

ANNUAL REPORT

2014

SOCIETY OF CONTAMINATED SITES
APPROVED PROFESSIONALS OF BC



CSAP

Society of Contaminated
Sites Approved Professionals
of British Columbia

OUR VISION

CSAP Society, a trusted resource for sound environmental stewardship.

MAJOR GOALS & OBJECTIVES

- Building Awareness
- Sustainability
- Building the Value of the Society
- Education / Outreach
- Proactive influence with Ministry of Environment

ABOUT US

The CSAP Society is an independent professional organization that is mandated by the Provincial Government, through the Ministry of Environment, to review environmental certification applications made under the Environmental Management Act and Contaminated Sites Regulation. The Society credentials its members and recommends their appointment to the Ministry of Environment Roster of Approved Professionals (APs).

In BC, the Ministry of Environment is responsible for regulations detailing safe and legal levels of soil and water contaminants.

Members of the CSAP Society are qualified to review all low to medium environmental certification applications to ensure these regulations are being met.

They perform an important role for the government and for landowners by addressing potential contamination issues in a timely manner which helps advance redevelopment projects. All low to medium risk sites seeking a ministry Certificate of Compliance must be reviewed by a Contaminated Site Approved Professional.



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MESSAGE FROM THE MINISTRY



The remediation of contaminated land and Brownfields in BC is integral to the service plan of the Ministry of Environment. In 2014 the Ministry issued 143 legal instruments based on the recommendations of members of the Contaminated Sites Approved Professional (CSAP) Society while a further 693 sites were identified as being cleaned up through independent remediation, largely under the oversight of CSAP members.

The investigation and remediation of contaminated sites and Brownfields across the province are central to reducing risks to the public and the environment from exposure to chemical substances. Such work is also instrumental in safely returning former commercial and industrial sites to productive use and community revitalization.

The Ministry is proud of the ability and confidence it can place on the work of the Contaminated Sites Approved Professional (CSAP) Society and its members. CSAP and its working groups continue to provide valuable contributions, insight and assistance to the Ministry on the development of key policy and guidance initiatives.

My thanks to Greg Sutherland, President; the CSAP Board of Directors; Catherine Schachtel, Executive Director and staff at the CSAP Society for their dedication and significant contributions; and to members of the CSAP Committees for their work and accomplishments in 2014.

Mike Macfarlane

Director, Land Remediation
Environmental Management Branch
B.C. Ministry of Environment

BOARD OF DIRECTORS

Gregory Sutherland, Ph.D., R.P.Bio.

President

Robin Jones, M.A.Sc., M.B.A., P.Eng.

Vice President, Chair Discipline Committee

Colin Dunwoody, P.Eng.

Secretary Treasurer

Jim Malick, Ph.D., R.P.Bio., P.Ag.,

Chair, Governance Committee

Ross Wilson, M.Sc., R.P.Bio., DABT

Chair, Membership Committee

Reidar Zapf-Gilje, Ph.D. P.Eng

Chair, Performance Assessment Committee

Michael Rankin, M.Sc., R.P. Bio.

Chair, Professional Development Committee

Guy Patrick, M.Sc., P.Eng.

Chair, Technical Review Committee

Carolyn Baron, P.Eng.

Local Government Representative

Paul Cassidy, J.D.

Environmental Representative

Kristi Thornhill, P.Eng.

Industry Representative

Vincent Hanemayer, P.Eng.

Ministry Representative



Back row (left to right): Jim Malick, Ross Wilson and Paul Cassidy

Middle row (left to right): Michael Rankin, Carolyn Bron, Kristi Thornhill, Guy Patrick, and Vincent Hanemayer

Front row (left to right): Colin Dunwoody and Greg Sutherland

Absent: Reidar Zapf Gilje and Robin Jones

MESSAGE FROM THE PRESIDENT

Greg Sutherland, Ph.D., R.P.Bio.



CSAP continues to successfully mature and improve as an organization and fulfill its mandate of serving its members, government, industry and the public. Entering its eighth year, CSAP is a well-respected organization that is recognized as a successful example for shifting government services to professional reliance from the private sector. CSAP's greatest attribute is its engaged members and their collective experiences that are sought by both industry and BCMOE.

In 2014, there were two additions to the CSAP Board of Directors: Jim Malick and Reidar Zapf-Gilje. CSAP has been fortunate to gain from the contributions of these two experienced members of CSAP. Jim Malick is a former CSAP President and Reidar Zapf-Gilje participated heavily in the initial formation of CSAP. We look forward to their ongoing involvement and participation on the Board.

CSAP strives to improve its processes and to look forward to understand and anticipate the upcoming changes and challenges facing CSAP and the contaminated sites industry. Based on our

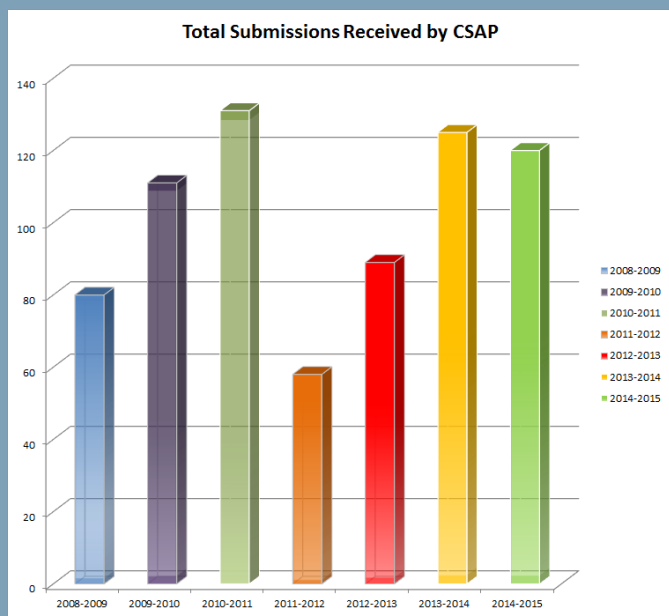
strategic planning, the following objectives were outlined (for 2015 and longer term):

- Improving the CSAP submission process, and specifically:
 - streamlining the submission process
 - improving the quality of submissions
 - effectively sharing lessons learned that are captured during submission screening and performance assessments
 - increasing the use of professional judgement
- Improving communication with APs, stakeholders and the public
- Managing the shift of responsibilities from BCMOE to CSAP
 - Our working relationship with BCMOE is vital to the success of CSAP and the ongoing evolution of CSAP as BCMOE shifts more responsibility to CSAP. CSAP serves as a valued resource for BCMOE as they evaluate potential regulatory changes. CSAP anticipates its involvement in the technical and administrative processes associated with the remediation of contaminated sites to continue to increase over time.

I am proud to have had the privilege to serve CSAP on the Board of Directors for the past four years and as President over the past year. As I reflect on this time, it is with great sincerity that I wish to thank those dedicated individuals that are instrumental to the success of CSAP. This includes the Board of Directors and volunteer APs who provide such valuable contributions through committee work and other volunteer efforts. It is my pleasure that I thank and acknowledge CSAP's Executive Director, Catherine Schachtel, who is the glue that holds CSAP together and continues to position CSAP for future success. I must also thank CSAP's staff who serve its members with such professionalism: Operations Coordinator, Nelly Pomareda, who keeps everything running smoothly; Anna Popova, who dutifully screens submissions to meet BCMOE's expectations; and Samantha Gordon, who continues to enhance CSAP's website and other communications. CSAP is in great hands with this group and will successfully steer CSAP as it manages the one constant in our industry – change.

A handwritten signature in black ink, appearing to read 'Greg Sutherland'.

Greg Sutherland, Ph.D., R.P.Bio.
President



MESSAGE FROM THE EXECUTIVE DIRECTOR

Catherine Schachtel, B.Ed.



Notable accomplishments

The Membership Committee was instrumental in developing an electronic resource library for CSAP examinations, first used by candidates during the November 2014 exams. The feedback from candidates was positive.

The Technical Review Committee undertook an ambitious number of projects this year. This included the “over summer” review of the 4 new Ministry documents and 8 revised documents. Additionally, the committee also approved 4 major special projects, which will be presented to the membership at the AGM.

The Performance Assessment Committee has enabled a new electronic process for submissions. The review copy of a randomly selected submission for a performance assessment may now be provided in electronic format. This new process speeds up the system and provides better access to information for the PA Delegated Member.

Further details regarding committee activities are provided in the committee reports section.

At the request of the Ministry, CSAP is chairing a Protocol 5 Working Group, including representatives from the Canadian Fuel Association, Urban Development Institute, and the BC Union of Municipalities to provide input to the Ministry on the draft protocol.

Looking forward

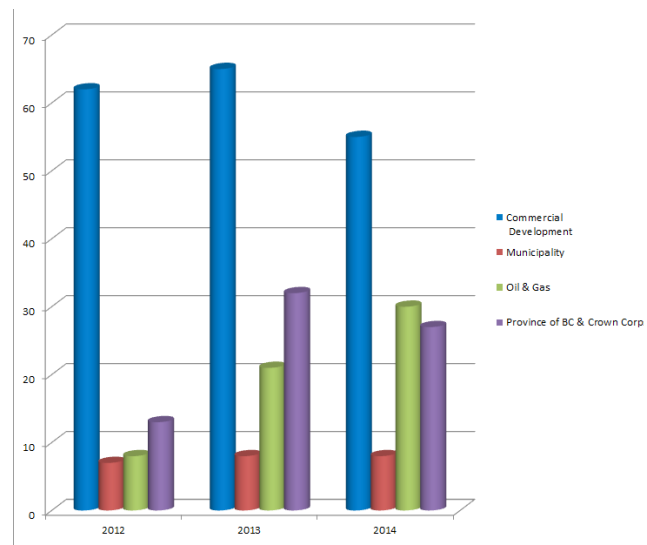
CSAP continues to be interested in expanding our relationship with stakeholders so that we better understand their issues; the submissions by sector graph is a good snapshot of who is using the Protocol 6 process. We intend to capitalize on our ability to be thought leaders and expertise by undertaking practical focused solution oriented special projects.

In order to better understand the landscape and where we fit in, we will be undertaking a review of jurisdictions outside of British Columbia. These jurisdictions use a system of licensed, certified or approved professionals to make recommendations or certifications to their respective regulatory agencies for the investigation and/or remediation of contaminated sites. The

review will include systems used currently in each province in Canada, as well as specific systems used in the USA (e.g., Massachusetts, Connecticut, and New Jersey) and Australia. The findings of the review will be presented at our Fall Professional Development Workshop on October 28th.

I would also like to thank our retiring directors, Greg Sutherland and Guy Patrick. As President, Greg always provided a considered perspective in challenging circumstances. As Chair of the Technical Review Committee, Guy and his fellow committee members completed an impressive number of initiatives over the last 2 years.

SUBMISSIONS BY SECTOR



Catherine Schachtel, B.Ed.
Executive Director

MEMBERSHIP

Chair: Ross Wilson, M. Sc., R.P Bio, DABT

Members: Vijay Kallur, M. Sc., P. Eng., FEC
Laura Koch, P.Ag. Jay Rao, P.Ag.
Sam Reimer, P.Ag.



COMMITTEE PURPOSE

The membership committee administers the membership application and examination process, evaluates applications and examination results, and makes recommendations to the CSAP Society board regarding new member appointments.

Our primary goals are to ensure that both existing members and new applicants meet and maintain the requirements for qualification or membership renewal and are treated fairly through the process.

In 2014/2015 a major accomplishment included providing an electronic reference library for CSAP examination candidates. Although we still regard the reference library as a "beta" site, candidates are responding positively to the reference library. I'm sure recent members will recall arriving to write the exams with a large box of difficult to transport reference materials. As part of the ongoing re-evaluation of our credentialing process, the exam question banks underwent a thorough review.

For members lacking a submission during their 3 year window to renew a membership, the membership committee considers that the regulator exam remains a reasonable option.

The committee has determined that cosigning a submission is allowed (i.e., up to 2 risk-based standards and 2 numerical standards APs may sign a submission); however, credit for the submission will only be awarded to 1 risk-based standards and 1 numerical standards AP per submission and will only be credited to an AP taking a substantive role in the submission (in cases where cosigning occurs, a letter is required from the submitting APs which identifies requesting credit for the submission and attests that the AP played a substantive role).

As of December 31, 2014, there were 104 APs (85 numerical standards APs; 15 risk-based standards APs; and 4 APs who were both numerical and risk-based standards specialists). There were 3 new members and 29 membership renewals as of December 31, 2014 and a valued member of the community Doug Whitaric retired.

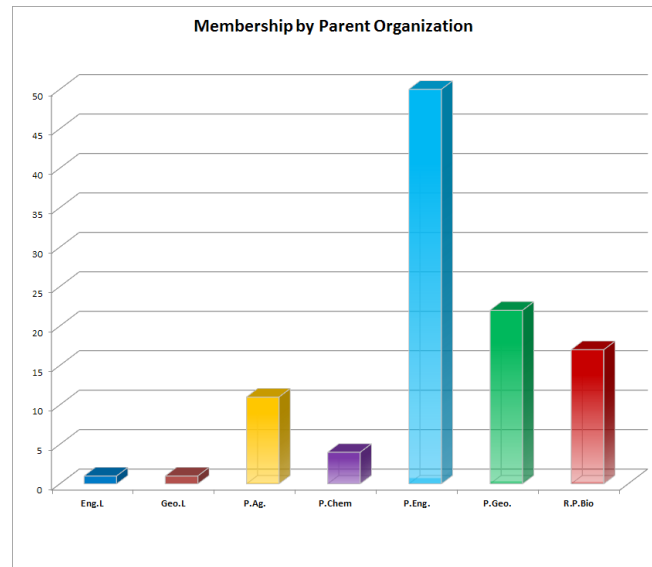
WELCOME TO NEW CSAP MEMBERS!

Michael Gill, P.Eng.,

Traci Magee, P.Eng.

Stefan Quaglia, EP, R.P.Bio., P.Biol.

Adrian Renneberg, M.Sc., P.Ag.



MEMBER PARTICIPANTS 2013 / 2014

Robert Beck	Art Hildebrand	Michael McLeay	Sam Reimer	Alan Walker
Tadd Berger	Chuck Jochems	Trish Miller	Tara Siemens Kennedy	Paul Webb
Patty Carmichael	Robin Jones	David Mitchell	Michael Sloan	Richard Wells
Brant Dorman	Vijay Kallur	Ian Mitchell	Jackie Smith	Jim West
Colin Dunwoody	Laura Koch	Jerry Naus	James Smith	John Wiens
Ken Evans	Jim Laidlaw	Reg North	Andrew Sorensen	Jason Wilkins
Dawn Flotten	Lori Larsen	Cindy Ott	Scott Steer	Dave Williams
Michael Geraghty	Gary Lin	Guy Patrick	Greg Sutherland	Ross Wilson
Eva Gerencher	Duncan Macdonald	Beth Power	Bob Symington	Reidar Zapf-Gilje
Tony Gillete	Jim Malick	Michael Rankin	John Taylor	
Gary Hamilton	Ian Marsh	Jay Rao	Christine Thomas	
Craig Harris	Blair McDonald	Peter Reid	Michelle Uyeda	

MEMBER PARTICIPANTS 2013 / 2014

Number of AP's who volunteered	57
Average number of hours volunteered	35
Highest number of hours	149
Total number of hours volunteered	1723

MEMBERSHIP GUIDELINES

<http://csapsociety.bc.ca/join/guidelines/>



PROFESSIONAL DEVELOPMENT

Chair: Mike Rankin, M.Sc., R.P. Bio

Members: Laura Koch, P.Ag. Bob Symington, P.Geo.
Andrew Sorensen, P.Eng. Jason Wilkins, P. Ag



COMMITTEE PURPOSE

Maintaining high professional standards in a fast moving field requires a commitment to continuous improvement to ensure Approved Professionals remain at the leading edge of their professions. CSAP workshops actively promote continuous learning and help bring together members and the committee together to discuss potential future topics for educational programming.

In 2014/15 our Fall PD Workshop was held in Vancouver on October 23, 2014. Local APs presented (i) Soil Vapour Mitigation is now the Critical Path Item to Achieve a CoC (Keith Gagne P.Eng.) and (ii) Vapour Intrusion in High Density Development (Mark Adamson P.Eng).

Invited presentations targeted the theme of Innovative Solutions and included:

- Definitive Vapor Intrusion Investigations Using On-site GC/MS Analysis and Building Pressure Control (Thomas McHugh, PhD., DABT, GSI Environmental)
- Update on Silica Gel Columns to Separate Polar Compounds - Nature and Toxicity of Polar Metabolites in Water Samples (Dawn Zemo, P.G., C.E.G., Zemo & Associates)
- CO2 Flux Measurements to Estimate Source Zone Natural Attenuation (Marl Lyverse, Sr. Hydrogeologist, Chevron ETC)

CSR Regulatory updates were provided by BC MOE staff. The closing Panel Discussion addressed: MOE CSR Vision: To Transfer More CSR Tasks to CSAP Why? How? Implications?

In the coming year PD committee will:

- complete additional webinars which will be posted on the CSAP website (approximately bimonthly except for the summer)
- develop the technical program for the Fall PD Workshop (Vancouver, October 28, 2015)
- coordinate evaluation and upgrading of CSAP Submission Manager software

PD WEBINARS

2014-15 PD WEBINARS

- The Site Profiles System June 2014, (78 computers attended)
- Preparing a CSAP Submission Nov 2014, (54 computers attended)

Note: CSAP PD Webinars are posted to the CSAP website

AGM JUNE 2014		
Attendees	Number	Percentage over total members
Members	74	73%
FALL PD WORKSHOP 2014		
Attendees	Number	Percentage over total members
Members	75	50%
Non members	76	50%
Total	151	100%

TECHNICAL REVIEW

Chair: Guy Patrick, P.Eng., M.Sc.

Members: Jerry Naus, P.Eng. John Taylor, P.Eng.
Peter Reid, M.B.A., M.Eng., P.Eng. Dave Williams, P.Eng, Ph.D.



COMMITTEE PURPOSE

The Technical Review Sub Committee manages the Technical Review Process, the CSAP Scholarship Program, the CSAP Small Special Project Funding program and other technical issues on behalf of CSAP.

The Technical Review process accepts requests for technical reviews from internal (e.g. CSAP Board of Directors, CSAP Committees) or external sources (e.g. BCMOE). In 2014/2015, the following external technical reviews were completed:

- Revisions to Administrative Guidances 6 and 14; Procedures 8 and 9; Protocols 5 and 6; Technical Guidances 6, 7, and 22
- Administrative Guidance 15: Approval Not to Delineate or Remediate the Entire Area of Contamination at a Site Listing of investigated substances on legal instruments
- Administrative Guidance 16: Approved Professionals Role in the Administration of Site Profile Releases
- Protocol 5: Groundwater Remediation requirements for Protecting Drinking, Irrigation and Livestock Water Uses
- Protocol 21: Water Use Determination

In 2014, three scholarships were awarded to graduate students whose research is related to contaminated sites;

Jarod Devries – UBC, Contaminant Hydrogeology

Jayda Guy – SFU, Environmental Toxicology

Mohsen Saeedi – UBC, Geoenvironmental Engineering

In 2014 CSAP approved the following special projects:

- Risk Management Decision Framework, Azimuth Consulting
- Food Chain Modeling, SLR Consulting
- Toolkit for Risk Management. Golder Associates
- Geo Information System, further improvements, Hemmera
- We would like to thank the proponents for their work in providing useful tools to the membership

As part of our on-going work, we are identifying specific technical topics facing CSAP practitioners that may be worth moving forward with a modest amount of funding.

The Technical Review Sub Committee continued to review and update the CSAP Practice Guidelines, and the results of these efforts are anticipated in 2015.



PERFORMANCE ASSESSMENT

Chair: Reidar Zapf-Gilje, Ph.D. P.Eng

Members: Colin Dunwoody, P.Eng. Eva Gerencher, M.Sc., P.Ag.
Michael Geraghty, M.Sc. Duncan MacDonald, B.Sc., P.Eng.
P.Geo. past Chair Tara Siemens-Kennedy, P.Chem, P.Ag.



COMMITTEE PURPOSE

The Performance Assessment Committee (PAC) is responsible for conducting Performance Assessment of submissions made to CSAP for Contaminated Site Regulation (CSR) instruments. New this year, is conducting a detailed screening of every CSAP submissions. This was previously done by the Ministry of Environment (MOE) staff. A summary of the Performance Assessment timelines and outcomes are provided below. PAC achievements over the past year includes:

- Providing the option for APs to provide an electronic version of a submission undergoing a Performance Assessment, to improve the efficiency of distributing copies of the submission to the Performance Assessment team
- Revising the Performance Assessment Guidelines to reflect improvements made to the process and to provide better clarity

- Updating of the submission transmittal letter to reflect the Ministry and CSAP's move toward processing electronic documents
- Assisting in the development of the new CSAP's annotated Summary of Site Conditions (SoSC) which provides guidance on what should be included in the SoSC
- Developing and implementing the new Detailed Screening process for all CSAP submission
- Providing training Webinar for Performance Assessment panel members and updating the "Lessons Learned" database

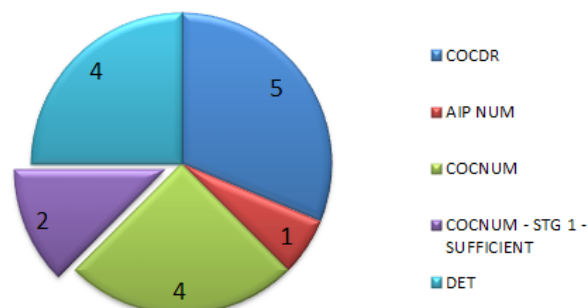
We would like to remind members that the annotated Summary of Site Conditions, if used, will ensure that the required information is included in the submission and will cut down on the time spent on administrative and detailed screening and aid the PA process as well.

PERFORMANCE ASSESSMENT TIMELINE

Selected for PA	Completed < 1 month	Completed 1-2 months	Completed > 2 months	In Progress
16	25%	19%	44%	12%

Note: Approved Professional Response time and Ministry of Environment time to release instruments not included

Performance Assessments 2014-15



PERFORMANCE ASSESSMENTS CONDUCTED	16
SUFFICIENT WITH CLARIFICATION	14
SUFFICIENT	2

GOVERNANCE

Chair: Jim Malick, Ph.D., R.P.Bio., P.Ag.

Members: Paul Cassidy J.D., Director
Cindy Ott, M.Sc., P.Ag., GeoL., P.Chem, Past President



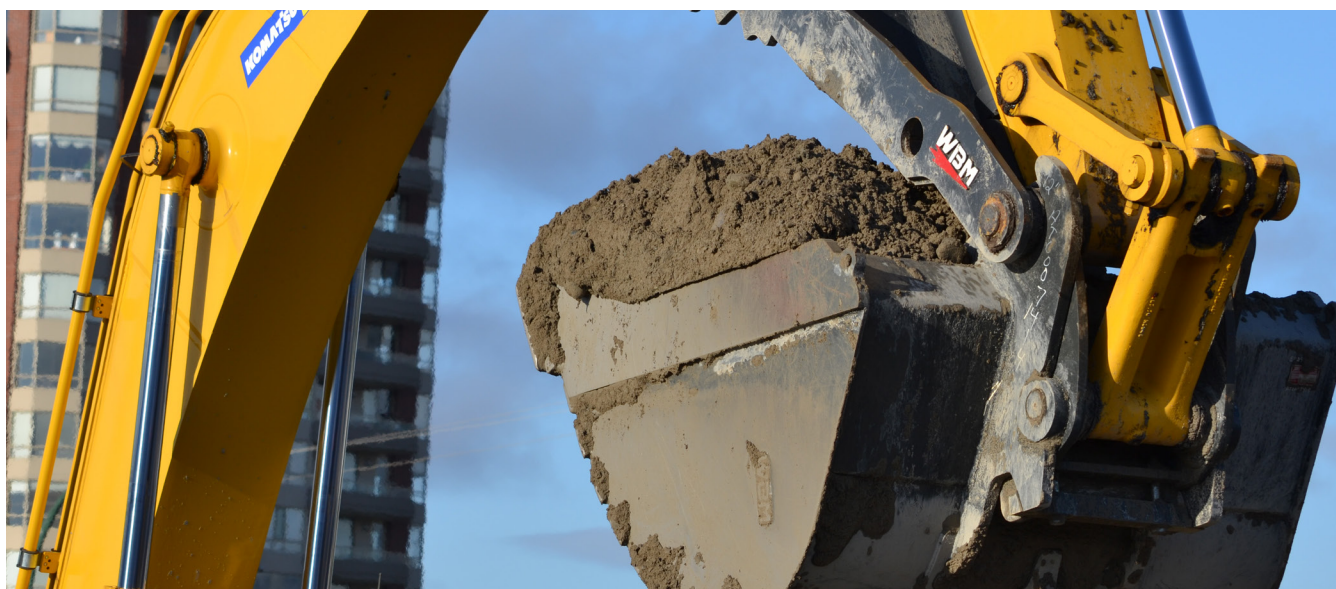
COMMITTEE PURPOSE

The purpose of the Committee is to recommend processes for the effective functioning of the Board of Directors and the committees, task forces, and any other work undertaken by the Board. The Committee is responsible for the development, recommendation to the Board and assessment of governance principles and policies approved by the Board.

In keeping with our purpose this year the committee conducted several discussions with the Ministry of Environment regarding the future of the Contaminated Sites Sector and how the Ministry and CSAP might work together to streamline the system of applications

and approval of instruments. One of the items that emerged from CSAP's January Strategic Planning Session was the need for an Advisory Council to provide early stage advice to Approved Professionals regarding investigation and remediation strategies. Draft Terms of Reference for an Advisory Council are under development. The membership will be invited to comment on the viability of the project through the Members AGM Survey

A special resolution concerning advance voting for the election of Directors was developed and will be considered by the membership at the 2015 AGM.



DISCIPLINE

Chair: Robin Jones, M.A.Sc., M.B.A., P.Eng.

Members: Ken Evans, P.Eng. Reg North, P.Eng., P.Geo.
Dave Mitchell, P. Eng.



COMMITTEE PURPOSE

In 2014/2015 the Committee crafted wording to clarify the Discipline Guidelines document. The changes were made so that more transparency regarding the Discipline process could be provided. The changes are currently being considered by the CSAP Board to provide. An updated list of potential Measures that may be considered in the event of future Deficient Final Findings from Performance Assessments was approved by the Board in December 2014 and included in the

Rules. During this year there were no Deficient Final Findings from Performance Assessments. To date, CSAP has not received any written complaints requiring disciplinary action.

MEMBERSHIP GUIDELINES

<http://csapsociety.bc.ca/public/complaints-discipline>



SPECIAL THANKS TO OUR STAFF



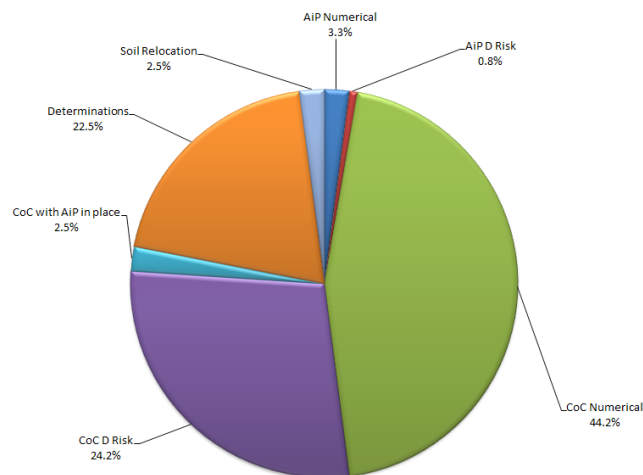
Nelly Pomareda

Operations Coordinator

Anna Popova

Administrative Assistant

INSTRUMENT OVERVIEW 2013-2014



SUBMISSION SCREENING TIME

Screened	<5 Days	5-10 Days	>10 days
120	80%	14%	6%
Note: Approved Professional Response time and Ministry of Environment time to release instruments not included			



CSAP Strategic Planning

Session - January 2015 (right to left): Greg Sutherland, Mike MacFarlane, Catherine Schachtel, Vince Hanemayer, Peggy Evans, Peter Kickham, Carolyn Baron, Mike Rankin, Alan McCammon, Reidar Zapf-Gilje, Jim Malick, Colin Dunwoody, Guy Patrick, Glyn Fox and Kristi Thornhill.



CSAP
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