

SOCIETY OF CONTAMINATED SITES APPROVED PROFESSIONALS OF BC

ANNUAL REPORT 2016

OUR VISION

CSAP Society, a trusted resource for sound environmental stewardship.

OUR GOAL

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

ABOUT US

The Contaminated Sites Approved Professionals Society (CSAP Society) is an independent organization that is mandated by the Provincial Government, through the Ministry of Environment, to review environmental certification applications (submission) made under the Environmental Management Act and Contaminated Sites Regulation and more specifically, Protocol 6.

The purpose of the society beyond the review of submissions includes cooperating and consulting with other professional and scientific bodies, stakeholders, local and provincial governments. Upholding and protecting the public's interest by ensuring the integrity, objectivity and expertise of members is important to the society.

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.

CSAP AT A GLANCE

MEMBERSHIP

BY SPECIALITY

90

Numerical Standards Specialists

4

Numerical Standards / Risk-based Standards Specialists

16

Risk-based Standards Specialists

110

TOTAL MEMBERS

BY PROFESSIONAL ORGANIZATION AFFILIATION

80 Association of Professional Engineers and Geoscientists of BC

18 College of Applied Biology

13 BC Institute of Agrology

5 Association of the Chemical Profession of BC

BETTERING THE INDUSTRY

As part of the Society's commitment to bettering the industry, reviews of technical documents are undertaken at the request of the Ministry, Stakeholders as well as internally generated. White Papers and other projects designed to enhance our members' knowledge are conducted annually, the results of which are posted to the CSAP website.

Technical reviews completed: 57 (at the request of: MoE 37, SAB 1, CSAP 16)

Special projects completed: 22

RECENT EVALUATION

The Society received a positive review by the Environmental Law Centre, University of Victoria study (February 2015): Professional Reliance and Environmental Regulation in British Columbia.

QUALITY ASSURANCE

To achieve consistently high standards among Approved Professionals, each submission receives a detailed administrative peer screening. Random audits are conducted on 1 in 8 submissions. These audits, or performance assessments, provide valuable feedback to the Approved Professional, serve as a check on the submissions process, and form the basis for continuous improvement.

FUTURE ENDEAVOURS

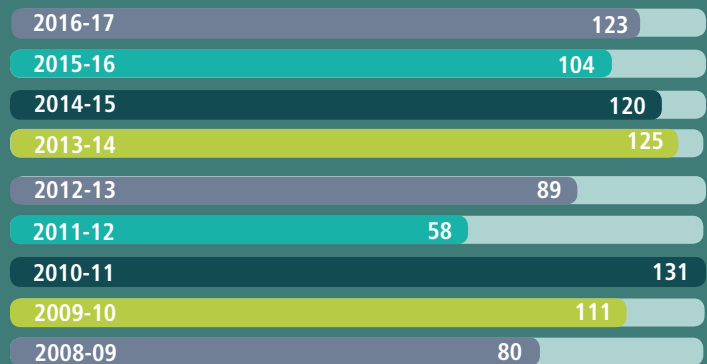
During 2017, the Society will be focused on improving communications with members, stakeholders, the Ministry of Environment and the public.

SUBMISSIONS PROCESSED UNDER PROTOCOL 6

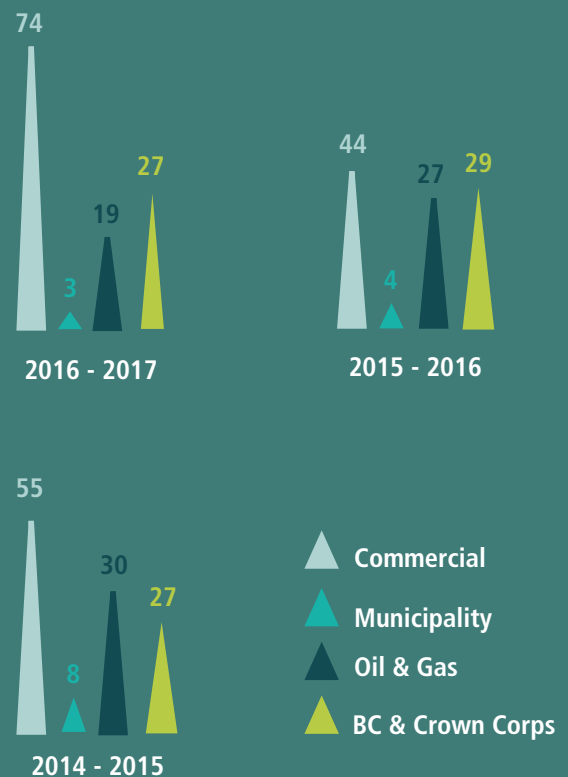
Protocol 6: Eligibility of Applications for Review by Approved Professionals (APs), sets out the activities and recommendations that are required when making a submission on a low to medium risk site. The site risk classification is determined by completing a Site Risk Classification form.

Starting July 1, 2008, the Society began processing submissions under MoE Protocol 6.

SUBMISSIONS PROCESSED ANNUALLY



SUBMISSIONS RECEIVED BY SECTOR





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MESSAGE FROM THE MINISTRY



In July 2017 the Contaminated Sites Approved Professional (CSAP) Society will enter its 10th year of operation. It gives me great pleasure to recognize the significant achievement of the Society and its members in overseeing the successful remediation of over 1100 contaminated sites under the Approved Professional review process and hundreds more under the Independent Remediation process in the past 9 years. In 2016, a total of 225 contaminated sites legal instruments were issued by the ministry based on recommendations of Approved Professionals, accounting for 99% of the instruments issued. As a result of this impressive work effort, risks to human health and the environment from historical contamination have been reduced across the province, liabilities to owners of former industrial/commercial lands have been managed or eliminated and under-utilized and sometimes derelict lands have been brought back into productive use, oftentimes serving as cornerstones of community revitalization efforts.

The success of the CSAP Society has led to its reputation in BC and across the country as a leading Qualified Professional reliance model and enabled the ministry to continually expand the scope of regulatory reviews conducted under the Society's umbrella. In addition to its important regulatory review function, CSAP continues to be a strong partner in the ministry's delivery of the contaminated sites regime. In 2016, the Society undertook a number of special projects aimed at developing tools and procedures for improving site investigation and remediation practices in BC and to support the ministry's development of key protocols and guidance required for implementing the Stage 10 Contaminated Sites Regulation amendment that comes into effect November 1, 2017.

The ministry greatly values its longstanding working relationship with CSAP and the Society's many contributions to the ministry's work and mandate and to the efforts of our stakeholder community who are undertaking remediation projects large and small.

Many thanks to Robin Jones, President; the CSAP Board of Directors; Catherine Schachtel, Executive Director; the CSAP staff; and the members of the CSAP Committees and Working Groups for your dedication and work over the year and congratulations on your accomplishments in 2016.

A handwritten signature in black ink, appearing to read 'Peggy Evans'.

Peggy Evans

Manager, Risk Assessment & Remediation
Environment Management Branch
B.C. Ministry of Environment

BOARD OF DIRECTORS



Back row (left to right): Scott Steer, Andrea Akelaitis, Robin Jones, Andrew Sorensen, Tony Gillett, Vince Hanemayer, Paul Gordon
Front row (left to right): Patrick Johnstone, Beth Power, Colin Dunwoody, Eva Gerencher, Peter Reid

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

Peter Reid, M.Eng., M.B.A., P.Eng.
Vice-President

Colin Dunwoody, P.Eng.
Secretary & Treasurer,
Performance Assessment Committee, Chair

Andrea Akelaitis, LLB
Environmental Representative

Vincent Hanemayer, P.Eng.
Ministry Representative

Patrick Johnstone, P.Geo.
Local Government Representative

Tony Gillett, P.Eng.
Chair, Governance Committee

Beth Power, M.Sc., R.P.Bio.
Chair, Technical Review Committee

Andrew Sorensen, P.Eng.
Chair, Professional Development
Sub-Committee

Scott Steer, MET, R.P.Bio.
Chair, Membership Committee

Paul Gordon, M.B.A.
Industry Representative

Eva Gerencher, M.Sc., P.Ag.
Chair, Discipline Committee

MESSAGE FROM THE PRESIDENT

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



The past year at CSAP was dominated by one particular topic. Omnibus. The issues that kept us hopping were not in the development of the standards themselves as that was the purview of the Ministry, but more trying to determine at a 10,000 foot (3,048 m) level how the implementation of the new standards and the associated protocols and policies would affect our day to day projects. These included large complex projects that required the technical assistance of multiple members and simpler projects turned over in a short number of weeks. Some projects that were completed or are currently underway include:

- Review of the protocols and the toxicity values used to develop the standards
- Once released CSAP comparison of the new standards against previously collected data to determine what the effects of the new standards may be once implemented
- Development of a PCOC list including the newly regulated substances
- Working with the ministry to determine how to best handle new standards that are either less than the regional background values or historical detection limits
- The review of all newly altered guidance and protocols

Incidentally, my personal pet project to determine if Omnibus was pronounced "Om-knee-bus" or "Om-ne-bus" was

rejected unanimously as being of little value.

This year also marked a year where I believe the CSAP made great strides in enhancing our outreach to our many stakeholders. We have been hosting face to face meetings with some of our stakeholders (Canada Fuels, BCBC, UDI and UBCM) where we have been able to gain and understanding as to where there biggest concerns lie and in turn we are able to discuss our concerns with these same stakeholders.

Finally, I believe it was also a year where we were able to continue the development of our relationship with the Ministry. The more faith the Ministry has in the CSAP process and its ability to ensure that only quality submissions are processed the more streamlined things can become in the future. This has been achieved through initiatives such as the detailed screening process.

I would like to thank CSAP's Executive Director, Catherine Schachtel, who is the glue that holds CSAP together and continues to position CSAP for future success.

I wish all of you a great summer. Make sure that you take time to plan some time to spend with your friends and family, you can always make more money, you can't buy more time.

Robin Jones, President

MESSAGE FROM EXECUTIVE DIRECTOR

Catherine Schachtel, B.Ed.



The Omnibus changes certainly did dominate the 2016-17 landscape however several noteworthy milestones were achieved. CSAP developed proprietary exam software in conjunction with our local testing lab and we were able to engage a local Psychometric Expert to oversee the exam development process in keeping with the Angoff method, which is considered to be legally defensible. The first trial of the new system, November 2016 exams, went off glitch free with the made in BC stamp. The first new members orientation was held; objective to explain the submission administrative and detailed screening

process along with the demystifications of the PA process. I've made a commitment to touch base with members experiencing their first Performance Assessment to ensure the process is clear.

I would like thank the Directors who are stepping down this year; Robin Jones has been an enthusiastic, thoughtful President, Colin Dunwoody our Secretary/Treasurer always willing to take on an additional committee chair positions and finally Scott Steer who provide great stewardship for the Membership Committee. They will be missed.

Catherine Schachtel, B.Ed.

MEMBERSHIP

Chair: Scott Steer, MET, R.P.Bio., Director

Members: Brant Dorman, P.Eng.
Vijay Kallur, M.Sc., P.Eng., FEC
Simone Mol, Ph.D., P.Chem.

Sam Reimer, P.Ag., Vice Chair
Paul Webb, P.Geo.



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.

ACCOMPLISHMENTS

In 2016/2017, major accomplishment included a thorough review/edit of the membership guidelines to ensure requirements for applicants and existing members are as clear as possible; review/edit of the experience forms and experience review guidelines to clarify requirements for applicants and experience reviewers; review of current submission requirements and communication with the MoE about additional tasks that could satisfy submission requirements; and development of a new online discussion forum to facilitate communications between APs (for consideration by members).

CSAP recently approached developers to create an exclusive software program fully customized for our needs. This proprietary exam software was successfully used for the first time during the November 2016 exams.

The regulatory and technical exam banks are under review to identify and resolve items affected by the Stage 10 Amendments to the CSR that are to take effect in November 2017.

MEMBERSHIP STATISTICS

As of December 31, 2016, there were 110 APs (90 numerical standards APs; 16 risk-based standards APs; and 4 APs who were both numerical and risk-based standards specialists).

There were 7 new members, 28 membership renewals. Three APs became associate members, and one member resigned in 2016.

WELCOME TO NEW CSAP MEMBERS!

Travis Wayne Deeter, EP, P.Ag.

Paul Stuart Embregts, P.Eng.

Yu-Min Lin, P.Eng.

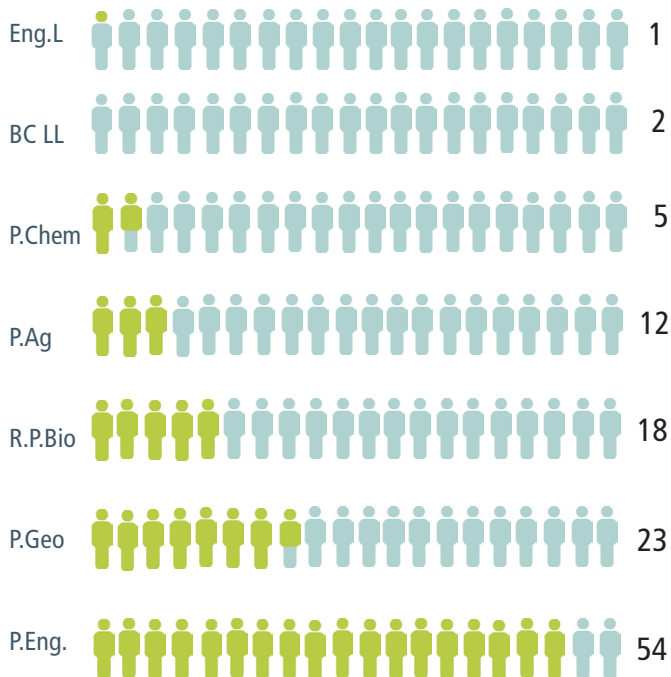
Bonnie Jean Marks, M.A.Sc., P.Eng., PMP

Michael Edmund Muttersbach, P.Geo

Lora Jane Paul, PGY, P.Eng.

Mandeep Purewal, MET, P. Ag., R.P.Bio.

MEMBERS BY PARENT ORGANIZATION



MEMBER PARTICIPANTS 2016 / 2017

Mark Adamson	Tony Gillett	Jim Malick	Reg North	James Smith	Paul Webb
Bob Beck	Gary Hamilton	Ian Marsh	Cindy Ott	Andrew Sorensen	Jim West
Patty Carmichael	Craig Harris	Blair McDonald	Guy Patrick	Scott Steer	Jason Wilkins
John DeCesare	Ian Hers	Robert McLenehan	Beth Power	Greg Sutherland	Dave Williams
Brant Dorman	Raminder Grewal	Trish Miller	Michael Rankin	Bob Symington	Ross Wilson
Colin Dunwoody	Art Hildebrand	David Mitchell	Jay Rao	John Taylor	Reidar Zapf-Gilje
Ken Evans	Robin Jones	Ian Mitchell	Peter Reid	Christine Thomas	Diane Zorn
Dawn Flotten	Laura Koch	Simone Mol	Sam Reimer	Ajay Tumber	
Michael Geraghty	Ingo Lambrecht	Jerry Naus	Tara Siemens-Kennedy	Michelle Uyeda	
Eva Gerencher	Duncan Macdonald	Dave Newton	Michael Sloan	Audrey Wagenaar	

MEMBERSHIP GUIDELINES

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

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

<http://csapsociety.bc.ca/join/experience-review/>



MEMBER PARTICIPANTS 2016 / 2017

57

Number of AP's
who volunteered

39

Avg. number of hours
volunteered

167

Highest number
of hours

2216

Total number of
hours volunteered



PROFESSIONAL DEVELOPMENT

Chair: Andrew Sorensen, P. Eng., Director



Members: Mark Adamson, P. Geo.

Mike Rankin, M.Sc., R.P.Bio. (Past Chair)

James Smith, R.P. Bio

Bob Symington, P. Geo.

Paul Webb, P. Geo. (Past Chair)

Jason Wilkins, P.Ag.

COMMITTEE PURPOSE

The PD Sub-Committee strives to ensure our members maintain high professional standards in this always evolving industry. This has never been more important than during this current period leading up the Omnibus changes to the CSR.

This past year, we worked closely with the Ministry in planning and coordinating the technical stream of their Land Remediation Conference. This stream focused on four categories: Innovative Remedial Technologies, Emerging Contaminants, Sustainable Remediation and Risk Assessment.

CSAP's annual Fall PD Workshop was held this past November at the Vancouver Convention Centre. Presenters included several APs, practitioners, and industry representatives, as well as Ministry of Environment staff. Invited presentations included:

- California Low-Threat Closure Policy (Catalina Espino Devine, Chevron)
- Regional Background Selenium in Groundwater in Kamloops (Kelly Carswell, Hemmera)
- Investigations in Bedrock Settings (Stephen Munzar, Core6 and Annette Mortensen, MoE)
- Professional Judgement (Robin Jones, SLR and Mike McFarlane, MoE)
- False Positives (Peter Reid, Hemmera)
- Ministry updates regarding the Hazardous Waste Regulation Amendments, Pre-Approvals and Revisions to Soil Vapour Technical Guidance

During the past year, PD Webinars were held on the following topics:

- Preparing a CSAP Submission – October 6, 2016 (APs Duncan Macdonald, Paul Webb & Tara Kennedy and Amy Sloma & Annette Mortensen of from the MoE; 68 computers attended)
- SLRA and Groundwater Models – November 10, 2016 (APs Mark Adamson, Christine Thomas & Stephen Munzar and George Szefer & Remi Odense from the MoE; 67 computers attended)
- Omnibus Standards Review – March 16, 2017 (APs Michael Sloan, Colin Dunwoody, Peter Reid, Chuck Jochems, & Dan Walker and Dr. Glyn Fox from the MoE; 76 computers attended)

The committee expresses its ongoing gratitude to Bob Symington for planning, coordinating and moderating the PD Webinars.

Presentations from the Fall Workshop as well as PD Webinars are posted on the CSAP Website. As always, the Committee welcomes new ideas from our members for workshop or webinar topics.

In the coming year, the PD Committee is tasked with the following:

- Plan the annual CSAP Fall PD Workshop on October 26, 2017
- Additional PD Webinars throughout the year
- Continue to support upgrades to the CSAP Submission Manager

PD WEBINARS

<https://csapsociety.bc.ca/members/pd-webinars/>

AGM 2016

ATTENDEES	NUMBER	% OVER TOTAL MEMBERS
MEMBERS	77	74%

FALL PD WORKSHOP 2016

ATTENDEES	NUMBER	% OVER TOTAL ATTENDEES
MEMBERS	63	66%
NON-MEMBERS	32	34%
TOTAL	95	100%

TECHNICAL REVIEW



Chair: Beth Power, M.Sc., R.P.Bio., Director

Members: Guy Patrick, M.Sc., P.Eng.
Michael Sloan, P.Eng.

Ajay Tumber, P. Eng.
Dave Williams, Ph.D., P.Eng.

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 2016/2017, the technical review committee following external technical reviews completed (requested by BCMOE):

- Leachate Test Protocol Development
- Review of Protocol 2



In 2016 CSAP continued two special projects from the previous fiscal year:

- Vapour Guidance (inputs to Technical Guidance 4 and new Protocol P22)
- Summary of Performance Verification Plans (PVPs) Issued to Date, and Preliminary Recommendations for Future Requirements

And approved the following new special projects:

- Review of Peat Analytical Methodologies and Interpretation of Analytical Results
- Mapping Drinking Water Using Geographic Information System (developed previously for CSAP)
- Toolkit #3 (Methods for Evaluation of Monitored Natural Attenuation) & Toolkit#4 (Enhanced Attenuation of Hydrocarbons (both partially funded outside of CSAP)
- Professional Judgement Paper for APs (presented at Spring Professional Development meeting)

We thank everyone involved for working together to develop guidance and tools for AP practice. Project documents from FY 2015/16 are all available on the CSAP website.

Going forward, the focus for 2017/18 will be technical review of documents that MoE is revising in support of upcoming Omnibus. In addition, we are likely funding select special projects to meet longer-term objectives.

In 2016, four scholarships were awarded to graduate students whose research is related to contaminated sites:

Laurier Collette	UBC, Geological Engineering, Hydrogeology
Marie Goddard	University of Utrecht, Geoscience, Hydrology
Matthew Simons	SFU, Earth Sciences, Hydrogeology
Paul Antonelli	Thompson River University, Environmental Sciences, Restoration Ecology

PERFORMANCE ASSESSMENT



Chair: Colin Dunwoody P.Eng., Director

Members: Eva Gerencher, M.Sc., P.Ag.
Ingo Lambrecht, P.Geo.
Duncan Macdonald, P.Eng.

Trish Miller, M.Sc., R.P.Bio.
Dave Mitchell, P.Eng.
Tara Siemens-Kennedy, MET, P.Chem.

COMMITTEE PURPOSE

The Performance Assessment Committee (PAC) is responsible for conducting Performance Assessment of submissions made to CSAP for Contaminated Site Regulation (CSR) instruments. The PAC is now also responsible for Detailed Screening of submissions as well. The PAC carried out detailed screening of 88 submissions and undertook 16 performance assessments over the last year. The feedback on the detailed screening, which is conducted for every CSAP submissions has been constructive and led to adjustments and improvements. Other initiatives that were either completed or are underway include:

- Continual review and improvements to the Performance Assessment process based on feedback and other considerations with a particular focus on accepting professional judgment where it is adequately supported
- Working with the Ministry to expand the report material that can be provided in electronic format to reduce the amount of paper that needs to be printed
- Assisting in updating CSAP's annotated Summary of Site Conditions (SoSC) which provides guidance on what should be included in the SoSC. The hydrogeology section has recently been expanded in an effort to reduce the submissions returned by MoE
- Preparing a discussion paper on the use of professional judgement for Protocol 6 submissions for input by CSAP members, the Ministry and others
- Preparing training Webinars for Performance Assessment panel members and CSAP Members. The main push this year has been with respect to the Omnibus changes to the CSR
- Updating the "Lessons Learned" database

The objective of PAC is to clarify the submission process for submitting APs and to allow professional judgment by APs.

We value your feedback and will continue to ask for your feedback in surveys, through membership update newsletter and through the POD system.

PERFORMANCE ASSESSMENT STATISTICS



PERFORMANCE ASSESSMENT CONDUCTED



PERFORMANCE ASSESSMENT TIMELINES



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

GOVERNANCE



Chair: Tony Gillett, P.Eng., Director

Members: Andrea Akelaitis, LLB
Jim Malick, Ph.D., P.Ag., R.P.Bio. (Past President, Past Chair)
Cindy Ott, P.Ag., Geo.L, P.Chem., (Past President)
Greg Sutherland, Ph.D., R.P.Bio. (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 assessment, development and recommendation to the Board for approval of governance principles, policies and practices for the functioning of the Board and Society.

In keeping with our purpose this year the Committee developed a conflict of interest disclosure form to be completed annually by board members and screened completed forms to bring potential conflicts of interest to the attention of the Board. The Committee also updated the terms of reference for all CSAP committees by addition of Conflict of Interest statements.

To promote continuous improvement to the effectiveness of Board and committee activities, we updated annual self-evaluation forms for board members and developed annual self-evaluation forms for all committees. All of these initiatives were approved by the Board. Additionally, at the request of the board, the Committee has started development of a policy statement regarding evaluation of professional and scientific organizations who may express an interest in becoming a CSAP Parent Organization.

The Committee was productive through the efforts of Jim, Paul, Cindy and Andrea. Their efforts are greatly appreciated.



Chair: Eva Gerencher, M.Sc., P.Ag., Director

Members: Dave Newton, P.Geo.
Reg North, P.Geo., P.Eng.

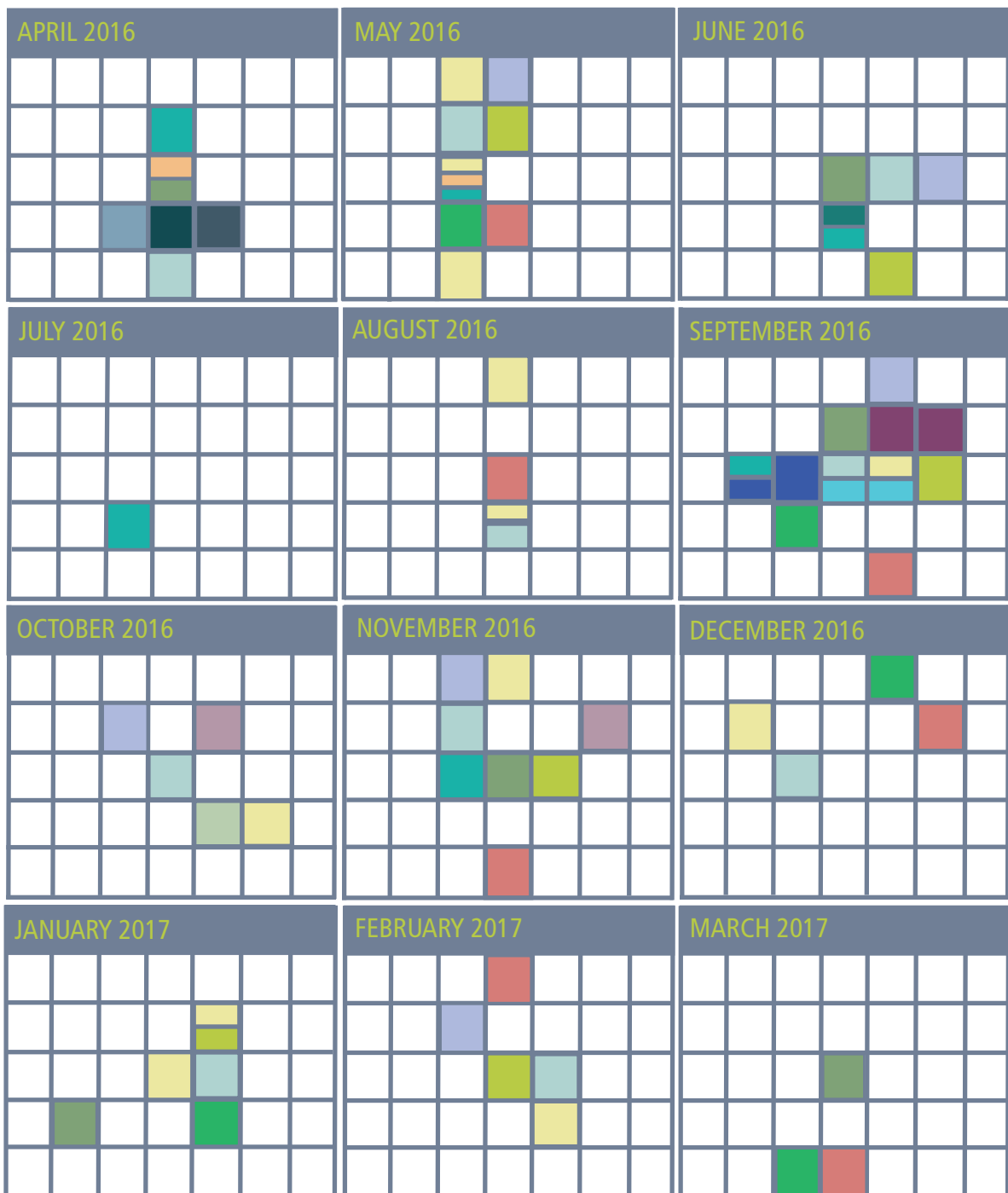
DISCIPLINE

COMMITTEE PURPOSE



In 2016/2017 the Discipline Committee reviewed and revised the remedial measures to be assessed following the determination of a deficient submission by the Performance Assessment Committee (PAC). The remedial measures have remained the same as previous years; however, an option to determine that remedial measures are not warranted has now been included. Remedial measures were assessed for three submissions found deficient by the Performance Assessment Committee. No written complaints requiring disciplinary action were submitted to CSAP this year.

ACTIVITY CALENDAR 2016 / 2017



LEGEND

 AGM	 Membership Committee	 Professional Development Workshop
 Board of Directors	 MoE Face to Face Meeting	 Regulatory Exam Workshop
 Discipline Committee	 Numerical Exam Workshop	 Regulatory Exam-Writing Webinar
 Executive Committee	 Numerical Exam-Writing Webinar	 Risk Exam Workshop
 Financial Committee	 Performance Assessment Committee	 Risk Exam-Writing Webinar
 Governance Committee	 Professional Development Committee	 Technical Review Committee

SPECIAL THANKS TO OUR STAFF

Nelly Pomareda, Operations Coordinator

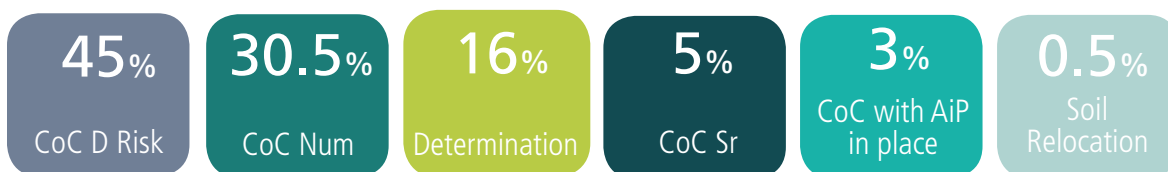
Anna Popova, Administrative Assistant

Janet Phipps, Communications Consultant

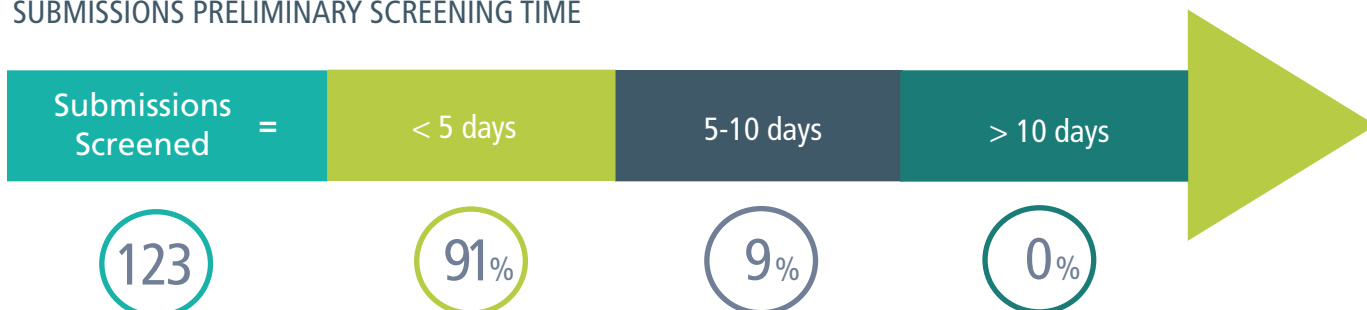


Left to right - Janet, Nelly, Anna

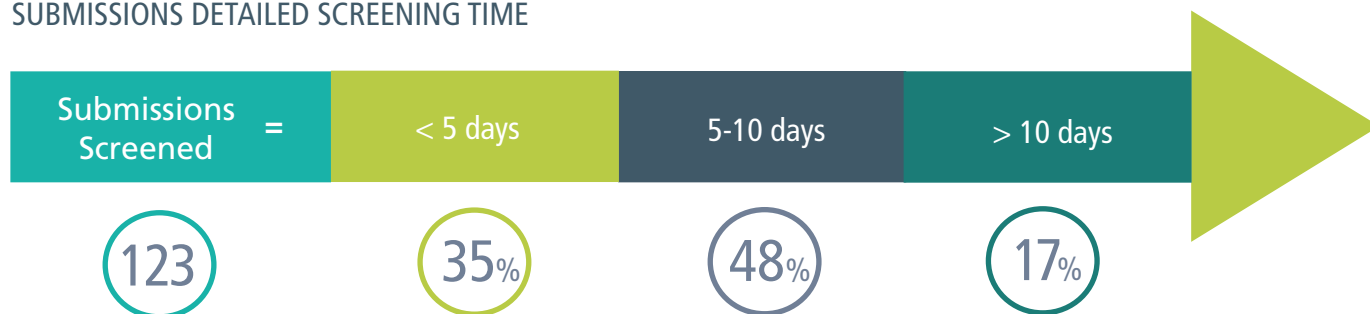
INSTRUMENT OVERVIEW 2016-2017



SUBMISSIONS PRELIMINARY SCREENING TIME



SUBMISSIONS DETAILED SCREENING TIME



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

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