect to regulatory coverage, regulatory requirements and responsibilities, compliance mechanisms and fee structures. Based on this review, we have structured six options for the purposes of this discussion paper that represent distinctly different approaches that could be taken. This section describes these options and presents a preliminary assessment of these options.

It must be emphasized that we have only been mandated by APEGBC's Council to advise on whether APEGBC should seek regulatory authority over corporate practice and to define the types of organizations, if any, that should be subject to APEGBC regulatory oversight. The purpose of exploring and evaluating these options is only to inform these recommendations. If APEGBC's Council decides to seek regulatory authority over corporate practice, a more comprehensive evaluation of options for corporate regulation will be needed and the Provincial Government will need to initiate any changes to the *Act.*

The six distinct options are summarized in Table 1. **Option 1** is the status quo approach that represents the continuation of APEGBC's current regulatory system. **Options 2 to 5** represent

different approaches to corporate regulation that could enhance public protection. Through the jurisdictional scan, we concluded that the requirements, responsibilities and compliance mechanisms in corporate regulatory models can be grouped into two broad approaches: *basic* and *quality management focused*. These models can then be applied to different types of engineering and geoscience organizations. Options 2 to 5 apply either the basic or quality management focused model with two different levels of regulatory coverage. **Option 6** considers other measures to enhance public protection as a comparison to implementing corporate regulation. While exploring these other measures is not the focus of our review, we believe consideration of these other measures is relevant for informing our recommendations.

6.1 Regulatory coverage for options 2 to 5

Based on an examination of corporate regulatory models applied in other jurisdictions, a minimum and maximum level of corporate regulatory coverage can be characterized as follows:

- **Minimum coverage:** The minimum level of corporate regulatory coverage is requiring consulting organizations that provide engineering and geoscience services to the public to obtain a certificate/permit and excluding sole practitioners from needing a license. All jurisdictions in Canada that regulate engineering and geoscience organizations have at least this level of minimum coverage. The rationale for regulating only consulting organizations is that these organizations provide engineering and geoscience services directly to the public and thus have the most influence on public protection. The rationale for excluding sole practitioners is that since they practise on their own there is no organizational influence on their practice.
- **Maximum coverage:** The maximum level of regulatory coverage is requiring all organizations that *practise* engineering and geoscience to obtain a certificate/permit, including sole practitioners. Note that there's a clear distinction between organizations that *practise* engineering/geoscience and organizations that have P.Eng/P.Geo on staff. Regulating all organizations that practise engineering and geoscience would include **consulting organizations** (including sole practitioners), businesses that practise for **internal consumption purposes only** (organizations that consume engineering and/or geoscience services internally for the production of a product—e.g., engineered product companies, resource companies), and **public sector organizations** (e.g., provincial crown corporations, public utilities, municipal governments and provincial agencies). The rationale for regulating all organizations that practise engineering/geoscience is that any practise of engineering/geoscience has implications for public protection and should be in compliance with the *Act*, Bylaws, and Code of Ethics.

For simplicity, we have structured options for this discussion paper that would include either the minimum or maximum level of regulatory coverage. Options 2 and 4 include the minimum level of coverage. Options 3 and 5 include the maximum level of coverage. Levels of regulatory coverage exist between these minimum and maximum levels and these are described in Appendix 1. If we decide to make a recommendation to APEGBC's Council to pursue regulatory authority over corporate practice, the next step will be a more detailed analysis of which organizations should be regulated.

Discussion Questions

If APEGBC decides to pursue regulatory authority for corporate practice, do you think all organizations practising engineering and geoscience in BC should be regulated? Why or why not?

If not, what types of organizations should be excluded?

6.2 Option 1: Status quo

Option 1 involves the continuation of the status quo approach to regulation of the engineering and geoscience profession in BC. Key elements describing the status quo approach include:

- **No regulation of corporate practice:** There would be no requirements for organizations that practise engineering and geoscience to register with APEGBC, and APEGBC would have no mandate to regulate the organizational influence on professional practice.
- **Continue with the voluntary Organizational Quality Management (OQM) Program:** APEGBC would continue to encourage engineering and geoscience organizations practising in BC to voluntarily certify through the OQM program. As of August 2016, APEGBC estimates that about a quarter of organizations practising engineering and geoscience in BC are involved in various stages of the OQM process.
- Continue with the regulation of individual professionals:
    - 7 Quality management standards for individual professionals;
    - 100 individual practice reviews per year; and,
    - Other regulatory mechanisms for individual professionals (e.g., complaints from the public, investigations, etc.).

Options 2 to 6 would involve APEGBC doing more than the status quo approach for the purposes of enhancing public protection. Options 2 to 5 would enhance public protection through implementing corporate regulation. Option 6 would look for other measures to enhance public protection.

6.3 Options 2 and 3: Basic models

Most Canadian jurisdictions apply a similar model for engineering and geoscience organizations that can be considered the 'basic model' (e.g., SK, MB, YK, NWT & NU, ON, PEI, NL). The requirements to receive a permit/certificate in a basic model are completion of an application form and payment of a fee. A few jurisdictions also require the submission of supporting documents. The basic model provides the following functions:

- **Prohibits the practice of professional engineering and geoscience by regulated organizations unless they obtain a permit/certificate.** This provides an entry barrier to the practice of the professions by regulated organizations.
- **Provides for a registry of regulated organizations practising engineering and geoscience in the jurisdiction**. A number of the regulatory associations publish this registry on their websites to allow members of the public to verify whether an organization is registered and has a permit/certificate. This registry also provides a means for the regulatory association to communicate relevant information about the professions.
- **Ensures regulated organizations employ professional engineers, geoscientists, and/or licensees**. Having at least one professional engineer, geoscientist or licensee on staff is a prerequisite to obtaining a permit/certificate and being registered. This system provides some checks to prevent regulated organizations from practising engineering and geoscience without a qualified professional on staff. Some regulatory associations (e.g., Newfoundland) ask for corporate representatives to be identified for each discipline practised by the organization, which provides an additional check that organizations are employing professionals with the appropriate qualifications.
- **Specifies the responsibility of regulated organizations to comply with the Act regulating engineering and geoscience in the jurisdiction, and the Bylaws and Code of Ethics of the regulatory authority.** In theory, this responsibility is supposed to address any conflicts of interest within an organization that would compromise the practice of the profession for achieving another organizational objective. However, this responsibility is

typically conveyed to organizations only at a high-level with little guidance around what it means to adequately fulfill this responsibility.

- **Designates corporate representatives that assume some responsibility for supporting corporate practice that complies with the Act, Bylaws and Code of Ethics.** Each jurisdiction has corporate representatives, but describes the responsibilities of corporate representatives differently. At a minimum, they serve as a key point of contact between the regulatory authority and the organization. They can also take on responsibilities for the personal supervision and responsible direction of a specific portion of the organization's professional practice (see Table 6 in Appendix 1).
- **Provides the regulatory association the authority to investigate regulated organizations in the event of an incident or complaint and the authority to require the production of relevant documents to inform the investigation.** While other legal mechanisms exist that can be used to investigate organizations implicated in a major incident, these mechanisms are not undertaken from the perspective of the engineering and geoscience professions' duty to protect the public and the documents in these investigations are not always available to regulators (sometimes a settlement is reached and the documents are confidential).

The basic model can be described as a reactive approach to public protection. It provides a disciplinary system in the event of a public incident or complaint regarding violations of the Act, Bylaws and Code of Ethics. The disciplinary system provides a deterrent to poor practice but does not actively encourage good practice.

Options 2 and 3 would implement a basic model for regulating organizations alongside APEGBC's current regulatory system for individual professionals. Option 2 applies the basic model with the minimum level of regulatory coverage (i.e., engineering and geoscience consulting organizations excluding sole practitioners). Option 3 applies the basic model with the maximum level of regulatory coverage (i.e., consulting organizations including sole practitioners, businesses that practise for internal consumption purposes only, provincial crown corporations, public utilities, and municipal governments).

6.4 Options 4 and 5: Quality management focused models

Quality management focused models include all of the functions of the basic model and add requirements and compliance mechanisms to proactively encourage good practice and reduce risks to public protection. The only corporate regulation in Canada for engineering and geoscience organizations that applies a quality management component is in Alberta. For regulated organizations to obtain their permit to practice from the Association of Professional Engineers and Geoscientists of Alberta (APEGA), they must develop and submit a Professional Practice Management Plan. Responsible Members are also required to attend Permit to Practice seminars that inform them of their duties and of how to create a Professional Practice Management Plan. APEGA requires a Professional Practice Management Plan to contain the following five elements: (1) organizational chart, (2) ethical standards, (3) professional and technical resources, (4) quality control, (5) professional documents and record retention. Aside from prescribing that the Plan must cover these five elements, APEGA does not prescribe the content for the plan. It is the responsibility of the regulated organization to develop a Professional Practice Management Plan that is appropriate to their industry and practice discipline.

BC's voluntary OQM Program (described in the section Corporate regulation in BC and across Canada) provides another model for quality management focused corporate oversight. The OQM program certifies participating organizations only after they have developed processes and procedures for quality management that meet the standards established by the program. Processes and procedures are implemented in seven areas: (1) APEGBC practice guidelines, (2)

retaining project documentation, (3) checking engineering and geoscience work, (4) independent review of structural designs, (5) use of APEGBC seal, (6) direct supervision, and (7) field reviews.

OQM differs from APEGA's approach because OQM establishes minimum bars for quality management that every organization certified through OQM must meet.

Both Alberta's corporate regulatory model and the OQM Program use audits to verify compliance. If issues are identified in the audits, the associations enter into proactive discussions on how the issue can be resolved. APEGA informed us that they find the audit system to be a useful and effective mechanism for identifying and resolving compliance issues. APEGBC reported to us that in their experience, the OQM audit helps organizations identify where their quality management practices can be improved and provides a framework for making those improvements. This, in turn, helps organizations to increase efficiencies and customer satisfaction, reduce risk, and support their professionals in meeting their professional requirements. In addition, auditors frequently receive positive feedback on the audit process from organizations and are regularly asked by organizations to conduct additional audits.

A quality management focused corporate regulation in BC could be modeled after the approach implemented in Alberta, the OQM Program, or could be hybrid model that incorporates elements of both the Alberta model and the OQM Program.

Options 4 and 5 would implement a quality management focused model for regulating organizations alongside APEGBC's current regulatory system for individual professionals. Option 4 applies the quality management focused model with the minimum level of regulatory coverage (i.e., engineering and geoscience consulting organizations excluding sole practitioners). Option 5 applies the quality management focused model with the maximum level of regulatory coverage (i.e., consulting organizations including sole practitioners, businesses that practise for internal consumption purposes only, and public sector organizations practising engineering and geoscience).

6.5 Option 6: Other approaches to public protection

While our focus to this point has been on the exploration of potential corporate regulatory models, we are also considering possible other approaches to improve public protection that could be pursued instead of regulation over corporate practice. One other approach that we have discussed is the scaling up of individual practice reviews that are currently carried out. APEGBC's Practice Review Program is intended to be an educational and professional development process for the benefit of members, as well as a proactive quality assurance check on their practices. Approximately 100 individual practice reviews are carried out each year on a random selection basis within one or more disciplines, areas of practice and/or other relevant risk factors. Increasing the number of practice reviews would have more outreach and opportunities to support/educate members on the quality of their professional practices, but it would not prevent the perception of a corporate regulatory gap and would not address any corporate influences that may be adversely affecting members' professional practices. If other approaches are identified through the course of consultation, these will also be compared to implementing corporate regulation.

Discussion Questions

Do you think that other approaches to enhancing public protection with respect to the practice of the profession should be further explored as an alternative to potentially regulating corporate practice?

Table 1: Detailed description of options

Components of Options			Option 1: Status Quo	Option 2: Basic model with minimum coverage	Option 3: Basic model with maximum coverage	Option 4: Quality management focused model with minimum coverage	Option 5: Quality management focused model with maximum coverage	Option 6: Other measures to enhance public protection
Based off of models in:			N/A	SK, MB, YK, NWT, NU, ON, PEI, NL		AB		N/A
Corporate Regulatory Coverage	**Private Sector**	Sole Practitioners	X	X	✓	X	✓	X
		Consulting Firms	X	✓	✓	✓	✓	X
		Internal Consumption	X	X	✓	X	✓	X
	Public Sector	Crown Corps.	X	X	✓	X	✓	X
		Municipal Gov'ts	X	X	✓	X	✓	X
Requirements for Regulated Organizations	Compliance with Act, Bylaws and Code of Ethics		X	✓	✓	✓	✓	X
	Designation of corporate representative(s)		X	✓	✓	✓	✓	X
	Quality mgmt requirements		X	X	X	✓	✓	X
Compliance	Reactive approach to ensuring regulated organizations are in compliance (e.g., complaints from public, association can investigate and require production of docs)		X	✓	✓	✓	✓	X
	Proactive audits of regulated orgs		X	X	X	✓	✓	X
Other			APEGBC continues with current regulatory system for individual professionals	Corporate regulation is implemented alongside current regulatory system for individual professionals				APEGBC regulatory system for individual professionals is enhanced through more individual practice reviews

6.6 Options assessment

Based on input from members and stakeholders heard to date, we have identified five broad objectives as important when considering regulatory and non-regulatory options for corporate practice: (1) public protection, (2) value to the professions, (3) administrative cost and effort, (4) fairness, and (5) private sector effects. Within these broad objectives, we identified more specific assessment criteria to help characterize the performance of the options.

Table 2 presents a *preliminary* assessment of the six options. This assessment is necessarily at a coarse or high level as consultation activities are ongoing and we have not yet determined if we will recommend regulatory authority over corporate practice. We encourage feedback from stakeholders and members on this assessment. Feedback on the following questions will be especially helpful at this point in the review process:

- **Are there any objectives or criteria that you think are missing from this assessment and that you think are important considerations in assessing the pros and cons of these different options?**
- **Do you agree with the characterization of the performance of these options? If not, why not?**
- **Are there other approaches to corporate regulation that you think we should evaluate that are not represented in this discussion paper?**

The expected performance of the options against the assessment criteria is described below. This assessment is based on the information that we have reviewed to date, input we have heard from members and stakeholders and discussions at the Task Force table. The assessment represents our best guess of how the options would affect the objectives. We present the information here to support a dialogue with members and stakeholders—*do we have this assessment right, or are there other considerations?*

Public protection – Quality of practice: A basic model (Options 2 and 3) is expected to result in some minor improvements to quality of practice. In particular, a basic model would establish a responsibility on the owners or executives of an organization to maintain an organization in which the practice of engineering and geoscience can be conducted in accordance with the requirements in the *Act*, Code of Ethics and Bylaws. In the basic model, APEGBC would engage in educational efforts to increase awareness and understanding among regulated organizations of their responsibilities. However, they would not actively review the compliance of organizations. The basic model's compliance mechanism is a reactive approach and depends on complaints and investigations regarding events that have already happened. A quality management focused model (Options 4 and 5) would provide more specific guidance and standards on what it means to have an organization that supports professional practice in accordance with the requirements of the *Act*, Code of Ethics and Bylaws. A quality management focused model would then have a proactive compliance approach aimed at preventing problems from occurring due to poor practice or misconduct. With both the basic model or quality management focused model, the greater the regulatory coverage, the higher the level of public protection.

Public protection – Individual professional responsibility: As discussed in the Key Considerations section, corporate regulation will not change individual professional responsibilities, but it may have an impact on the perception of these responsibilities. If corporate regulation is implemented, care would need to be taken to ensure that corporate regulation does not result in the *perception* that individual professional responsibilities have changed.

Value to the professions – Value to individual professionals: The basic model (options 2 and 3) would provide some value to individual professionals by better aligning the legal responsibilities of professionals with the legal responsibilities of the organizations in which they work. This value would be greater for individual professionals working for organizations with owners and/or mangers that are not professional engineers and geoscientists and therefore have less awareness and/or commitment to the professions' *Act*, Code of Ethics and Bylaws. The quality management focused model (options 4 and 5) would provide the same types of values as the basic model and additionally would ensure organizations have structures and processes in place to support professional practice. Scaling up individual practice reviews (option 6) would not address the organizational influence on professional practice and therefore would not be able to provide the same types of values to individual professionals as options 2 to 5. In addition, scaling up individual practice reviews would likely not have the same reach as options 2 to 5 and is therefore expected to have less value to individual professionals.

Value to the professions – Reputation of the professions: In the status quo approach, perception of a regulatory gap between BC and most other jurisdictions in Canada could pose reputational risk for the professions. Perceptions of a regulatory gap would continue to be highlighted whenever an incident happens (e.g., Mt. Polley, Burnaby Save-on-Foods roof collapse). Implementation of corporate regulation (options 2 to 5) would prevent the perception of a regulatory gap. A quality management focused model (options 4 and 5) would be seen by the public and government as proactive approaches to improving the quality of practice and would therefore improve the reputation of the professions in BC relative to the basic model, but it is unclear by how much. For option 6, scaling up individual practice reviews are expected to have less of an improvement on the overall reputation of the profession than options 2 to 5. Scaling up individual practice reviews would likely not have the same visibility to the public and government as implementing corporate regulation and would likely not be seen as substitutes for addressing the perceived regulatory gap.

Administrative costs and effort – Fees: The cost to APEGBC of implementing any corporate regulatory model could be recovered with fees from regulated organizations. So the higher the costs to implement and administer corporate regulation, the higher the fees would be. From discussions with the regulatory associations implementing the basic model of corporate regulation, we estimate that this model requires about half the time of a full time employee (FTE) at the regulatory association to implement. APEGA has informed us that it requires about 2.5 FTEs to implement their program. The OQM program is run on a cost-recovery basis and 2 FTEs are employed at APEGBC currently to implement the program. Note that the number of FTEs for other corporate regulatory programs and the OQM program are not directly comparable because the number of FTEs is dependent on the number of organizations in the program.

Administrative effort for organizations: The administrative effort for regulated organizations in the basic model is low. The basic model typically involves filling out a form that requires answering the following types of questions:

- What engineering and/or geoscience disciplines are practised by the organization?
- Who in the organization has the authority and will accept responsibility for ensuring the practice of the professions can be conducted in accordance with the requirements described in the *Act*, Code of Ethics and Bylaws?
- Who are the professional engineers, geoscientists, and/or licensees in the organization that will have responsibilities such as responsible direction and personal supervision?

A quality management focused model would require more effort than the basic model for regulated organizations (see description of requirements for the APEGA model and OQM in the

section on Option 4 and 5). The level of effort would be variable across organizations depending on the quality management systems already set up in the organization.

Fairness – Regulatory burden on small organizations: A system of requirements and fees has the potential to have a disproportionate burden on small organizations compared to large organizations. Fee structures that are scaled to the size of organizations (e.g., number of professionals on staff) have been implemented in corporate regulatory models that make the fees fairer. For example, Yukon's fee structure exempts sole practitioners from annual dues. Saskatchewan's fee structure provides a 50% discount on annual fees for organizations with less than 5 professionals. The OQM program has a unique fee structure that is generally viewed as a fair system by participating organizations. A fundamental principle of the program is that fees are set on a cost-recovery basis. The fee formula is 200 multiplied by the square root of the number of professional engineers and/or geoscientists employed by the organization, resulting in a fee of $200 for an organization with one professional and $2,000 for an organization with 100 professionals.

The basic model will typically not scale regulatory requirements according to the size of organization since the level of effort to meet requirements is low. Quality management focused models do provide some flexibility so that requirements fit the context of the organization. APEGA approaches this by mandating the topics that must be covered in an organization's Professional Practice Management Plan but does not mandate the content. Organizations are responsible for developing a Professional Practice Management Plan that is appropriate to their practice and in the event of an audit, they are expected to be able to demonstrate that their Plan is adequate. The OQM program's certification process is also scalable according to an organization's size and discipline(s), but has less flexibility compared to the APEGA approach.

Private sector effects – Business environment: There's an interest in not negatively affecting engineering/geoscience companies through regulating corporate practice. The basic model, in and of itself, is not expected to have an effect on the business environment as the fees and regulatory requirements are low.

The effects of a quality management focused model on the BC business environment are unknown. We have discussed whether a quality management focused model has the potential to reverse (or slow) the trend in commodification of engineering/geoscience services, which refers to the growing emphasis on lowering costs rather than doing a job well or correctly (this benefit, if realized, would also contribute to improving the quality of practice). More discussion and investigation into this potential benefit is needed.

6.7 Summary

The options assessment shows that corporate regulation could provide several benefits over the status quo approach (e.g., benefits to quality of practice, individual professionals, and reputation of the profession). However, corporate regulation would result in additional fees and effort for regulated organizations. A quality management focused model could provide greater benefits than a basic model, but also requires more costs and effort from regulated organizations. We are interested in hearing from members and stakeholders on whether you think the benefits of corporate regulation outweigh the costs and effort required to implement it. We encourage you to provide feedback between October 4, 2016 and November 30, 2016 through an online survey accessible through apeg.bc.ca/corporatepractice or by sending an email to corporatepractice@apeg.bc.ca. Other consultation opportunities, such as live presentations and a webcast will be listed on the APEGBC website at apeg.bc.ca/corporatepractice as they become available.

Discussion Questions

Do you think the benefits of corporate regulation outweigh the costs and effort? Why or why not?

If APEGBC decides to pursue regulatory authority for corporate practice, do you think a basic model for corporate regulation or quality management focused model should be applied?

Are there refinements to these models that you think would offset the costs/effort or improve the benefits?

Table 2: Options Assessment Matrix (based on current available information before the Advisory Task Force)

Objective	Assessment Criteria	Option 1: Status Quo	Option 2: Basic Model with minimum coverage	Option 3: Basic Model with maximum coverage	Option 4: Quality Mgmt focused model with minimum coverage	Option 5: Quality Mgmt focused model with maximum coverage	Option 6: Other measures to enhance public protection – scaling up individual practice reviews
Public protection	**Quality of practice**	No change	Minor improvements to quality of practice	Increasing coverage would increase improvements to quality of practice compared to option 2	Substantive improvements to quality of practice compared to options 2 and 3.	Increasing coverage would increase improvements to quality of practice compared to option 4	Potential to improve quality of practice, but difficult to compare to corporate regulation
	Individual professional responsibility	No change in individual professional responsibilities in Options 1 to 6. For options 2 to 5, actions would need to be taken to ensure corporate regulation does not result in the perception that individual professional responsibilities have changed.					
Value to the profession	**Value to individual professionals**	No change	Better alignment of the legal responsibilities of professionals with the legal responsibilities of the organizations in which they work.		Would ensure organizations have structures and processes in place to support professional practice in line with the Act, Code of Ethics, and Bylaws.		Would have value to the professionals benefiting from practice reviews, but would not address organizational influence
	Reputation of the profession	No change – but potential reputational risk	Could improve reputation – meets expressed public expectations and closes perceived regulatory gap		Reputation could improve more so than in options 2 and 3 but it is unclear by how much.		Could improve reputation, but would likely have a lower impact than options 2 to 5.

Legend:
Green shading – indicates improvements compared to the status quo. The darker the shade of green, the larger the expected improvement.
Red shading – indicates diminishing performance compared to the status quo. The darker the shade of red, the lower the expected performance.
No shading – indicates no change, uncertainty in performance, or performance that depends on other factors.

Objective	Assessment Criteria	Option 1: Status Quo	Option 2: Basic Model with minimum coverage	Option 3: Basic Model with maximum coverage	Option 4: Quality Mgmt focused model with minimum coverage	Option 5: Quality Mgmt focused model with maximum coverage	Option 6: Other measures to enhance public protection – scaling up individual practice reviews
Adminis-trative cost and effort	**Expected Fees for organizations**	No fees	Lower fees than the quality management focused model (Options 4 and 5)		Higher fees than the basic model (Options 2 and 3)		No fees
	Administrative effort for organizations	No effort	Low effort for regulated organizations		Higher effort for regulated organizations		No effort
Fairness	**Regulatory burden for small organizations**	No requirements on small organizations	The potential exists for corporate regulation to be implemented in a way that has a disproportionate burden (in terms of fees and requirements) on small organizations compared to large organizations. Mechanisms exist to make the regulatory burden more equitable across different sizes of organizations.				No requirements on small organizations.
Private sector effects	**Business environment**	No change	No change – fees and regulatory requirements are not high enough to affect business environment		Uncertain – more investigation needed		No change

Legend:
Green shading – indicates improvements compared to the status quo. The darker the shade of green, the larger the expected improvement.
Red shading – indicates diminishing performance compared to the status quo. The darker the shade of red, the lower the expected performance.
No shading – indicates no change, uncertainty in performance, or performance that depends on other factors.

Appendix 1 – Corporate Regulation of Engineering and Geoscience Organizations across Canada

Every province and territory in Canada regulates engineering and geoscience organizations under a mandatory legislated authority except BC and Quebec. The Advisory Task Force has reviewed 11 of these corporate regulatory models to identify similarities and differences in approaches across Canada with respect to regulatory coverage, regulatory requirements and responsibilities, compliance mechanisms and fee structures (see Table 3 and Table 4 for summary).

Regulatory coverage

Each regulatory model has a unique definition for what types of engineering and geoscience organizations require a permit/certificate (see Table 5 for these details). All regulatory models require specific types of organizations that practise professional engineering and geoscience to obtain a permit/certificate. None of the regulatory models require organizations to have a permit/certificate just because they employ professional engineers or professional geoscientists. The similarities and differences of these regulatory models with respect to regulatory coverage include:

- **Consulting firms:** All 11 regulatory models in Canada require consulting organizations that provide engineering and geoscience services to obtain a permit/certificate. Four regulatory models exclude sole-proprietor consultants from needing a permit/certificate.

- **Organizations that practise for internal consumption purposes only:** There is a mixed approach toward organizations that practise engineering and geoscience for internal consumption purposes only (i.e., they do not provide engineering or geoscience services to another external entity). Three regulatory models require all organizations that practise for internal consumption purposes only to obtain a permit/certificate. Five regulatory models only require some of these organizations to get a permit/certificate, for example if they are undertaking custom designs or manufacturing engineered products that will be used by the public. Three regulatory models don't require these organizations to get a permit/certificate.

- **Federal/provincial/territorial government agencies:** None of the regulatory models require federal, provincial or territorial ministries that practise engineering and geoscience to obtain a permit/certificate.

- **Public utilities:** Two regulatory models require public utilities to obtain a permit/certificate (e.g., Yukon Energy, NWT Power Corporation).

- **Municipal governments:** Yukon, Northwest Territories, and Nunavut require municipal governments to obtain a permit/certificate, and Alberta requires municipal governments to obtain a permit/certificate if they are incorporated. All other jurisdictions do not require municipal governments to obtain a permit/certificate.

Table 3: Jurisdictional Scan Summary Table – Regulatory Coverage and Requirements[1]

Juris-diction	Profession	Mandatory corporate regulation	Name of Regulatory Tool	Regulatory Coverage				Regulatory Requirements			
				Private Sector		Public Sector		Compliance with Act, bylaws, Code of Ethics	Declaration of corporate represent-tative(s)	Corporate mark on professional work	Other
				Consulting	Internal Consumption	Crown Corps/ Utilities	Municipal Gov't				
BC	**Eng/Geo**	**X**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
AB	Eng/Geo	✓	PtP	✓ (excludes SP)	✓	X	✓ (if incorporated)	✓	✓	Permit #	Profnl Practice Management Plan
SK	Eng/Geo	✓	CoA	✓ (excludes SP)	✓	X	X	✓	✓	Corporate Practice Seal	-
MB	Eng/Geo	✓	CoA	✓	X	X	X	✓	✓	CoA Stamp	Profnl Liability Insurance
YK	Eng	✓	PtP	✓	✓	✓	✓	✓	✓	Permit Stamp	-
NWT & NU	Eng/Geo	✓	PtP	✓ (excludes SP)	✓ (exemptions apply)	✓[2]	✓[3]	✓	✓	Permit Stamp	-
ON	Eng	✓	CoA	✓	✓ (custom designs only)	X	X	✓	✓	X	Profnl Liability Insurance[4]
QC	Eng	X	-	-	-	-	-	-	-	-	-
NB	Eng/Geo	✓	CoA	✓ (excludes SP)	✓[5] (products used by public)	X	X	✓	✓	X	Profnl Liability Insurance
NS	Eng	✓	CoC	✓	X	X	X	X	X	X	-
NS	Geo	✓	CoA	✓	X	X	X	X	X	X	-
PEI	Eng	✓	CoA	✓	✓ (custom designs only)	X	X	✓	✓	X	-
NL	Eng/Geo	✓	PtP	✓	✓ (custom designs only)	X[6]	X	✓	✓	Permit Stamp	Profnl Liability Insurance

Notes:
✓ = Yes
X = No

SP = sole proprietorships
Consulting = organizations that provide engineering and/or geoscience services to an external client
Internal consumption = organizations that consume engineering and/or geoscience services internally for the production of a product
CoA = Certificate of Authorization
PtP = Permit to Practice
CoC = Certification of Compliance
Profnl = Professional

Table 4: Jurisdictional Scan Summary Table – Compliance Mechanisms and Fees

Jurisdiction	Profession	Compliance Mechanisms			Fees	
		Permit or Certificate can be revoked for non-compliance?	Complaints from public accepted?	Association can investigate and require production of docs?	Application Fee	Annual Fee
BC	**Eng/Geo**	-	-	-	-	-
AB	Eng/Geo	✓	✓	✓	$520	$520
SK	Eng/Geo	✓	✓	✓	$325	$400 (<5 professionals) & $800 (>=5 professionals)
MB	Eng/Geo	✓	✓	✓	-	$250 (Sole Practitioner) & $500 (multiple professionals)
YK	Eng	✓	✓	✓	$100	$240 (sole practitioner exempt from annual fee)
NWT & NU	Eng/Geo	✓	✓	✓	$100	$390
ON	Eng	✓	✓	✓	$330	$330
QC	Eng	-	-	-	-	-
NB	Eng/Geo	✓	✓	✓	$286	$357.5
NS	Eng	✓	X	X	-	$84 (sole practitioner) & $335 (other)
NS	Geo	✓	X	X	$287	$230 (sole practitioner) & $862 (other)
PEI	Eng	✓	✓	✓	-	$150
NL	Eng/Geo	✓	✓	✓	$253	$649-$1186 (varies by # of disciplines permitted)

Notes:
✓ = Yes X = No

Regulatory requirements and responsibilities
Below is a summary of the regulatory requirements and responsibilities across the 11 regulatory models in Canada that were reviewed.

- **Registration and fees:** All 11 corporate regulatory models require regulated organizations to complete an application form and pay fees to the regulatory association. Completion of the application form and payment of the application fee are the basic requirements for receiving a permit/certificate. To maintain the permit/certificate, the forms have to be re-submitted every year, an annual fee has to be paid, and the regulated organization needs to comply with any other requirements and responsibilities for holders of permits/certificates.

- **Compliance with Act, Bylaws, and Code of Ethics:** Out of the 11 regulatory models reviewed, all of the models except Nova Scotia's require organizations that hold a permit/certificate to comply with the engineering and/or geoscience Act of the jurisdiction and the Bylaws and Code of Ethics passed by the regulatory association. Most regulatory associations do not provide any specific guidance on what exactly is required of regulated organizations in order to be in compliance with the Act, Bylaws and Code of Ethics.

- **Corporate representatives:** All regulatory models except the ones in Nova Scotia require that organizations identify corporate representative(s) on their application form for permits/certificates. In some jurisdictions, these corporate representatives are restricted to professional engineers and geoscientists. Other jurisdictions ask for corporate representatives from the senior executive of the organization in addition to corporate representatives that are professional engineers and/or geoscientists (see Table 6 for details on corporate representatives).

- **Corporate mark on professional work:** A mixed approach exists across the regulatory models for whether regulated organizations have to put an additional mark on professional work (other than the stamp of the individual professional). Five regulatory models provide a corporate stamp/seal to regulated organizations and this stamp/seal must be on all professional work. Alberta just requires the permit to practice registration number to be on professional work. The other five regulatory models have no requirements in this regard.

- **Professional liability Insurance:** A less common requirement across the regulatory models is for organizations to have professional liability insurance. Three regulatory models (MB, NB, and NL) require all regulated organizations to have a minimum amount of professional liability insurance. Ontario requires all regulated organizations to have professional liability insurance but exempts engineering consulting organizations if they declare to clients that they do not have this insurance.

- **Quality management**: Alberta is the only jurisdiction in Canada with a corporate regulation that includes a quality management component for regulated organizations. In Alberta, permit holders are required to have a Professional Practice Management Plan that describes the corporate policies, procedures, and systems used to ensure that engineering and/or geoscience work done on behalf of the company is done responsibly and meets all legal requirements.

Compliance mechanisms
Compliance mechanisms across the corporate regulatory models are quite similar. They are mostly reactive mechanisms, meaning they are applied after an incident of non-compliance as opposed to proactive mechanisms, which would be applied to prevent incidents of non-compliance. Reactive mechanisms include:

- Providing the regulatory association with the authority to revoke a permit/certificate for non-compliance;
- Accepting complaints from the public against regulated organizations; and,
- Investigating organizations that receive complaints and requiring the production of documents relevant to the investigation.

Across the regulatory models there are only a few examples of proactive compliance mechanisms. In Ontario and Newfoundland, the regulatory association requires the submission of academic and experience qualifications for any corporate representative assuming responsibility for professional practice. These qualifications are reviewed to verify the corporate representative has adequate competency to assume responsibility for that area of practice.

Alberta applies the most proactive compliance mechanism out of all the regulatory models—random audits of permit holders. The Professional Practice Management Plan is the starting point for these audits and permit holders are expected to be able to show the regulator that the plan is appropriate for the kind of work that the company is doing. If issues are identified by the audit, the regulator works with the permit holder to get their organization into compliance. If the organization does not address these issues, the regulator has the authority to revoke the organization's permit to practice—however, there are no known instances of this happening.

Fee structures
Across Canada, there are three different types of fee structures:

- Flat-fee (all regulated organizations pay the same fees);
- Pro-rated fee based on the number of professional engineers and/or geoscientists employed by organization; and,
- Pro-rated fee based on the number of disciplines practised by an organization.

For the regulatory models that have pro-rated fees based on the number of professionals employed, most models distinguish between two sizes of organizations—sole-practitioner organizations and organizations with two or more professionals. Yukon's fee structure exempts sole practitioners from annual dues. Saskatchewan's fee structure is unique, providing for a 50% discount on annual fees for organizations with less than 5 professionals.

Table 5: Jurisdictional Scan – Corporate Oversight Coverage

Jurisdiction	Profession	Corporate Oversight Coverage
BC	Eng/Geo	Does not have corporate regulation. The voluntary Organizational Quality Management (OQM) Program is available to all organizations that employ professional engineers or professional geoscientists in BC and provide products or services requiring the application of professional engineering or professional geoscience. "Organization" is defined as any firm, corporation, partnership, government agency, sole proprietor or other legal entity.
AB	Eng/Geo	AB's *Engineering Geoscience Professions Act* requires that partnerships,

Jurisdiction	Profession	Corporate Oversight Coverage
		corporations and other such entities which practise engineering or geoscience require a Permit to Practice. Sole-proprietors are not required to have a Permit to Practice unless they are incorporated.
SK	Eng/Geo	SK's *Act* requires all partnerships, associations of persons or corporations practising engineering and geoscience to obtain a Certificate of Authorization. Sole proprietorships do not require CoAs because they are not considered a partnership, association of persons or corporation. If a sole proprietor becomes incorporated then he/she will require a CoA.
MB	Eng/Geo	*The Engineering and Geoscientific Professions Act* in MB requires that any corporation, partnership or other legal entity which contracts to, or otherwise engages in the provision of services which constitute the practice of professional engineering or practice of professional geoscience, directly or indirectly, must hold a Certification of Authorization (Section 16). Sole proprietorships are not required to hold a CoA because they are not incorporated entities. For the purposes of distinguishing "one person" corporations for fee consideration and to identify corporations which are not required to hold a CoA, APEGM has established the following three categories of entities: A **sole-practitioner entity** is a partnership, corporation or other entity owned and controlled by a single professional engineer or geoscientist, has no other professional engineers/geoscientists in employment and has fewer than five employees. An **operating entity** is a partnership, corporation, or other entity where all professional services are consumed internally in the creation of the product that the operating entity sells, and no professional services are offered directly to anyone (person or company) outside the operating entity for a fee or other consideration. A **practising entity** is a partnership, corporation, agency or other entity which does not meet all of the criteria of either a sole-practitioner entity or operating entity. This category includes those organizations that offer professional services to clients or customers, directly or indirectly. In MB, sole-practitioner entities and practising entities are required to hold a CoA. Operating entities are not required to hold a CoA.
YK	Eng	YK's *Engineering Professions Act* requires that all partnerships, corporations and other such entities that practise engineering have a Permit to Practice. YK does not differentiate between size of an organization or whether the organization is practising for internal or external reasons—if an organization is practising engineering, then it requires a Permit to Practice. This includes sole proprietorships.
NWT and NU	Eng/Geo	NWT's *Engineering and Geoscience Professions Act* and NU's *Consolidation of Engineers and Geoscientists Act* require all firms (defined as partnerships, corporations, and associations of persons) practising engineering and/or geoscience in NWT and NU have a Permit to Practice. A sole proprietor (who is not incorporated and not practising through a firm) is not required to hold a Permit to Practice.

Jurisdiction	Profession	Corporate Oversight Coverage
		Section 23 (6) of NWT's *Engineering and Geoscience Professions Act* and Section 5 (3) of NU's *Consolidation of Engineers and Geoscientists Act* exempts firms from needing a permit to practice professional engineering and geoscience if the work: (a) is performed by an employee who is a member or licensee, (2) is used exclusively by the firm and is not used by or delivered to another party, (3) does not affect the safety of any person.
ON	Eng	ON's *Professional Engineers Act* states "No person shall offer to the public or engage in the business of providing to the public services that are within the practice of professional engineering except under and in accordance with a certificate of authorization." Professional Engineers Ontario (PEO) describes the following criteria to determine if you are providing engineering services to the public and require a CoA: • If you advertise and promote yourself—either personally or through a legal entity such as a company or partnership—as offering professional services; or, • If you provide professional engineering services to the public through the sale of a product that is custom-designed or an original (as opposed to an off-the-shelf product); or, • If you work for others, but offer professional engineering services directly to the public on a part-time, moonlighting, or volunteer basis.
QC	Eng	No mandatory corporate regulation or voluntary corporate oversight.
NB	Eng/Geo	In NB, only persons who are members of the association, or licensees, or holders of certificates of authorization may practise engineering and geoscience (*Engineering and Geoscience Professions Act,* Section 9). A Certificate of Authorization is required by any partnerships, associations of persons, or corporations that offer or provide services to the public within the practice of engineering or geoscience.
NS	Eng	In NS, every organization that provides professional engineering services directly to the public is required to obtain a certificate of compliance. Those business entities that practise professional engineering for their own use are not required to obtain a certificate of compliance.
NS	Geo	NS's *Geoscience Professions Act* states that a "partnership, association of persons or body corporate may undertake and carry out the application of geoscience in its own name if one of its principal and customary functions is the application of geoscience and such application of geoscience is carried on under the supervision of a member or full-time permanent employee of the partnership, association or body corporate who holds a certificate of registration or a license to practice." Only if a partnership, association of persons or body corporate meets this criterion will it be issued a certificate of authorization (Section 14).
PEI	Eng	In PEI, partnerships, association of persons, and corporations require a Certificate of Authorization to offer and provide engineering services to the public. PEI defines "offering and providing engineering services to the public" in the same way as Ontario.
NL	Eng/Geo	In NL, the *Engineers and Geoscientists Act* requires that a professional member, partnership or corporation that provides the services of a

Jurisdiction	Profession	Corporate Oversight Coverage
		professional member directly to the public have a Permit to Practice. In NL, an individual who is a professional member or licensee of PEGNL who provides professional services to the public in his or her own name or through a company requires a Permit to Practice even if the member is the only member of the organization. "Providing services to the public" includes consulting companies and those for which customized engineering or geosciences services are a significant portion of the product they offer to their clients.

Table 6: Declaration of Corporate Representatives

Jurisdiction	Profession	Application form requirements for designation/declaration of individuals
BC	Eng/Geo	OQM (a voluntary program) has an **attestation form** that needs to be submitted with applications for OQM certification. The attestation form reads: "I [name of appointed senior APEGBC professional in organization] am a senior APEGBC professional in [name of organization] and I have the authority to sign for the organization. I confirm that, [name of organization] has APEGBC professionals on active staff in each area of our engineering and/or geoscience practice and that **we have documented and implemented policies and procedures consistent with all of the applicable quality management requirements** listed above."
AB	Eng/Geo	Application form asks for: • Declaration by a **Chief Operating Officer**. Declaration reads: "I [name] occupy the position of [title] in the applicant's organization and in that position have authority and undertake to maintain an organization in which the practice of the professions indicated above **can be conducted** in accordance with requirements described in the *Engineering and Geoscience Professions Act* with specific reference to Parts 1 [Scope of Practice] & Part 4 [Registration] of the *Act* and Part 7 of the Regulations [Registration of Permit Holders]." • Declaration of **Responsible Member**(s) that reads: "I [legal name],[prof. designation], APEGA Member [Member Number], occupy the position of [job title] at [legal name of Organization] declare that I am a professional member or licensee of APEGA and as such undertake to provide responsible direction and personal supervision to that portion of the applicant's professional practice performed by the organization unit described below [Describe what aspect(s) of professional practice you are taking responsibility for)]. • Declaration of Responsible Members needs to be signed and professional stamped/sealed.
SK	Eng/Geo	Application form asks for: • Names of professional engineers and professional geoscientists who will be **in charge** of professional engineering or professional geoscience on behalf of the Applicant (professionals designated as "in charge" don't have to sign the application form); • An **official representative(s)** whose duty it is to ensure that the Act and Bylaws are complied with by the Applicant (Official representative(s) must be members or licensees of APEGS and must sign the application form);

Jurisdiction	Profession	Application form requirements for designation/declaration of individuals
		• an "**Authorized Signing Officer**" to certify the information in the application is true and complete.
MB	Eng/Geo	• Application uses same language as APEGA for declaration of Chief Operating Officer and Responsible Member(s).
Yukon	Eng	Application form asks for: • Declaration from a **Chief Operating Officer** to declare that he/she has authority and can undertake to maintain an organization in which the practice of the professions in the identified engineering discipline(s) **can be conducted** in accordance with requirements described in the *Engineering Professions Act*. • Declaration by members for "**Licensees Assuming Responsibility for the Professional Practice**". Declaration reads "I, the undersigned, am a professional member or licensee of Engineers Yukon and as a full time employee or member of the firm undertake to provide **responsible direction** and **personal supervision** to that portion of the applicant's professional practice performed by the organizational unit described below. I have read the relevant sections of the *Engineering Professions Act* and the Regulations reproduced herein and I agree to conduct the professional practice for which I have assumed responsibility in strict accordance with the requirements of relevant legislation and regulations."
NWT and NU	Eng/Geo	• Application uses same language as APEGA for declaration of Chief Operating Officer and Responsible Member(s).
ON	Eng	Application form asks for: • Names (but no signatures) of the sole practitioner, partners or employees who hold licenses with PEO and **will assume responsibility** for the services provided within the practice of professional engineering; • Names and addresses of the owners/top executives of an organization (sole practitioner, all partners, or all officers and directors of organization); • Signature from the person certifying that the information in the form is true and correct.
QC	Eng	• N/A
NB	Eng/Geo	Application form asks for: • Names (but no signatures) for the officers/partners of the firm; • Names (but no signatures) of all engineers and geoscientists who will be **in charge** of the engineering or geosciences done by the firm; • Signature by an **Authorized Signing Officer** that certifies all information in the application is true and correct.
NS	Eng	• No designation of "responsible member"; • Application form asks for the member #, name, position and email of "Engineers providing engineering services for Nova Scotia"; • Application form asks for a contact person; • A company representative needs to sign the form to certify that the information is "in all respects current and accurate."
NS	Geo	Application form asks for:

Jurisdiction	Profession	Application form requirements for designation/declaration of individuals
		• Names of members and licensees under whose **supervision** geoscience is applied; • Signature that certifies all information in the application is complete, true and correct.
PEI	Eng	Application form asks for: • Names (but no signature) of the officers of the firms; • Name, discipline and signature of all engineers **in charge of engineering** being done by the firm.
NL	Eng/Geo	• PEGNL licenses permit holders by discipline and requires at least one member in responsible charge for each discipline under the permit to practice.

[1] This table has been reviewed by the regulatory authorities in New Brunswick, Northwest Territories and Nunavut, and Yukon and are informed by teleconferences with the regulatory authorities in Alberta, Saskatchewan and Nova Scotia. The information for all other jurisdictions are based off of information on the websites of the regulatory authorities, downloaded in May 2016.

[2] NWT Power Corporation and Northland Utilities have permits to practice.

[3] City of Yellowknife has a permit to practice and NAPEG is currently working on getting more municipalities registered.

[4] In Ontario, engineering consulting companies can be exempt from the professional liability insurance requirement if: (1) **Class exemption -** the applicant is not required to have professional liability insurance in accordance with clause 74(2)(c) as the applicants practice would be in respect of pollution hazards, nuclear hazards, aviation hazards or shipping hazards, or (2) **Compulsory Disclosure –** the applicant will comply with clause 74(2)(d) in the manner provided by that clause by notifying each person to whom the applicant intends to provide professional engineering services that the applicant is not insured in accordance with the minimum requirements of the clause, and obtain the client's written acknowledgment of this disclosure .

[5] APEGNB states that companies practising for internal consumption purposes only are typically not required to have a Certificate of Authorization, but there are exceptions. The requirement for a CoA is for firms where the public reasonably expects that the firm performs engineering work. Typically, this applies to firms doing fee-for-service engineering for the public. For manufacturing firms, this might include the engineering performed in-house or on-site on a manufactured product which would be used by the public.

[6] Provincial ministries don't appear to be regulated, but Newfoundland Power Inc, a public utility, has a permit to practice.

Consultation Summary Report

Advisory Task Force on Corporate Practice

Professional Engineers and Geoscientists of BC

Advisory Task Force on Corporate Practice:

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Prepared for: APEGBC Members and Stakeholders
Prepared by: APEGBC Advisory Task Force on Corporate Practice
Version date: March 10, 2017

Executive Summary

The Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) is the regulatory body that oversees the practice of professional engineering and geoscience in BC. In the fall of 2015, APEGBC's Council established an advisory task force of APEGBC members representing a broad range of disciplines, organizations, and industries to lead an examination of corporate practice and corporate regulation. As part of their examination, APEGBC's Council asked the task force to make a recommendation on whether APEGBC should pursue regulatory authority over corporate practice and if so, to define the types of organizations that should be subject to regulation.

Over the last year, APEGBC and the task force has engaged in a thorough consultation with members and stakeholders on the topic of corporate practice and corporate regulation. This report outlines the consultation activities that took place and summarizes what was heard. Key topics of discussion and feedback are summarized in this Executive Summary and details can be found in the body of the report and appendices.

Key Topic #1: Why Corporate Regulation? The task force heard a range of opinions from members and stakeholders on whether APEGBC regulatory oversight over engineering and geoscience organizations (referred to as 'corporate regulation' for short) is needed to sufficiently fulfil the duty of engineers and geoscientists to uphold and protect the public interest with respect to the practice of the professions. Members that did see a need for corporate regulation indicated that organizations have an influence on the practice of the professions and therefore regulatory oversight is needed to encourage positive organizational behaviour and discourage negative behaviour. Members that did not see the need for corporate regulation tended to view corporate regulation as redundant with the existing regulation of individual professionals and saw the existing regulatory system as sufficient. In a Fall 2016 survey of members, out of a total of 1,299 survey respondents[1], 67% indicated that there is an organizational influence on their practice and 27% indicated that there is no organizational influence (6% selected 'other').

Key Topic #2: Benefits of Corporate Regulation. Through surveys, emails, and consultation events, members and stakeholders weighed in on corporate regulation. Some of the potential benefits that were highlighted the most frequently included:

- corporate regulation could address current issues with the practice of engineering and geoscience in BC that have implications for public protection;
- corporate regulation could increase public and government confidence in the professions by strengthening the self-regulatory system;
- corporate regulation could bring greater awareness and support from employers for the responsibilities of professionals; and,
- corporate regulation could increase the value of the APEGBC regulatory system to individual professionals.

[1] Note that not all respondents reply to every question, so the total number of respondents for each question can be lower than the total number of respondents for the survey.

Key Topic #3: Concerns with Corporate Regulation. Some of the concerns with corporate regulation that were highlighted most frequently included:

- corporate regulation may not be effective in enhancing public protection (due to challenges with enforcing regulatory requirements);
- cost and effort for compliance—especially for small companies/sole-practitioners and organizations practising in multiple jurisdictions;
- corporate regulation may not add additional value to the practice of the professions;
- corporate regulation could dilute individual professional responsibility; and,
- lack of confidence in APEGBC's ability to administer corporate regulation effectively.

Key Topic #4: Regulatory Coverage. In consultation materials and events, the task force outlined the full range of organizations that practise engineering and geoscience in BC and invited feedback from members and stakeholders on which types of organizations should be covered by a regulation if corporate regulation is pursued. In the fall 2016 survey of APEGBC members, out of 1,300 respondents:

- 71% agreed that **consulting firms** should be covered by a corporate regulation administered by APEGBC;
- 59% agreed that *all* **public sector organizations** that practise engineering and geoscience should be covered, while 16% thought *some* public sector organizations should be covered;
- 42% agreed that *all* **organizations that practise solely for internal consumption purposes** should be covered, while 17% thought *some* of these organizations should be covered;
- 51% indicated that they do not think **sole-practitioners** should be covered by corporate regulation.

Key Topic #5: Regulatory Model. In consultation materials and events, the task force discussed that realizing the potential benefits of corporate regulation and addressing concerns is dependent on the design of a corporate regulatory model–e.g., the regulatory requirements, and how these requirements are enforced. Reoccurring advice and suggestions from members and stakeholders on the development and implementation of a corporate regulatory model for engineering and geoscience organizations included:

- regulatory model must add value to the practice of the professions;
- minimize additional fees and administrative effort for small organizations and sole-practitioners;
- strong enforcement mechanisms are needed (e.g., protection or support for whistleblowers);
- minimize impact to APEGBC existing Organizational Quality Management (OQM) Program (a voluntary certification program for engineering and geoscience organizations);
- use OQM to inform the development of a corporate regulatory model (e.g., consider if all or a subset of OQM certification requirements could be used as regulatory requirements);
- implement a cost-recovery model for corporate regulation (e.g. the one used in the OQM Program); and,
- unify corporate regulatory systems for engineering and geoscience across Canadian jurisdictions.

The task force is now in the process of reviewing and discussing the consultation results and formulating their recommendations to APEGBC's Council. A final report with the task force's recommendations will be submitted to APEGBC's Council in the spring of 2017.

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APEGBC and the Advisory Task Force on Corporate Practice
Consultation Summary Report

1. Introduction

The Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) is the regulatory body that oversees the practice of professional engineering and geoscience in the province of BC. It is the duty of APEGBC to uphold and protect the public interest respecting the practice of professional engineering and the practice of professional geoscience (*Engineers and Geoscientists Act*, Section 4.1 (1)(a)). In the fall of 2015, APEGBC's Council established an advisory task force of APEGBC members representing a broad range of disciplines, organizations, and industries to lead an examination of corporate practice and corporate regulation. As part of their examination, APEGBC's Council asked the task force to make a recommendation on whether APEGBC should pursue regulatory authority over corporate practice and if so, to define the types of organizations that should be subject to regulation.

Over the last year, APEGBC and the task force have engaged in a thorough consultation with members and stakeholders on the topic of corporate practice and corporate regulation. This report outlines the consultation activities that took place and summarizes what was heard. The task force is now in the process of reviewing and discussing the consultation results and formulating their recommendations to APEGBC's Council. A final report with the task force's recommendations will be submitted to APEGBC's Council in the spring of 2017.

What is Corporate Practice and Corporate Regulation?

The term **corporate** in this document and initiative is used in a broad sense to refer to *all organizations* in both the private and public sectors, including any type of legal entity formed for business purposes (e.g., corporations, partnerships, sole proprietorships) and any type of public entity (e.g., municipalities, crown corporations, ministries). The term **corporate practice** refers to the provision of engineering or geoscience services and products by organizations. The term **corporate regulation** refers to the licensing and regulation of organizations authorized under legislation.

Corporate regulation would likely involve the prohibition of organizations practising engineering and geoscience unless they have a licence from a regulating authority (e.g., APEGBC), or are a type of organization that is not required to have a licence. For most jurisdictions in Canada, such licences mean that regulated organizations need to comply with the engineering or geoscience legislation of the jurisdiction and the Code of Ethics and bylaws issued by the regulating authority. Across jurisdictions, there are also a variety of other requirements and responsibilities of licence holders (for more information, see the task force's Discussion Paper).

2. Consultation Activities

Consultation was conducted in two stages (Figure 1). Stage 1 (June to August 2016) focused on early input from members and stakeholders to understand the issues and help guide the development and assessment of different regulatory models to explore during the review. Stage 2 (October 2016 to February 2017) focused on more detailed input from members and

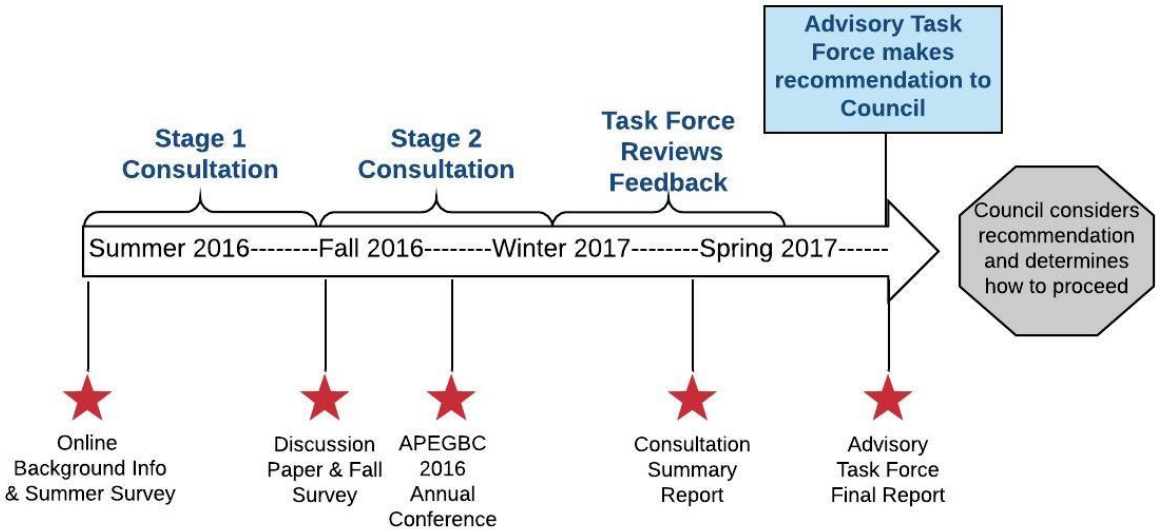
stakeholders on their preferences for non-regulatory and regulatory options for corporate oversight.

During the stage 1 consultation period, updates and background information on the Corporate Practice Review were made available on APEGBC's Corporate Practice website and in APEGBC's Enews. The task force solicited members and stakeholders for feedback on the potential benefits and challenges associated with corporate regulation through an online survey, which ran from July 6, 2016 to Aug. 31, 2016. As this was an initial survey to inform and shape future task force and engagement activities, the survey had a more limited promotion and received 312 respondents. The survey was promoted through two editions of APEGBC's Enews and direct emails to top employers of engineers and geoscientists. During Stage 1, the task force also interviewed representatives of engineering and geoscience regulatory associations across Canada to learn about the corporate regulatory models that are operating in other provinces and territories. In addition, the task force received information from APEGBC on their voluntary certification program for engineering and geoscience organizations, the Organizational Quality Management (OQM) Program.

To kick-off the stage 2 consultation period, the task force published a discussion paper and held a webinar to summarize their learnings and discussions to date and outline options for the potential regulation of engineering and geoscience organizations. The discussion paper was paired with an online survey to get feedback from membership on key questions regarding corporate practice and corporate regulation. The survey was open from Sept. 26 to Nov. 30, 2016 and was promoted through consultation presentations, APEGBC publications, social media, direct correspondence to key stakeholders, and two direct emails to membership. The survey received 1,307 respondents. In addition to the online survey, members provided feedback through direct correspondence, in-person consultation events at the 2016 Annual Conference in Victoria and branch meetings held across the province.

A detailed list of consultation activities can be found in Appendix 1.

Figure 1: Consultation Timeline



3. What We Heard

The following sections provide a summary of what was heard on key topics within the consultation process, including:

- the reasons APEGBC is considering seeking regulatory oversight over organizations that practise engineering and geoscience;
- the key benefits and concerns with corporate regulation;
- what types of organizations should be covered; and
- the advantages and disadvantages of different corporate regulatory models.

More detailed information on survey results and written comments received via email can be found in the appendices to this report.

To summarize what was heard during this consultation process, an independent consultant provided support to the task force. The feedback was first organized according to the topic (e.g., key benefits, key concerns etc.). Within each topic, the feedback was analysed to identify the range of opinions on an issue and recurring themes. Where helpful, direct quotes have been included in this report to illustrate a common theme. These quotes were chosen because they provide a well-articulated representation of a common theme.

The survey results presented in the following sections represent anonymous feedback from APEGBC members. The survey software is able to check if multiple survey responses are submitted through the same IP address; while it is difficult to say with 100% certainty that no duplicate surveys were received, there is no indication that any member submitted multiple survey responses. It should be noted that not all respondents replied to every question, so the total number of respondents for each question can be lower than the total number of respondents for the survey.

3.1 Why Corporate Regulation?

Key discussions within the task force and throughout the consultation were: does APEGBC need regulatory oversight over corporate practice to sufficiently fulfil its duty to uphold and protect the public interest? And, what problem, specifically, would corporate regulation fix?

Members weighed in on these questions through written comments in emails and surveys and live discussions at consultation events with two diverging perspectives emerging: one clearly seeing the need for APEGBC regulatory authority over corporate practice, and the other questioning its necessity.

Members who did not see the need for corporate regulation tended to view corporate regulation as redundant with the existing regulation of individual professionals, and saw the existing regulatory system as sufficient for protecting public interest with respect to the practice of the professions. Some members holding this view acknowledged that there is an organizational influence on individual practice, but that it is the duty of individual professionals to ensure that professional standards are not compromised because of organizational interests/pressures. As well, some members emphasized that based on their experience they did not see a problem or regulatory gap that would be fixed with corporate regulation. Rather, any problems with not

complying with the APEGBC Code of Ethics and Bylaws could be addressed through the existing regulatory system of individual professionals and therefore APEGBC should focus on improving this regulatory system instead of pursuing a new regulatory system.

Members who did see a need for corporate regulation indicated that organizations have an influence on the practice of the professions and therefore regulatory oversight is needed to encourage positive behaviour and discourage negative behaviour. An email received from one such member is included in the text box below and is illustrative of this viewpoint. [2]

Email from a member regarding Corporate Practice Review
Received: September, 2016

Broadly, there are two major concerns—pressure placed on employees to act unprofessionally and unprofessional behaviour by organizations practising engineering.

Pressure on employees
Employers can (and sometimes do) put pressure on registered engineers to approve (seal, sign) designs and documents which the engineer may consider inappropriate, inferior or even entirely unworkable. The motivation can be to save the client money, particularly on environmental, health or safety requirements for which the client feels there would be no economic payback. In my experience individuals representing the employer and applying such pressure may, occasionally be registered engineers or geoscientists. Opposition to such pressure can have consequences for one's employment.

Clients can (and sometimes do) place pressure on registered engineers to approve and seal designs and documents with which the engineer disagrees or with which they have not been involved. In the case where the registered engineer is an employee of a consulting company, clients can (and sometimes do) ask the employer to place pressure on the registered engineer. (I have personally sought legal support against my employer in such a case.)

Unprofessional behaviour by organizations
Organizations may assign professionally unqualified employees to undertake an engineering task. In this case the onus is entirely on the employee to refuse the assignment which can often lead to unfavourable treatment and even dismissal. Registered engineers are, of course, required by the Engineers [and Geoscientists] Act to refuse such assignments but unregistered (and sometimes entirely unqualified staff) may be persuaded to undertake the task. Sometimes little persuasion is necessary because unregistered individuals understand that they have no responsibility for errors in their work.

Organizations, including government organizations, may chose to ignore professional advice particularly on environmental and safety issues but also on designs, installations and system operation. This puts the onus on the professional individual providing the advice (often an employee) to carefully document the situation to defend himself in the event of a failure, accident or injury. In this case, it should be the responsibility of the employer of the professional engineer or geoscientist to support the individual professional.

[2] See Appendix 3, written comments for question #16 in the Fall 2016 survey for more information on reasons why members oppose or support corporate regulation.

Organizational Influence

In the two surveys on corporate practice and corporate regulation, the task force sought further information on organizational influence and the potential effect of corporate regulation. In the survey undertaken in the summer of 2016, the task force asked whether respondents were aware of issues occurring because of a lack of regulatory oversight of organizations that practise engineering and geoscience.

Out of a total of 312 survey respondents, **56% of respondents indicated that they were aware of issues that indicated an organizational influence was having a negative impact on professional practice.**

This includes issues such as:

- lack of support from an employer for doing what is necessary for proper professional practice;
- cutting corners with respect to professional practice for the benefit of organizational interests;
- difficulty balancing responsibilities as a professional engineer/geoscientist/licensee and responsibilities as an employee of a business/organization;
- hiring engineers or geoscientists that are not qualified for the work;
- insufficient supervision and training of inexperienced workers;
- lack of awareness of senior staff of quality assurance procedures.

44% of survey respondents indicated that they have never experienced or seen organizational influence that diminishes the quality of individual professional practice.

In the second survey undertaken in the fall of 2016, the task force asked “based on your experience at your current workplace, does organizational influence have some effect on your practice (either positively or negatively)?”

Out of a total of 1,299 survey respondents for this question, **67% indicated that there is an organizational influence on their practice and 27% indicated that there is no organizational influence** (6% selected ‘other’).

In the summer 2016 survey, the task force received several written comments suggesting that organizational influence can be better addressed through the current system and with the practice review program rather than implementing a new regulatory program. These comments emphasized that while there is an organizational influence on corporate practice, this influence does not necessarily need to be addressed through regulatory oversight over organizations—it could be addressed by strengthening the oversight over individual professionals and increasing the potential for compliance action if individual professionals put organizational interests before professional practice standards. The task force followed up this line of thinking with a question in the fall 2016 survey: “Compared to implementation of corporate regulation on all (or a subset of) organizations practising engineering and geoscience, do you think that increasing the number of individual practice reviews could achieve similar benefits for public protection?”

Out of 1,301 respondents, **15% stated "Yes – Increasing the number of individual practice reviews could achieve similar benefits for public protection compared to corporate regulation.**

In addition to the two surveys, the task force sought information on organizational influence from APEGBC's Organizational Quality Management Program. This program undertakes quality management audits of the organizations that are voluntarily certified through the program. The task force heard from OQM Program staff that results of these quality management audits indicate a need for improving quality management practices at an organizational level, and thus indicate a strong link between organizational influence and the quality of practice.

Regulatory Requirements

The fall 2016 survey sought members' views on whether they agreed with some of the existing regulatory requirements that are in place in other Canadian jurisdictions for engineering and geoscience organizations. Overall, members indicated a high degree of agreement with these corporate regulatory requirements (see Table 1).

Table 1: Fall 2016 Survey, Questions #3 to #7

Survey Question	Survey Results			Total # of Respondents
	Agree	Disagree	Undecided or neutral	
Question #3: *"To what extent do you agree that owners or senior managers of all (or a subset of) organizations practising engineering and geoscience should have responsibility for maintaining an organization where professional practice can be conducted in alignment with the requirements of the Engineers and Geoscientists Act, Code of Ethics and Bylaws?"*	84%	9%	7%	1,302
Question #4: *"To what extent do you agree that APEGBC should have the authority to investigate all (or a subset of) organizations practising engineering and geoscience in the event of a complaint or an incident?"*	71%	18%	11%	1,301
Question #5: *"To what extent do you agree that all (or a subset of) organizations practising engineering and geoscience should be required to retain project documentation and make this documentation available in the event of an investigation by APEGBC?"*	81%	9%	10%	1,301

Survey Question	Survey Results			Total # of
Question #6: *"To what extent do you agree that APEGBC should have the authority to verify that all (or a subset of) organizations practising engineering and geoscience have at least one APEGBC professional engineer, geoscientist, or licensee on staff that has the appropriate qualifications for the organization's area of practice?"*	83%	11%	6%	1,298
Question #7: *"To what extent do you agree that all (or a subset of) organizations practising engineering and geoscience in BC should be responsible for implementing and following organizational quality management procedures that facilitate and support individual compliance with APEGBC's Code of Ethics and Bylaws?"*	69%	15%	16%	1,300

3.2 Key Benefits

A key purpose of the consultation was to compile a comprehensive list of the potential benefits and concerns with respect to corporate regulation. A list of the potential benefits that were highlighted most frequently by members and stakeholders are included below along with some select quotes from the membership surveys for additional context.

- **Current issues with the practice of engineering and geoscience in BC having implications for public protection could be addressed:**
  - *"I owned an incorporated engineering company offering services to the public for 24 years in Ontario before coming to BC and had practiced easily under their corporate regulatory model during that time. Since coming to BC, I have worked only part time in the structural residential inspection field and have become so disillusioned with the lack of professional practice that I have quit working in that field entirely. There is absolutely no doubt in my mind that BC requires corporate regulation and it should be established as quickly as possible."*
  - *"Professional Engineers working in small companies are under immense pressure to deviate from the codes and ethics when it conflicts with business goal/mandate. APEGBC's jurisdiction/oversight on organizations will provide the necessary support to young practicing engineers to stick to code and ethics when their decisions impact public safety."*
  - *"This corporate regulation is really important. There are presently consulting companies where management is not aligned with APEGBC objectives and it makes it very difficult for PEng employees to uphold the high quality they would like to deliver. Too often, the pressure is to cut corners and deliver the minimum quality product that will meet code. At times it requires fighting to convince them to meet minimum requirement. Eventually the PEng either quits or is fired for not being "cooperative". It makes it a very unhealthy work environment and puts public at risk if they take out too much of the safety margin."*

  - *"Need to ensure organizations understand that practicing engineers must only practice in their own field. Many do not."*
  - *"Currently, customers must evaluate the qualifications of a firm to provide professional services. Customers are not generally qualified to do so."*
- **Increased public and government confidence in the professions through strengthening of self-regulatory system:**
  - *"It is about time that the APEGBC regulated the industry to ensure that not only its members but that organizations involved in engineering and geoscience practices were following best practices and ensuring the public that our industry can actually self regulate itself."*
  - *"This seems an appropriate due diligence step to protect the right to self-regulation given recent events in Québec and here in BC with realtors. I do not think we have the same level of potential or perceived dysfunction as the real estate sector, but our standard of care should also be much higher."*
- **Greater awareness and support for the responsibilities of professionals from employers:**
  - *"Places some burden directly on companies to act ethically and in the interest of the public, whereas currently that generally lies only with individual engineers."*
  - *"Corporate regulation would increase a firm's willingness to (1) supply greater resources to defend individual engineers accused of unprofessional work and (2) support continuing education and learning."*
  - *"Corporate regulation could prevent organizations from coercing engineers to take shortcuts or ignore public safety because of purely monetary reasons."*
- **Increased value of APEGBC regulatory system to individual professionals:**
  - *"Empowerment of APEGBC Professionals within organizations where corporate practice conflicts with a Members professional practice."*
  - *"Would provide a regulatory framework/assistance allowing SME/principal engineers to 'push back' on undue influence from executive/sales/customer management within difficult/complex projects."*
  - *"Increased recognition of the value of APEGBC to its individual members as this would provide them with better employers!"*
  - *"I am pro regulation of the corporate practice of Engineering and Geoscience. By doing so, this will stress the importance of the Act and the duties of Engineers and Geoscientists to the corporation's management. This will also allow APEGBC stricter regulation on the use of the Engineer and Geoscientist title individually at through use in a company title or name."*
  - *"Increased regulatory efficiency—if there is a pattern of poor work you can change the organization, rather than a disparate number of individuals."*

Some comments raised concern that regulation over corporate practice may be inevitable given the fact that every province and territory in Canada regulates engineering and geoscience organizations under a mandatory legislated authority except BC and Quebec, and in addition, Quebec's engineering profession will likely pursue corporate regulation as it is recommended in

the Charbonneau Commission's Final Report (published in 2015).[3] For members who saw corporate regulation as inevitable, they viewed it as beneficial for APEGBC to be proactive in proposing a model to the BC Government as opposed to a model being dictated to the profession in the future.

3.3 Key Concerns

During the consultation process, a wide range of concerns were heard in regards to pursuing regulatory oversight over engineering and geoscience organizations by APEGBC. The concerns raised consistently throughout the consultation process are summarized below along with some select quotes from the membership surveys that provide more context to the concern.

- **Corporate regulation will not be effective in enhancing public protection:**
    - *"This additional layer of regulation will not ensure bad things won't happen within companies. I doubt there is significant data to support a plague of bad and unethical behavior exists. There is nothing to show that you can regulate corporate responsibility to make it better. People are not robots and do not behave reliably in certain conditions. If they are going to misbehave, regulation will not stop them. This only adds cost and inefficiency for all those companies who would otherwise not need regulation. I believe almost all the firms to be regulated have no need for this."*
    - *"I question the effectiveness of this at protecting the public when we are already struggling with properly regulating/disciplining individuals. Perhaps a more rigorous discipline program with meaningful penalties would have a greater effect?"*
    - *"I worked for years in Alberta for a large engineering consulting firm. Aside from seeing the APEGA Permit in the main boardroom, I did not see how the APEGA requirement affected day-to-day operations. If APEGBC pursues corporate oversight—something I strongly support—please ensure that the oversight is of real substance and non-compliance has real consequences."*
- **Cost and effort for compliance–especially for small companies/sole-practitioners and organizations practicing in multiple jurisdictions:**
    - *"Small practices already have a host of things to comply to. Their efforts should be invested in meeting current requirements and guidelines. Additional regulation is just another administrative burden that will provide little to no benefit to public safety. For large corporate firms this may be different."*
    - *"We are Professional Engineers and don't need more regulations. For those who are charlatans or negligent make the penalty more severe. I can't imagine having to add to my administrative burden and still make a profit."*
    - *"For small companies and sole practitioners additional costs related to company licencing are proportionally larger than for larger organisations. If we must have this licencing program (which I'm still not convinced we really need), fee should be proportional to the number of P.Eng.s working for the organisation."*

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[3] See the following link for a translation of the Charbonneau Commission's recommendations related to the regulation of professional orders: https://engineerscanada.ca/sites/default/files/charbonneaurecom27-30et39-40-eng.pdf

- **Corporate regulation will not add value to the practice of the professions:**
  - *"I am registered in Alberta, Ontario, Saskatchewan and the NWT, all of which have some form of corporate practice requirement/fee. I have not seen any benefit to the company I work for or to me as an individual from this. Based on my experience I do not see any reason why BC should follow the same model."*
  - *"We practice in Alberta and Ontario. To-date we have seen no association involvement and no benefit from the corporate registration that is required in each of these provinces. Arguably this is because we are working in accordance with the applicable guidelines but it feels more like another grab for money that doesn't really accomplish anything."*
- **Corporate regulation could dilute individual professional responsibility:**
  - *"For me the major issue is the potential ability for the individual to hide behind the corporate shield. If something were to go wrong, who holds the liability? …"*
  - *"It is important to clearly outline and distinguish the professional responsibilities and liabilities at both corporate and individual levels. Professionals should not feel that they have any less responsibility as corporate employees and corporations should not be any less responsible than individual professionals. This will be successful if it helps provide consistent level of responsibility for individuals and corporations."*
  - *"…I fear individual engineers could be confused into believing that they are less responsible, whereas I believe that individual accountability is the key to excellence in engineering. I would encourage clear messaging that the intent in the licensing is to regulate the professionals working for an organization and ensure support of those professionals but not to transfer responsibility from individuals to organizations…"*
- **Lack of confidence in APEGBC to administer corporate regulation effectively:**
  - *"I fear APEGBC has enough to handle at this current time adding to the association additional requirements may only dilute certain active initiatives the organization is managing."*
  - *"Not confident that APEGBC can implement a successful system."*

The above comments demonstrate the wide range of important considerations in determining whether APEGBC should pursue corporate regulation. In developing their recommendations, the task force is examining the facts and arguments around each of the potential benefits and concerns with corporate regulation and will address them in their final report to APEGBC's Council.

3.4 Regulatory Coverage

The task force has been asked by APEGBC's Council to make a recommendation on whether APEGBC should pursue regulatory authority over corporate practice and if so, to define the types of organizations that should be subject to regulation. The fall 2016 survey asked members to identify which types of organizations should be covered by corporate regulation if it is pursued. The highest proportion of respondents agreed that consulting firms should be covered (71%) followed by public sector organizations and organizations that practice solely for internal consumption purposes. The majority of respondents (51%) indicated that they do not think sole-practitioners should be covered by a corporate regulation (see Table 2).

The fall 2016 survey also asked respondents for the reasons they believed sole-practitioners, organizations that practice solely for internal consumption purposes and public sector organizations should or should not be covered by corporate regulation. The main reasons that respondents provided are included in Table 3.

Table 2: Fall 2016 Survey, Questions #9-#13, *What types of organizations should be covered?*

Type of Organization	Survey Response			Total # of Respondents
	Yes	No	Don't Know or Undecided	
Consulting Firm	71%	20%	9%	1,296
Sole practitioners	42%	51%	7%	1,297
Organizations that practice solely for internal consumption purposes	42% (all) / 17% (some)	29%	12%	1,296
Public sector	59% (all) / 16% (some)	18%	6%	1,300

Table 3: Fall 2016 Survey, Questions #10-#13, *What is the main reason you think corporate regulation should or should not apply to this type of organization?*

Type of Organization	Main Reasons for including organization type	Main Reasons for excluding organization type
Sole practitioners	Sole practitioners are the owners of a business organization and therefore should align the responsibilities of their business with their own responsibilities as a professional.	Current regulatory system is sufficient for sole practitioners—with only one person involved in the organization, there would be no conflict between professional and corporate objectives.
Organizations that practice solely for internal consumption purposes	The practice of engineering and geoscience in these organizations has implications for public safety, human health and the environment.	Regulating engineering services in product companies is redundant as the ultimate regulation for product quality and safety needs lies with the product itself and/or through processes (such as ISO 9000 certification) that are driven by upstream consumers.
Public sector	The practice of engineering and geoscience in these organizations has implications for public safety, human health and the environment.	Public sector organizations are sufficiently regulated. There's not enough added value for regulating these organizations to justify the additional costs and bureaucracy.
Note: A more detailed summary of results for questions #10 to #13 is available in Appendix 3.		

3.5 Corporate Regulatory Models

To investigate the potential benefits and challenges of regulating engineering and geoscience organizations, the task force undertook a review of potential corporate regulatory models. This was only a preliminary review of corporate regulatory options as the task force has only been mandated to advise on whether APEGBC should seek regulatory authority over corporate practice and to define the types of organizations, if any, that should be subject to APEGBC regulatory oversight. The results of this review were written up in the task force's discussion paper to inform the consultation process and seek feedback from members and stakeholders on if there is a preferred approach to corporate regulation. If APEGBC's Council decides to seek regulatory authority over corporate practice, a more comprehensive evaluation of options for corporate regulation will be needed and the provincial government will need to initiate any changes to the *Act.*

The main finding of the review was that there are two distinct approaches that could be taken to regulating engineering and geoscience organizations, which the task force labelled a "basic model" and a "quality-management focused model." A more fulsome description of these models can be found in the discussion paper and a summary description is included the text boxes below.

The fall 2016 survey described the differences between these two models and asked members: "If APEGBC decides to seek regulatory authority for corporate practice, do you think a basic model for corporate regulation or a quality management focused model should be applied?"

Out of 1,293 respondents, **44% selected the basic model, 30% selected the quality-management focused model and 26% selected either "don't know or undecided" or "other."**

Corporate Regulatory Models – Basic

The **basic model** is representative of what most other Canadian jurisdictions have in place for engineering and geoscience organizations (e.g., SK, MB, YK, NWT and NU, ON, PEI, NL). The requirements to receive a permit/certificate in a basic model are completion of an application form and payment of a fee. A few jurisdictions also require the submission of supporting documents. The basic model provides the following functions:

- prohibits the practice of professional engineering and geoscience by regulated organizations unless they obtain a permit/certificate;
- provides for a registry of regulated organizations practising engineering and geoscience in the jurisdiction;
- ensures regulated organizations employ professional engineers, geoscientists, and/or licensees;
- specifies the responsibility of regulated organizations to comply with the *Act* regulating engineering and geoscience in the jurisdiction, and the Bylaws and Code of Ethics of the regulatory authority;
- designates corporate representatives that assume some responsibility for supporting corporate practice that complies with the *Act*, Bylaws and Code of Ethics;
- provides the regulatory association the authority to investigate regulated organizations in the event of an incident or complaint and the authority to require the production of relevant documents to inform the investigation.

Corporate Regulatory Models – Quality-management Focused

A **quality-management focused model** includes all of the functions of the basic model and adds requirements and compliance mechanisms to proactively encourage good practice and reduce risks to public safety, public health, the welfare of the public and the environment. The only corporate regulation in Canada for engineering and geoscience organizations that applies a quality-management component is in Alberta.

BC's voluntary OQM Program also provides ideas for what additional requirements and compliance mechanisms could look like in a quality-management focused corporate regulatory model. The OQM program certifies participating organizations only after they have developed processes and procedures for quality management that meet the standards established by the program. Processes and procedures are implemented in seven areas: (1) APEGBC practice guidelines, (2) retaining project documentation, (3) checking engineering and geoscience work, (4) independent review of structural designs, (5) use of APEGBC seal, (6) direct supervision, and (7) field reviews.

Both Alberta's corporate regulatory model and the OQM Program use audits to verify compliance. If issues are identified in the audits, the associations enter into proactive discussions on how the issue can be resolved.

The main reason provided for supporting the basic model was that it addresses the fundamental concerns with limited additional bureaucracy (e.g., aligning responsibilities of organizations and professions, providing a mechanism to hold organization to account in the event of an incident or complaint). The main reason provided for supporting a quality management focused model was that it would demonstrate the professions are being proactive, and would enhance the reputation of the professions, which both contribute to APEGBC's objective of demonstrating that it can operate in a self-regulatory manner (see results for fall 2016 survey question #15 in Appendix 3 for more detail).

In addition to the quantitative results from surveys, the task force received numerous pieces of advice and suggestions for developing a corporate regulatory model through written comments in surveys and emails and discussions at consultation events. Recurring advice and suggestions from members and stakeholders on the development and implementation of a corporate regulatory model for engineering and geoscience organizations is summarized below:

- **Must add value:** Ensure the design and implementation of corporate regulation provides added value to the public and the professions and is not just a fee-grab.
- **Minimize additional fees and administrative effort on small organizations and sole-practitioners:** Small organizations and sole-practitioners are already having challenges with the various fees required to practise and run a business, especially if they practise in multiple jurisdictions. Consider a sliding scale for fees based on the size of organization (which could be defined by the number of professionals employed or billings/revenue), and consider an exemption on fees for sole-practitioners if they are covered by the regulation.

- **Need strong enforcement mechanisms:** Unless regulatory requirements are effectively enforced, they will not have their intended effect to protect the public. Non-compliance needs to have real consequences.
- **Need protection or support for whistleblowers:** If a professional is faced with the choice of doing a) something against the Code of Ethics or b) losing their job/contract, there needs to be a mechanism to support them.
- **Minimize impact to OQM Program:** Ensure corporate regulation does not negatively impact what has been achieved with the OQM program. Take care that corporate regulation interacts well with OQM, including avoiding the duplication of fees for organizations that are OQM certified and are covered by corporate regulation.
- **Use OQM to inform the development of a corporate regulatory model:** Consider making OQM mandatory. It has proven that it is a value-added program for the practice of professions and to the protection of the public. For instance, some or all of OQM's certification requirements could be used as regulatory requirements in a corporate regulatory model administered by APEGBC.
- **Implement a cost-recovery model similar to OQM:** A corporate regulatory system should not generate additional funds for APEGBC over and above the cost of administering the system. Consider a cost-recovery model similar to the one implemented in APEGBC's OQM program that also includes a sliding scale based on the number of professionals employed by an organization.[4]
- **Unify corporate regulatory systems for engineering and geoscience across Canadian jurisdictions:** To reduce fees and administrative effort for organizations practising in multiple jurisdictions, unify the corporate regulatory systems across Canada—for example through reciprocating agreements to allow engineering and geoscience to be done in different provinces/territories under a single license.

4. Next Steps

The task force is currently in the process of reviewing consultation feedback and formulating their recommendations to APEGBC's Council. A final report with the task force's recommendations will be submitted to APEGBC's Council in the spring of 2017. APEGBC's Council will then review the recommendations and decide how to proceed with respect to corporate practice and corporate regulation. Members and stakeholders will have further opportunities to engage if regulatory oversight over corporate practice is pursued further by Council. Updates on the Corporate Practice Review will be posted on the APEGBC website at apeg.bc.ca/corporatepractice as they become available.

Appendices

See companion report for the following appendices:
Appendix 1 – Detailed List of Consultation Activities
Appendix 2 – Summer 2016 Survey Results
Appendix 3 – Fall 2016 Survey Results

[4] Note – the OQM formula for determining annual fees of a participating organization is 200 multiplied by the square root of the number of professionals employed by the organization.

Consultation Summary Report
Appendices 1 to 3

Advisory Task Force on Corporate Practice

Professional Engineers and Geoscientists of BC

Advisory Task Force on Corporate Practice:

Mike Currie, P.Eng., FEC (Chair)
Patricia Chong, P.Eng.
David Chwaklinski, P.Eng., FEC
Dr. Michael Davies, P.Eng./P.Geo.
Catherine Fritter, P.Eng.
Kathy Groves, P.Eng.
Adrian Gygax, P.Eng., Struct. Eng.
Scott Martin, P.Eng.
David Melville, P.Geo.
Andy Mill, P. Eng., Struct.Eng., FEC
Ed Miska, P.Eng.
Dirk Nyland, P.Eng.
Julius Pataky, P.Eng.
Gregory Scott, P.Eng.
Colin Smith, P.Eng., FEC, FGC (Hon.)
John Turner, P.Ag. (Ret.)
Selena Wilson, P.Eng.

Prepared for: APEGBC Members and Stakeholders
Prepared by: Advisory Task Force on Corporate Practice
Version date: March 10, 2017

Table of Contents

Appendix 1 – Detailed List of Consultation Activities

Input Category	Item	Description
Member and Stakeholder Surveys	Summer 2016 Survey	See Appendix 2 for the Summer 2016 Survey results. This survey was open from July 6 to Aug. 31, 2016, and had 312 respondents.
	Fall 2016 Survey	See Appendix 3 for the Fall 2016 Survey results. This survey was open from Oct. 4 to Nov. 30, 2016 and had 1,307 respondents.
Publications on the Corporate Practice website, *Innovation, Enews*	Backgrounder	On June 6, 2016, APEGBC published a 4-page backgrounder on the examination of corporate practice.
	Discussion Paper	On September 26, 2016, the advisory task force published their Discussion Paper on corporate practice and corporate regulation.
	Innovation	Articles on the corporate review appeared in the June 2015, March 2016, May 2016, and April 2016 issues of *Innovation.*
	APEGBC ENews	Updates on the corporate practice review were included in Enews distributions.
Emails from membership	Emails to corporatepractice@apegbc.ca	See Appendix 4 for summary of input received from these emails. 13 substantive emails were received between July 1, 2016 and Dec. 31, 2016.
Outreach to membership	Annual Conference 2016	A presentation based on the task force's Discussion Paper was provided on Oct. 21, 2016. About 30 APEGBC members participated in the session.
	Branch Representatives	A presentation on the corporate practice review was given at the Branch Representatives Fall Meeting on Oct. 21, 2016. (Cont'd)

Input Category	Item	Description
	Memos to internal stakeholders	Memos circulated to relevant APEGBC divisions and practice committees November 2016: Building Codes Committee, Building Enclosure Committee, Consulting Practice Committee, DEERE, DEGIRS, DEP, Geoscience Committee, Investigation Committee, MED, OQM Committee, Practice Review Committee, Professional Practice Committee.
	Webinar	The Chair of the task force led a webinar on Oct. 5, 2016. About 70 sites participated in the webinar. The webinar was recorded and made available through APEGBC website.
	Branch Meetings	Branch meetings were held in: • Nanaimo Branch (all member invite), Nov. 3, 2016 • Sea-to-Sky Branch (Branch executive), Nov. 10, 2016 • South Central (Kamloops) (all member invite), Nov. 22, 2016 • Prince George (all member invite), Nov. 30, 2016 • Vancouver Branch (Monthly meeting), Dec. 6, 2016 • Sea-to-Sky Branch, Dec. 15, 2016 • Okanagan Branch, Feb. 1, 2017 • East Kootenay Branch, Feb. 21, 2017 A joint meeting was offered in Burnaby-New Westminster, Tri-Cities, Fraser Valley Joint Branch, Feb. 22, 2017, but cancelled due to low registration.
Outreach to stakeholders	Memos to stakeholders	40 Memos with invitations to complete the online survey or provide a written submission were distributed to targeted stakeholders including municipal and provincial government, associations, utilities, public safety and health authorities, and internal APEGBC committees and divisions. 200 Memos were distributed to OQM certified firms. 42 stakeholders responded to the Fall 2016 Survey. (Cont'd)

Input Category	Item	Description
		Submissions were received from: 1. Association of Consulting Engineering Companies British Columbia (ACEC-BC) 2. British Columbia Securities Commission (BCSC) 3. Union of British Columbia Municipalities (UBCM) 4. Metro Vancouver (staff) 5. BC Hydro 6. AMEBC
	Meetings with the Association of Consulting Engineering Companies BC (ACEC-BC)	The Chair of the advisory task force met with ACEC-BC twice and ACEC-BC representatives presented to the task force at their Dec. 6, 2016 meeting.

Appendix 2 – Summer 2016 Survey Results

This appendix presents the quantitative and qualitative results of the Summer 2016 survey to inform the task force's review of corporate practice. There were 312 respondents to this survey. Not all respondents respond to every question, so the total number of respondents for each question can be lower than the total number of respondents for the survey. To summarize the written comments provided in this report, an independent consultant that is supporting the task force reviewed the written comments and grouped these comments under themes. The number of comments under each theme is provided in the summary tables for written comments below. The task force was also provided the full text of all written comments provided through the survey.

Question #1 – Familiarity

Question #1: *How familiar are you with corporate regulation models for engineering and geoscience organizations used in other jurisdictions in Canada?*

Table 1: Summer 2016 Survey, Question #1, Quantitative Results

Choice		Response Percent	Response Total
1	Very familiar	21%	64
2	Somewhat familiar	46%	143
3	Not familiar	34%	105
Total Respondents			**312**
Total Skipped			18

Question #2 – Benefits

Question #2: *In your opinion, what would be the main benefits of regulation of engineering and geoscience organizations in BC by APEGBC? (Check all that apply)*

Table 2: Fall 2016 Survey, Question #2, Quantitative Results

Choice		Response Percent	Response Total
1	Increased public safety	39%	123
2	Increased public confidence in the profession	49%	152
3	Increased consistency and quality of professional services across all organizations employing APEGBC professionals	49%	152
4	Enhanced reputation and accountability within the profession	42%	132
5	Increased fairness (i.e., level playing field) through consistency of corporate practices that impact the quality of professional engineering and geoscience in BC	42%	131

Choice		Response Percent	Response Total
6	Increased collective learning for the professions through regulatory actions taken	21%	67
7	I see no benefits to regulatory oversight of corporations	29%	89
8	Other. Please specify:	13%	39
Total Respondents			**312**
Total Skipped			18

Table 3: Summer 2016 Survey, Question #2, Written Comments

Written Comments for question: *"In your opinion, what would be the main benefits of regulation of engineering and geoscience organizations in BC by APEGBC?"*	
Comment Theme	**# of Comments**
Corporate regulation will enhance public protection through improving professional practice	18
Other benefits	5
Considerations or questions	8
No benefits - Regulation of individual professionals (and/or OQM) seems sufficient	6
N/A*	2
Total	**39**
*N/A is designated to comments that are not related to the topic of corporate practice or corporate regulation.	

Question #3 – Concerns

Question #3: *What are the main concerns you have with the regulation of engineering/geoscience organizations in BC? (check all that apply)*

Table 4: Summer 2016 Survey, Question #3, Quantitative Results

Choice		Response Percent	Response Total
1	I do not have any concerns at this point	24%	74
2	Dilution of professional responsibility at the individual practice level	30%	94
3	Additional costs to APEGBC to implement and administer a new regulatory system	39%	123

Choice		Response Percent	Response Total
4	Additional requirements to firms that affect their competitiveness	27%	84
5	Additional costs to firms (e.g., registration fees and administrative costs to comply with regulation)	46%	143
6	Increased liability concerns for organizations	17%	52
7	Not enough value added to justify the costs and effort (e.g., value for public protection and the profession)	38%	117
8	Other. Please specify:	14%	45
Total Respondents			**312**
Total Skipped			18

Table 5: Summer 2016 Survey, Question #3, Written Comments

Written Comments for question: *"What are the main concerns you have with the regulation of engineering/geoscience organizations in BC?"*	
Comment Theme	**# of Comments**
Support for corporate regulation (But it needs to be effective)	10
Concern with corporate regulation - APEGBC capacity to effectively implement and enforce	11
Concern with corporate regulation - does not provide the same value as OQM	2
Concern with corporate regulation - Costs and effort to comply, especially for small companies	9
Concern with corporate regulation - No value / Redundancy with existing regulation of individual professionals	7
Unique Comments (cannot group into common theme)	6
Total	**45**

Question #4 – Problem

Question #4: *Are you aware of any of the following that may be a result of a lack of regulatory oversight of engineering and geoscience organizations? (Check all that apply)*

Table 6: Summer 2016 Survey, Question #4, Quantitative Results

Choice		Response Percent	Response Total
1	Lack of support from an employer for doing what is necessary for proper professional practice	36%	111

Choice		Response Percent	Response Total
2	Cutting corners with respect to professional practice for the benefit of corporate interests	37%	114
3	Difficulty balancing the responsibilities of a professional engineer/geoscientist/licensee and responsibilities as an employee of a business/organization	41%	124
4	None apply (I have never experienced or seen organizational influence that diminishes the quality of individual professional practice)	40%	123
5	Other ways you've experienced or seen organizational influence diminish the quality of individual professional practice. Please specify:	17%	52
Total Respondents			**305**
Total Skipped			25

Table 7: Summer 2016 Survey, Question #4, Written Comments

Written Comments for question: *"Are you aware of any of the following that may be a result of a lack of regulatory oversight of engineering and geoscience organizations?"*	
Comment Theme	**# of Comments**
Pressure from employers, managers, and or clients that impacts quality of practice	13
Cutting corners	7
Organizations and/or individuals practicing outside of their area of expertise	6
Insufficient support of professional employees' requirements	4
Only some concern with organizational influence	4
It is duty of individual professionals to not let organizational influence negatively impact professional practice	4
Unique Comments (cannot group into common theme)	10
Total Respondents	**52**

Question #5 – Types of Organizations

Question #5: *Regulatory oversight could be applied to all organizations or a subset of organizations that employ APEGBC professionals and provide services/products requiring the application of professional engineering/geoscience. If the Advisory Task Force were to recommend the regulation of engineering and geoscience organizations in BC, what are the types of organizations that you think should be regulated? (Check all that apply)*

Table 8: Summer 2016 Survey, Question #5, Quantitative Results

Choice		Response Percent	Response Total
1	Sole Practitioners	48%	143
2	Organizations providing consulting engineering and geoscience services	74%	220
3	Organizations carrying out professional activities related to engineering and/or geoscience testing and assessment	66%	196
4	Private sector companies carrying out professional engineering/geoscience for internal consumption purposes involving the manufacturing of custom design products, structures, processes or facilities	48%	144
5	Private and public sector organizations carrying out professional engineering/geoscience for internal consumption purposes (e.g., public utilities, crown corporations, municipal governments, private utility providers)	60%	177
6	Other. Please specify:	21%	61
Total Respondents			**297**
Total Skipped			33

Table 9: Summer 2016 Survey, Question #5, Written Comments

Written Comments for question: *"If the Advisory Task Force were to recommend the regulation of engineering and geoscience organizations in BC, what are the types of organizations that you think should be regulated?"*	
Comment Theme	**# of Comments**
No organizations (opposed to corporate regulation)	25
Other criteria	13
All organizations that practice engineering and/or geoscience	12
All public sector organizations	4
All organizations whose practice of engineering or geoscience could impact	2

public safety, health, and welfare, and the environment.	
All organizations that employ professional engineers and geoscientists	2
N/A*	3
Total	**61**
*N/A is designated to comments that are not related to the topic of corporate practice or corporate regulation.	

Question #6 – Consultation process

Question #6: *The Advisory Task Force will be reviewing the issue of corporate practice and consulting with members and stakeholders for the remainder of the calendar year. The Advisory Task Force will provide a recommendation to APEGBC's Council in early 2017 on whether to pursue regulatory authority for corporate practice. How would you like to be updated and consulted with during the Advisory Task Force's review process? (Check all that apply)*

Table 10: Summer 2016 Survey, Question #6, Quantitative Results

Choice		Response Percent	Response Total
1	Regular updates on APEGBC's Corporate Practice webpage	40%	125
2	Regular updates in *Innovation* magazine	55%	171
3	Newsletters and email updates	76%	234
4	Access to task force meeting summary notes	32%	99
5	Attending a branch meeting with task force members/APEGBC to be updated on the review once the exploratory options have been identified	11%	34
6	Attending a webinar hosted by task force members/APEGBC to be updated on the review once the exploratory options have been identified	22%	68
7	Attending meetings with the task force/APEGBC through your affiliated organizations (e.g., AMEBC, ACEC-BC, etc.)	6%	18
8	Having a dedicated session on corporate practice at the Annual Conference and AGM in October (Victoria)	19%	58
9	Providing input through additional surveys at strategic times throughout the review process	55%	171
10	Providing feedback and comments via email	35%	108
Total Respondents			**309**
Total Skipped			21

Question #7 – Anything else?

Question #7: *Is there anything else that you would like to share about the Advisory Task Force's examination of corporate practice and regulatory models for corporate oversight?*

Table 11: Summer 2016 Survey, Question #7, Written Comments

Written Comments for question: *"Is there anything else that you would like to share about the Advisory Task Force's examination of corporate practice and regulatory models for corporate oversight?"*		
Category	**Comment Theme**	**# of Comments**
Opposition to corporate regulation	Opposed to corporate regulation because the current system is sufficient and/or it is redundant with the existing system of regulating individual professionals.	8
	Opposed because does not have confidence in APEGBC or thinks APEGBC should focus on improving implementation of current programs before developing new programs.	6
Support for corporate regulation	Support for corporate regulation (no reason given).	5
	Support for corporate regulation due to current issues with professional practice in BC	6
	Support for corporate regulation to enhance public protection and/or the value of the professions	6
	Support for proceeding with corporate regulation before the BC government moves ahead with it unilaterally.	2
Concerns with corporate regulation	Concerned with the impact of corporate regulation on small companies and/or sole-practitioners	6
	Concerned that corporate regulation would not be value-added to the public and/or the professions	13
	Concerned that corporate regulation would dilute individual professional responsibility	8
	Concerned that corporate regulation could harm APEGBC's Organizational Quality Management (OQM) Program	2
Other Comments	Input on regulatory coverage or regulatory model	42
	Need to better describe or analyze the problem that corporate regulation would fix	4
	Suggestions for the Task Force Review on Corporate Practice	13
	Unique comments (cannot group into common theme)	21
	No comment or N/A*	12
Total Respondents		**157**
*N/A is designated to comments that are not related to the topic of corporate practice or		

Written Comments for question: *"Is there anything else that you would like to share about the Advisory Task Force's examination of corporate practice and regulatory models for corporate oversight?"*		
Category	**Comment Theme**	**# of Comments**
corporate regulation.		

Questions #8 to #11 – Demographics

Question #8: *Are you an APEGBC member?*

Table 12: Summer 2016 Survey, Question #8

Choice		Response Percent	Response Total
1	Yes	97%	304
2	No	3%	10
Total Respondents			**314**
Total Skipped			16

Question #9: *What is your area of practice?*

Table 13: Summer 2016 Survey, Question #9

Choice		Response Percent	Response Total
1	Engineering	89%	266
2	Geoscience	11%	34
Total Respondents			**300**
Total Skipped			20

Question #10: *What size of organization do you work for?*

Table 14: Summer 2016 Survey, Question #10

Choice		Response Percent	Response Total
1	Sole-proprietorship (1 APEGBC professional)	26%	77
2	2-5 APEGBC professionals	20%	58
3	>5 APEGBC professionals	54%	161
Total Respondents			**296**
Total Skipped			24

Question #11: *What sector do you work in? (Check all that apply)*

Table 15: Summer 2016 Survey, Question #11

Choice		Response Percent	Response Total
1	Aerospace	2%	7
2	Construction	22%	64
3	Consulting Firms	56%	165
4	Provincial government	6%	17
5	Municipal government	7%	21
6	Health care	2%	6
7	High technology	7%	22
8	Manufacturing	9%	26
9	Marine	4%	11
10	Natural resources	24%	72
11	Utilities	16%	48
12	Other	12%	36
Total Respondents			**295**
Total Skipped			25

Appendix 3 – Fall 2016 Survey Results

This appendix presents the quantitative and qualitative results of the Fall 2016 survey to inform the task force's review of corporate practice. There were 1,307 respondents to this survey. Not all respondents respond to every question, so the total number of respondents for each question can be lower than the total number of respondents for the survey. To summarize the written comments provided in this report, an independent consultant that is supporting the task force reviewed the written comments and grouped these comments under themes. The number of comments under each theme is provided in the summary tables for written comments below. The task force was also provided the full text of all written comments provided through the survey.

Question #1 – Familiarity

Question #1: *"How familiar are you with the corporate regulation models for engineering and geoscience organizations used in other jurisdictions in Canada?"*

Table 16: Fall 2016 Survey, Question #1, Quantitative Results

Choice		Response Percent	Response Total
1	Very familiar	15%	190
2	Somewhat familiar	47%	617
3	Not familiar	38%	492
Total Respondents			1,299
Total Skipped			8

Question #2 – Organizational Influence

Question #2: *"Based on your experience at your current workplace, does organizational influence have some effect on your practice (either positively or negatively)? (please skip question if you are not a member of APEGBC)"*

Table 17: Fall 2016 Survey, Question #2, Quantitative Results

Choice		Response Percent	Response Total
1	**Other:** Please specify	6%	73
2	**Yes** – there is an organizational influence on individual practice.	67%	874
3	**No** – there is no organizational influence on individual practice.	27%	347
4	**Skipped** – I am not a member of APEGBC	0%	5
Total respondents			1,299
Total skipped			8

Table 18: Fall 2016 Survey, Question #2, Written Comments

Written Comments for question: "Based on your experience at your current workplace, does organizational influence have some effect on your practice (either positively or negatively)?"	
Comment Theme	**# of Comments**
Organizations have a positive influence (in my experience)	20
Organizations have no influence (in my experience)	8
Organizations can have a negative influence (in my experience)	4
N/A - Retired, sole practitioner, self-employed, etc.	33
N/A – unknown or no comment	8
Total Respondents	**73**

Question #3 - Alignment with Act, Code of Ethics and Bylaws

Question #3: *"To what extent do you agree that owners or senior managers of all (or a subset of) organizations practising engineering and geoscience should have responsibility for maintaining an organization where professional practice can be conducted in alignment with the requirements of the Engineers and Geoscientists Act, Code of Ethics and Bylaws?"*

Table 19: Fall 2016 Survey, Question #3, Quantitative Results

Choice		**Response Percent**	**Response Total**
1	Strongly agree	47%	611
2	Agree	37%	477
3	Undecided or neutral	7%	97
4	Disagree	5%	65
5	Strongly disagree	4%	52
Total Respondents			**1,302**
Total Skipped			5

Question #4 – Investigation

Question #4: *"To what extent do you agree that APEGBC should have the authority to investigate all (or a subset of) organizations practising engineering and geoscience in the event of a complaint or an incident?"*

Table 20: Fall 2016 Survey, Question #4, Quantitative Results

Choice		Response Percent	Response Total
1	Strongly agree	35%	453
2	Agree	36%	464
3	Undecided or neutral	11%	147
4	Disagree	11%	143
5	Strongly disagree	7%	94
Total Respondents			**1,301**
Total Skipped			6

Question #5 – Retention of Project Documentation

Question #5: *"To what extent do you agree that all (or a subset of) organizations practising engineering and geoscience should be required to retain project documentation and make this documentation available in the event of an investigation by APEGBC?"*

Table 21: Fall 2016 Survey, Question #5, Quantitative Results

Choice		Response Percent	Response Total
1	Strongly agree	42%	545
2	Agree	39%	511
3	Undecided or neutral	10%	131
4	Disagree	5%	67
5	Strongly disagree	4%	47
Total Respondents			**1,301**
Total Skipped			6

Question #6 – Check on Competency

Question #6: *"To what extent do you agree that APEGBC should have the authority to verify that all (or a subset of) organizations practising engineering and geoscience have at least one APEGBC professional engineer, geoscientist, or licensee on staff that has the appropriate qualifications for the organization's area of practice?"*

Table 22: Fall 2016 Survey, Question #6, Quantitative Results

Choice		Response Percent	Response Total
1	Strongly agree	55%	713
2	Agree	28%	369
3	Undecided or neutral	6%	84
4	Disagree	6%	73
5	Strongly disagree	5%	59
Total Respondents			**1,298**
Total Skipped			9

Question #7 – Quality Management Procedures

Question #7: *"To what extent do you agree that all (or a subset of) organizations practising engineering and geoscience in BC should be responsible for implementing and following organizational quality management procedures that facilitate and support individual compliance with APEGBC's Code of Ethics and Bylaws?"*

Table 23: Fall 2016 Survey, Question #7, Quantitative Results

Choice		Response Percent	Response Total
1	Strongly agree	32%	417
2	Agree	37%	485
3	Undecided or neutral	16%	204
4	Disagree	9%	119
5	Strongly disagree	6%	75
Total Respondents			**1,300**
Total Skipped			7

Question # 8 – Other Approaches

Question #8: *"Compared to implementation of corporate regulation on all (or a subset of) organizations practising engineering and geoscience, do you think that increasing the number of individual practice reviews could achieve similar benefits for public protection?"*

Table 24: Fall 2016 Survey, Question #8, Quantitative Results

Choice		Response Percent	Response Total
1	Yes – Increasing the number of individual practice reviews could achieve similar benefits for public protection compared to corporate regulation.	15%	189
2	No – The benefits for public protection from corporate regulation are distinctly different than the benefits from individual practice reviews.	59%	768
3	No – I do not see benefits to individual practice reviews or corporate regulation	17%	215
4	Don't Know or Undecided	10%	129
Total Respondents			**1,301**
Total Skipped			6

Question #9 – Consulting Firms

Question #9: *"If APEGBC decides to seek regulatory authority for corporate practice, do you think consulting firms providing engineering and geoscience services should be covered by corporate regulation?"*

Table 25: Fall 2016 Survey, Question #9, Quantitative Results

Choice		Response Percent	Response Total
1	Yes – Consulting firms should be covered by corporate regulation.	71%	920
2	No – Consulting firms should not be covered by corporate regulation.	20%	257
3	Don't Know or Undecided	9%	119
Total Respondents			**1,296**
Total Skipped			11

Question #10, #10.1, and #10.2 – Sole Practitioners

Question #10: *"If APEGBC decides to seek regulatory authority for corporate practice, do you think sole practitioners providing engineering and geoscience services should be covered by the corporate regulation?"*

Table 26: Fall 2016 Survey, Question #10, Quantitative Results

Choice		Response Percent	Response Total
1	Yes – Sole practitioners should be covered by corporate regulation.	25%	319
2	Yes – Sole practitioners should be covered, but only those that have been incorporated.	17%	224
3	No – Sole practitioners should be excluded from corporate regulation.	51%	659
4	Don't Know or Undecided	7%	95
Total Respondents			**1,297**
Total Skipped			10

Question #10.1: *"What is the main reason you think corporate regulation should apply to sole practitioners that practise engineering and geoscience?"*

Table 27: Fall 2016 Survey, Question #10.1, Quantitative Results

Choice		Response Percent	Response Total
1	Sole practitioners are the owners of a business organization and therefore should align the responsibilities of their business with their own responsibilities as a professional.	39%	207
2	Corporate regulation could address concerns that some sole practitioners do not have sufficient quality management practices.	21%	112
3	All professionals providing engineering and geoscience services should be treated equally regardless of the size of the firm.	37%	197
4	Other: Please specify	4%	19
Total Respondents			**535**
Total Skipped			8

Table 28: Fall 2016 Survey, Question #10.1, Written Comments

Written Comments for question: *"What is the main reason you think corporate regulation should apply to sole practitioners that practise engineering and geoscience?"*	
Comment Theme	**# of Comments**
Reason for covering: Need for accountability and independent review	8
Reason for covering: Sole-practitioners can hire sub-contractors.	4
Suggestion: Cover incorporated individuals acting as firms	5
Disagree with covering: sole practitioners already covered	2
Total Respondents	**19**

Question #10.2: *"What is the main reason you think corporate regulation should not apply to sole practitioners that practise engineering and geoscience?"*

Table 29: Fall 2016 Survey, Question #10.2, Quantitative Results

Choice		**Response Percent**	**Response Total**
1	Current regulatory system is sufficient for sole practitioners – with only one person involved in the organization, there would be no conflict between professional and corporate objectives.	80%	520
2	The cost and effort would be too burdensome for sole practitioners.	12%	75
3	Other: Please specify	9%	57
Total Respondents			**652**
Total Skipped			7

Table 30: Fall 2016 Survey, Question #10.2, Written Comments

Written Comments for question: *"What is the main reason you think corporate regulation should not apply to sole practitioners that practise engineering and geoscience?"*	
Comment Theme	**# of Comments**
Reason for not covering: Current system is sufficient & Cost concern	39
Reason for not covering: Sole practitioners already covered	8
Reason for not covering: APEGBC needs better enforcement of existing regulations first	7
Unique comments (cannot group into common theme)	3
Total Respondents	**57**

Question #11, #11.1, and #11.2 - Organizations that practise solely for internal consumption purposes

Question #11: *"If APEGBC decides to seek regulatory authority for corporate practice, do you think the corporate regulation should cover organizations that practise only for internal consumption purposes?"*

Table 31: Fall 2016 Survey, Question #11, Quantitative Results

Choice		Response Percent	Response Total
1	Yes – Corporate regulation should apply to ALL organizations that only practise engineering and geoscience for internal consumption purposes.	42%	550
2	Yes – Corporate regulation should apply to SOME of these organizations (such as organizations that provide custom design engineered products).	17%	221
3	No – Corporate regulation should not apply to organizations that only practise engineering and geoscience for internal consumption purposes.	29%	374
4	Don't Know or Undecided	12%	151
Total Respondents			**1,296**
Total Skipped			11

Question #11.1: *"What is the main reason you think corporate regulation should apply to organizations that only practise engineering and geoscience for internal consumption purposes?"*

Table 32: Fall 2016 Survey, Question #11.1, Quantitative Results

Choice		Response Percent	Response Total
1	All organizations that practise engineering and geoscience should be covered by corporate regulation.	16%	122
2	The practise of engineering and geoscience in these organizations has implications for public safety, human health and the environment.	60%	459
3	Corporate regulation would require these organizations to ensure the professionals employed by them can practise in line with APEGBC's Code of Ethics and Bylaws.	14%	104
4	Corporate regulation would provide a mechanism to hold these organizations to account in the event of an incident or complaint.	6%	49
5	Other: Please specify	4%	31
Total Respondents			**765**
Total Skipped			6

Table 33: Fall 2016 Survey, Question #11.1, Written Comments

Written Comments for question: *"What is the main reason you think corporate regulation should apply to organizations that only practise engineering and geoscience for internal consumption purposes?"*	
Comment Theme	**# of Comments**
All reasons (1-4); safety, accountability, ethics, standards	14
One or a combination of reasons; safety, accountability, maximum coverage	13
Equal coverage across organizations	2
N/A*	2
Total Respondents	**31**
*N/A is designated to comments that are not related to the topic of corporate practice or corporate regulation.	

Question #11.2: *"What is the main reason you think corporate regulation should not apply to organizations that only practise engineering and geoscience for internal consumption purposes?"*

Table 34: Fall 2016 Survey, Question #11.2 Quantitative Results

Choice		**Response Percent**	**Response Total**
1	The practice of engineering and geoscience in these organizations has minimal risks to public safety, health and the environment – added value of corporate regulation does not justify additional costs and effort.	29%	106
2	Regulating engineering services in product companies is redundant as the ultimate regulation for product quality and safety needs lies with the product itself and/or through processes (such as ISO 9000 certification) that are driven by upstream consumers.	60%	219
3	Other: Please specify	11%	40
Total Respondents			**365**
Total Skipped			9

Table 35: Fall 2016 Survey, Question #11.2, Written Comments

Written Comments for question: *"What is the main reason you think corporate regulation should not apply to organizations that only practise engineering and geoscience for internal consumption purposes?"*	
Comment Theme	**# of Comments**
Redundant or not required	18
Both reasons (1 and 2 from the question) - minimal risk to public, and redundant	10
Complexity of regulating these organizations	6
Unique Comments (cannot group into common theme)	3
N/A*	3
Total Respondents	**40**
*N/A is designated to comments that are not related to the topic of corporate practice or corporate regulation.	

Question #12, #12.1 and #12.2 – Public sector organizations

Question #12: *"If APEGBC decides to seek regulatory authority for corporate practice, do you think the corporate regulation should cover public sector organizations?"*

Table 36: Fall 2016 Survey, Question #12, Quantitative Results

Choice		**Response Percent**	**Response Total**
1	Yes – Corporate regulation should apply to all public sector organizations that practise engineering and geoscience.	59%	767
2	Yes – Corporate regulation should apply to some public sector organizations that practise engineering and geoscience.	16%	213
3	No – Corporate regulation should not apply to public sector organizations that practise engineering and geoscience.	18%	236
4	Don't Know or Undecided	6%	84
Total Respondents			**1,300**
Total Skipped			7

Question #12.1: *"What is the main reason you think corporate regulation should apply to public sector organizations that practise engineering and geoscience?"*

Table 37: Fall 2016 Survey, Question #12.1, Quantitative Results

Choice		Response Percent	Response Total
1	All organizations that practise engineering and geoscience should be covered by corporate regulation.	18%	179
2	The practice of engineering and geoscience in these organizations has implications for public safety, human health and the environment.	56%	544
3	Corporate regulation would require these organizations to ensure the professionals employed by them can practise in line with APEGBC's Code of Ethics and Bylaws.	13%	130
4	Corporate regulation would provide a mechanism for holding these organizations to account in the event of an incident or complaint that is specific to their practise of engineering and geoscience.	7%	72
5	Other: Please specify	5%	46
Total Respondents			**971**
Total Skipped			9

Table 38: Fall 2016 Survey, Question #12.1, Written Comments

Written Comments for question: *"What is the main reason you think corporate regulation should apply to public sector organizations that practise engineering and geoscience?"*	
Comment Theme	**# of Comments**
One or a combination of reasons; safety, accountability, maximum coverage	15
Issues of accountability and influence	13
Equal coverage of all organizations	12
Public safety implications	5
Unique Comments (cannot group into common theme)	1
Total Respondents	**46**

Question #12.2: *"What is the main reason you think corporate regulation should not apply to public sector organizations that practise engineering and geoscience?"*

Table 39: Fall 2016 Survey, Question #12.2, Quantitative Results

Choice		Response Percent	Response Total
1	Public sector organizations are sufficiently regulated.	45%	102
2	There's not enough value-added for regulating these organizations to justify the additional costs and bureaucracy.	45%	103
3	Other: Please specify	10%	22
Total Respondents			**227**
Total Skipped			9

Table 40: Fall 2016 Survey, Question #12.2, Written Comments

Written Comments for question: *"What is the main reason you think corporate regulation should not apply to public sector organizations that practise engineering and geoscience?"*	
Comment Theme	**# of Comments**
Redundant or not required	14
Both reasons (1 and 2 from the question) - no value added, redundant	4
Unenforceable / difficult to implement	3
Unique Comments (cannot group into common theme)	1
Total Respondents	**22**

Question #13 – Other Criteria to determine regulatory coverage

Question #13: *"Which of the items below do you think the Advisory Task Force should explore as ways to limit the types of organizations (if any) that should be subject to APEGBC regulatory oversight? (check all that apply)"*

Table 41: Fall 2016 Survey, Question #13, Quantitative Results

Choice		Response Percent	Response Total
1	Organizations whose practise of engineering and/or geoscience have significant public safety risks	67%	832
2	Organizations that practise engineering and/or geoscience and have owners or senior executives that are not professional engineers or professional	47%	587

Choice		Response Percent	Response Total
	geoscientists		
3	Any organization that provides internal or external services where the use of the seal is necessary	52%	645
4	Organizations that practise engineering and/or geoscience and are not already certified by APEGBC's voluntary Organizational Quality Management Program.	28%	352
5	Other: Please specify	9%	109
Total Respondents			**1,238**
Total Skipped			69

Table 42: Fall 2016 Survey, Question #13, Written Comments

Written Comments for question: *"Which of the items below do you think the Advisory Task Force should explore as ways to limit the types of organizations (if any) that should be subject to APEGBC regulatory oversight?"*	
Comment Theme	**# of Comments**
Opposed to corporate regulation or APEGBC	59
All organizations that practise should be covered	22
Input on regulatory coverage criteria	14
Unique Comments (cannot group into common theme)	14
Total Respondents	**109**

Question #14 – Fees

Question #14: *"Taking for example the average annual fee of $500 across existing corporate regulatory models for engineering and geoscience organizations in Canada, do you think a fee of this magnitude would be too costly for engineering and geoscience organizations?"*

Table 43: Fall 2016 Survey, Question #14, Quantitative Results

Choice		Response Percent	Response Total
1	No – This would be a reasonable fee, especially if a sliding scale was applied to give smaller organizations a break.	59%	767
2	Yes – This fee is too costly.	20%	263
3	Undecided or neutral	11%	144
4	Other: Please specify	9%	121

Total Respondents	**1,295**
Total Skipped	12

Table 44: Fall 2016 Survey, Question #14, Written Comments

Written Comments for question: *"Taking for example the average annual fee of $500 across existing corporate regulatory models for engineering and geoscience organizations in Canada, do you think a fee of this magnitude would be too costly for engineering and geoscience organizations?"*		
Category	**Comment Theme**	**# of Comments**
Comments on how fees should be determined and implemented	Fees should vary according to the size of organization (e.g. the # of professionals employed or the billings/revenue)	33
	Concerned with the cost burden of paying fees across multiple jurisdictions	3
	Fees should vary according to the amount of regulation that an organization requires	3
	Fees should be phased in	2
	Fees should be based on cost recovery model only	2
Comments on the fee amount	The corporate fee added to other fees would be too much for small companies and sole-practitioners	15
	I am more concerned about the cost of compliance	8
	An average fee of $500/year would be reasonable for most companies	6
	A fee of $500/year is too high	4
	An average annual fee of $500 is too low	4
Comments on corporate regulation and/or fees in general	Opposed to corporate regulation	28
	Opposed to additional fees	3
Other	Unique Comments (cannot be grouped)	10
	Need more information to provide feedback	4
Total Respondents		**125**

Question #15, #15.1, and #15.2 – Regulatory Models

Question #15: *"If APEGBC decides to seek regulatory authority for corporate practice, do you think a basic model for corporate regulation or a quality management focused model should be applied?"*

Table 45: Fall 2016 Survey, Question #15, Quantitative Results

Choice		Response Percent	Response Total
1	Basic Model	44%	563
2	Quality Management Focused Model	30%	385
3	Don't Know or Undecided	19%	251
4	Other: Please specify	7%	94
Total Respondents			**1,293**
Total Skipped			14

Table 46: Fall 2016 Survey, Question #15, Written Comments

Written Comments for question: *"If APEGBC decides to seek regulatory authority for corporate practice, do you think a basic model for corporate regulation or a quality management focused model should be applied?"*		
Category	**Comment Theme**	**# of Comments**
Recommendations for developing and/or implementing a corporate regulatory model	Apply a phased approach - start with basic then explore or implement a quality management focused model	8
	Explore hybrid models or other models (e.g., ISO 9000)	7
	Apply a basic model with the voluntary option for OQM and consider incentives to encourage OQM certification	6
	Other recommendations for regulatory model	4
	Support for quality management focused model, but with some qualifications	2
	Select whichever model has the least amount of associated fees and regulatory burden	2
Opposition to a specific model or corporate regulation in general	Opposition to corporate regulation	47
	Opposition to quality management-focused model and/or OQM	5
Other	Unique Comments (cannot group into common theme)	10
	No comment	3
Total Respondents		**94**

***Question #15.1**: "What is the main reason you support the basic model of corporate regulation?"*

Table 47: Fall 2016 Survey, Question #15.1, Quantitative Results

Choice		Response Percent	Response Total
1	Basic model addresses fundamental concerns with limited additional bureaucracy (e.g., aligning responsibilities of organizations and professions, providing a mechanism to hold organization to account in the event of an incident or complaint).	67%	376
2	Basic model will address the perceived regulatory gap between BC and other jurisdictions with limited additional bureaucracy.	14%	77
3	Basic model will be the least cost and will require the least amount of administrative effort on the part of organizations.	15%	86
4	Other: Please specify	4%	20
Total Respondents			**559**
Total Skipped			4

Table 48: Fall 2016 Survey, Question #15.1, Written Comments

Written Comments for question: *"What is the main reason you support the basic model of corporate regulation?"*	
Comment Theme	**# of Comments**
Keep quality management issues separate from APEGBC corporate regulatory model	7
Quality-management focused model is too prescriptive	3
All of the above	3
Unique Comments (cannot group into common theme)	4
N/A*	3
Total Respondents	**20**
*N/A is designated to comments that are not related to the topic of corporate practice or corporate regulation.	

***Question #15.2**: "What is the main reason you support a quality-management focused model?"*

Table 49: Fall 2016 Survey, Question #15.2, Quantitative Results

Choice		Response Percent	Response Total
1	A quality management focused model provides value-added for the public and the profession.	29%	108
2	A quality management focused model would demonstrate the profession is being proactive and would enhance the reputation of the profession – both of which contribute to the professions' objective of demonstrating that it can operate in a self-regulatory manner.	65%	245
3	Other: Please specify	6%	24
Total Respondents			**377**
Total Skipped			8

Table 50: Fall 2016 Survey, Question #15.2, Written Comments

Written Comments for question: "*What is the main reason you support a quality-management focused model?"*	
Comment Theme	**# of Comments**
Quality management focused model will improve professional practice	14
All of the above	4
Unique Comments (cannot group into common theme)	6
Total Respondents	**24**

Question #16 – Anything else?

***Question #16:** "Is there anything else that you would like to share about the Advisory Task Force's examination of corporate practice and regulatory models for corporate oversight?"*

Table 51: Fall 2016 Survey, Question #16, Written Comments

Written Comments for question: "*Is there anything else that you would like to share about the Advisory Task Force's examination of corporate practice and regulatory models for corporate oversight?"*		
Category	**Comment Theme**	**# of Comments**
Opposition to	Opposed to corporate regulation because the current system	50

Written Comments for question: "*Is there anything else that you would like to share about the Advisory Task Force's examination of corporate practice and regulatory models for corporate oversight?"*		
Category	**Comment Theme**	**# of Comments**
corporate regulation	is sufficient and/or it is redundant with the existing system of regulating individual professionals.	
	Opposed to corporate regulation because of the additional costs it will involve and/or the additional regulatory burden/bureaucracy.	32
	Opposed to corporate regulation because does not think it will be effective at enhancing public protection.	22
	Opposed to corporate regulation (no reason given).	10
	Opposed to corporate regulation because does not have confidence in APEGBC or thinks APEGBC should focus on improving implementation of current programs before developing new programs.	9
Support for corporate regulation	Support for corporate regulation to enhance public protection and/or the value of the professions.	19
	Support for corporate regulation due to concerns with the state of professional practice in BC.	15
	Support for corporate regulation (no reason given).	8
Concerns with corporate regulation	Concerned with the impact of corporate regulation on small companies and/or sole-practitioners	23
Input on corporate regulatory model/regulatory coverage	Input on corporate regulatory model (will be relevant and considered further if corporate regulation is pursued)	88
	Comments on what types of organizations should be covered by corporate regulation	52
	Need to consider the wide variety of engineering disciplines and ensure a corporate regulatory model makes sense for all (not just the 'mainstream' disciplines such as civil engineering)	7
Other	Unique comments (cannot group into common theme)	59
	No comment	51
	N/A*	3
Total Respondents**		**448**
*N/A is designated to comments that are not related to the topic of corporate practice or corporate regulation.		
**This total is higher than the total for written comments (441) because some written comments covered more than one theme.		

Questions #17 to #22 – Demographics

Question #17: *"Are you an APEGBC member?"*

Table 52: Fall 2016 Survey, Question #17

Choice		Response Percent	Response Total
1	Yes	99%	1291
2	No	1%	7
Total Respondents			**1,298**
Total Skipped			9

Question #18: *"What is your area of practice?"*

Table 53: Fall 2016 Survey, Question #18

Choice		Response Percent	Response Total
1	Engineering	90%	1157
2	Geoscience	10%	123
Total Respondents			**1,280**
Total Skipped			20

Question #19: *"Which of the following best describes what type of organization you work for?"*

Table 54: Fall 2016 Survey, Question #19

Choice		Response Percent	Response Total
1	Consulting firm - sole practitioner (1 APEGBC professional)	19%	238
2	Consulting firm - small size (2-5 APEGBC professionals)	11%	144
3	Consulting firm - medium size (6-20 APEGBC professionals)	8%	98
4	Consulting firm - large size (20+ APEGBC professionals)	21%	273
5	Private sector company carrying out professional engineering/geoscience for internal consumption purposes only (e.g., engineered product company, resource companies)	18%	229
6	Public sector - crown corporation, public utility, etc.	7%	85
7	Public sector - municipal	3%	43
8	Public sector - provincial	3%	39
9	Public sector - federal	1%	13
10	Non-profit sector	1%	11
11	Other: Please specify	9%	110

Choice	Response Percent	Response Total
Total Respondents		**1,283**
Total Skipped		17

Question #20: *"What sector do you work in? (check all that apply)"*

Table 55: Fall 2016 Survey, Question #20

Choice		Response Percent	Response Total
1	Aerospace	2%	31
2	Construction	20%	253
3	Consulting Firms	42%	535
4	Provincial government	5%	67
5	Municipal government	7%	90
6	Health care	2%	28
7	High technology	8%	104
8	Manufacturing	10%	131
9	Marine	4%	52
10	Natural resources	25%	317
11	Utilities	15%	193
12	Other: Please specify	11%	135
Total Respondents			**1,277**
Total Skipped			23

Question #21: *"Are you or your company a member of any of the following associations?"*

Table 56: Fall 2016 Survey, Question #21

Choice		Response Percent	Response Total
1	Association of Consulting Engineers of BC (ACEC-BC)	52%	204
2	Association of Mineral Exploration BC (AME BC)	20%	79
3	Structural Engineers Association of BC (SEABC)	21%	83
4	Other: Please specify	26%	102
Total Respondents			**389**
Total Skipped			911

Question #22: *"Are you registered in any other jurisdiction where corporate regulation is in force?"*

Table 57: Fall 2016 Survey, Question #22

Choice	Response Percent	Response Total

Choice		Response Percent	Response Total
1	Yes	31%	397
2	No	63%	814
3	Unsure	6%	76
Total Respondents			**1,287**
Total Skipped			13

APEGBC's Climate Change Related Initiatives

1. In addition to the development of mitigation-focused Professional Practice Guidelines - Whole Building Energy Modelling Services, the following guidelines are either under development or have been developed:
    a. The top-tier principles-type guidelines such as APEGBC Professional Practice Guidelines (under development) and Sustainability Guidelines include the consideration of climate change. The revised Sustainability Guidelines now include higher level guidance to members which states that knowledge of sustainable practices now include proactive management of issues such as adaptation to climate change, mitigation of greenhouse gas emissions, and energy/materials/waste minimization.
    b. The existing professional practice guidelines such as the Mechanical Engineering Services, Building Envelope Engineering Services, and the Electrical Engineering Services guidelines are slated to be revised such that members can offer products and services that are low-carbon and energy efficient in nature.
    c. Developing Climate Change-Resilient Designs in the Design of Highway Infrastructure in BC (currently undergoing legal review). Developed in response to BC Ministry of Transportation and Infrastructure's climate change technical circular, these guidelines establish the standard of care for professionals submitting designs to the ministry in considering climate change and extreme weather resiliency.
    d. Legislated Flood Hazard Assessments in a Changing Climate in BC, commissioned by the British Columbia Ministry of Forests, Lands and Natural Resource Operations (MFLNRO), have been written with the intent to guide professional practice for flood assessments, to identify the circumstances when risk assessments are appropriate and to emphasize the need to consider climate change and land use changes in such assessments.

2. CPD events offered or are being offered on climate change adaptation and mitigation (the events in the future have the dates mentioned):
    i. Solar Energy in BC
    ii. Geothermal Energy (Resource Technology, and Economy)
    iii. Design Flood Hydrology for BC Natural Resource Professionals - Implications for Design of Natural Resource Infrastructure in a Changing Climate
    iv. Technical Energy Modelling Guidelines and energy efficiency updates to the City of Vancouver's Building Bylaw (on May 24th)
    v. Value by Design - Integrating Value Engineering and Sustainability coming up in June in Vancouver.
    vi. Climate Law for Engineers (an Engineers Canada Event, on June 6-7)

3. Relevant APEGBC Annual conference presentations, many of which are presented by members of the CCAG, Sustainability Committee, the Division of Energy Efficiency and Renewable Energy and the Division of Environmental Professionals, slated for this year's conference include:
    i. The BC Oil and Gas Industry and Climate Change

ii. Climate Vulnerability Assessment of Nanaimo Regional General Hospital
iii. Climate Change Mitigation and Adaptation for a Sustainable Future
iv. District Energy Planning and Design
v. Professional Practice Guidelines for Flood Mapping in BC
vi. Adaptation Planning - Updates from City of Surrey and Metro Vancouver
vii. The BC Energy Step Code: What Engineers and Geoscientists Need to Know Today
viii. Energy Storage: New Paradigms for Electricity Delivery and Renewables Integration
ix. Beyond incremental energy and carbon goals: context based goal setting

4. Resources:
   a. Climate Change Information Portal: this resource has been developed to provide links to resources and tools that can support APEGBC professionals in adapting their practices to a changing climate. The Portal is intended to:
      1. Inform members how to conduct risk assessments to determine the climate resilience of public infrastructure (e.g., using the Engineers Canada's PIEVC protocol);
      2. Provide climate projections for a particular area (e.g., availability of precipitation, intensity-duration-frequency curves); and,
      3. Point to climate change related work being done elsewhere that could be of benefit.

   b. Supporting resources that enable APEGBC members in understanding climate change projections as expounded by the International Panel of Climate Change's 5th assessment report such as the *APEGBC Climate Change Primer* have been developed by the CCAG.

Member Request Form

Date of Request (dd/mm/yyyy)

Date of Council Meeting (dd/mm/yyyy)

First Name

Last Name

Designation

P.Eng.

Member ID

What is the topic that you would like to bring before Council?

Have you raised this item with the related Committee/Division/Branch?

Have you raised this item with the staff member responsible for this program area?

Short Description of Topic (max 500 characters)

Important Notice: Requests for Council audience are required to be completed and submitted to Sarah Wray, Executive Assistant to Council, via email at swray@apeg.bc.ca three week prior to the Council meeting date. Council meeting dates are listed on our website at www.apeg.bc.ca/About-Us/Our-Team/Council/Council-Schedule-and-Minutes. All requests will be reviewed by the current Executive Committee prior to going before Council and, if necessary, may be forwarded onto a respective Committee for further consideration. Once a request has been approved to go before Council and has been added to the final version of the Council agenda, the owner of the request will be contacted and advised of the time slot and duration of their agenda item (typically five minutes).

Policy – Guests Appearing Before Council

1. Guest presentations are encouraged. The President may allow all reasonable requests to address Council.

2. Particular preference should be given to those guests who have opinions on current issues before Council.

3. Guest presentations should generally be limited to 30 minutes unless there is convincing reason for more time to be allotted.

4. Requests to address Council on matters related to investigation and discipline matters should be denied in accordance with Council's policy on "Oversight of the Investigation and Discipline Committees."

5. The President may consider all requests which are relevant to the membership and the public and are within the APEGBC mandate.