

PAC Updates

Winter 2024

From a recent Performance Assessment, members are reminded to use Mann-Kendall trend analysis to evaluate groundwater plume stability when adequate data is available. Other possible tools for evaluating plume stability are on the proposed project agenda for the TRC in the coming fiscal year.

When restrictive covenants are required, timing of the registration should be noted in relation to issuance of the certification document by ENV. Situations have arisen where CoCs have been requested with an AiP in place, but the required restrictive covenant has yet to be registered on the land title. Issuance of the certification document is at the discretion of the Director and ENV should be consulted in these circumstances, prior to the COC application being made.

The PA panel RFQ responses were reviewed and verified by CSAP. Contracts have been sent out for signature and are due back to CSAP by Friday, January 26, 2024.

The PAC Q&A forum will be launching in the coming weeks.

Fall 2023

Please note that Detailed Screening completed by CSAP does not include reports that support applications for Certification Documents. Of late, SDMs at ENV have noticed quality issues in some submissions. In one circumstance, ENV requested the Submitting AP do a re-submission because of this issue. If making a Protocol 6 submission, quality of the Submission is the responsibility of the Submitting AP(s).

CSAP expects cooperation with members when conducting PAs and completing screening, both administrative and detailed. In cases where APs are not responsive or choose to overlook requested information, CSAP will exercise its right to issue cautionary letters to APs, such that outcomes from making submissions are taken seriously and APs act in a professional manner.

Please note that the Performance Assessment panel (PAP) member RFQ will be issued by CSAP in the coming weeks. Be on the lookout if you wish to apply.

Summer 2023

- At the request of ENV, consideration was made recently to revise CSAP Rule 28(2)(a) regarding the timeframe in which ENV may request PAC conduct a Focused Review or a non-random PA on a submission received from CSAP. Based on the current backlog of

applications within ENV and the timing involved with assigning Protocol 6 applications to statutory decisions makers (SDMs), which may take up to 15 business days, the rule will be revised to the recommended timeframe of three (3) months, essentially doubling the existing 30 business days afforded by the rule.

- After P6 submissions have been forwarded to ENV for signature, ENV may have subsequent email correspondence to resolve issues during review by the SDM. Given it has left CSAP and then sits with ENV, it is at ENV's discretion to request an Addendum to cover details provided in email correspondence. This in turn would require revisions to the SoSC and draft certification document.
- Revised the PA Guidelines to incorporate Focused Reviews and timing of PA responses by submitting APs.
- Currently looking to revive PA Lessons Learned for compilation and sharing during PD events and/or member updates. An example from a recent PA is included herein for a Determination application.
 - *Stage 2 PSI – Poorly screened wells*
One well was dry and could not be sampled, leaving only two wells to determine groundwater flow, which could not be achieved. This was addressed after the Stage 1 Findings report by sampling and monitoring an additional well on site.
 - *Stage 2 PSI – Poorly located BHs/MWs/SVs*
BHs/MWs were installed on the periphery of the site away from the onsite APEC, with no locations installed through the building slab or immediately adjacent the building.
 - *Stage 2 PSI – Sampling density*
Initially only one location, on the southern extent of the property, was used to evaluate vapour for the entire site. Following the Stage 1 Findings, a new vapour probe was installed, and an additional location was added to have three vapour locations investigate the site.
 - *Stage 2 PSI – Inadequate Investigation*
The sampling locations were too far away from the site APEC, and initially seasonality was not provided, BHs were too far apart, and vapour investigation was inadequate. A number of these items were addressed in the Addendum Report.
 - Collectively, the deficiencies noted did not support the application for a Determination, not a contaminated site.

Spring 2023

CSAP recently developed guidelines for time spent on average PAs for panel members and DMs to provide better estimates for CSAP's annual operating budget. For more information, refer to the "CSAP Director and Committee Remuneration Policy."

The PAC revised the PA Guidelines to incorporate Focused Reviews, timing of PA responses by

submitting APs, and minor clarification on the PA Coordinator's role. The updated version of the PA Guidelines can be found [here](#).

The PAC is also currently looking to revive PA Lessons Learned for compilation and sharing during PD events and/or Members' Updates. An example from a recent PA is included herein for a Numerical AIP application:

DSI - Poorly located MWs/SVs

Poor delineation of off-site groundwater contamination (i.e. coarse delineation) left questions as to whether numerical remediation was achievable given uncertainties with extent of contaminated groundwater beneath an off-site building. Also, shallow vapour probes did not properly assess groundwater contamination at depth.

DSI - Other

Off-site groundwater contamination extended beneath a building that was not to be removed as part of Remediation Plan. Soils were glacial till and little evidence was provided in the DSI (i.e., hydrogeological conditions) or Remediation Plan (i.e., gw drainage into the excavation) to support achieving numerical remediation in consideration of applicable DW standards and the use of an adjacent shotcrete shored excavation. Without these details, consideration was needed for a potential risk-based approach to residual groundwater contamination.

Winter 2023

1. Members are reminded that submissions made to CSAP for ENV Instruments cannot be withdrawn once logged into the system. Submission withdrawals for extenuating circumstances may be considered and approved by the PAC. Under such circumstances, the submitting AP(s) must provide a detailed rationale for their request to withdraw.
2. During the PA process, the submitting AP(s) has two months from the date they receive the Stage 1 Review Findings to submit the Addendum to the submission. Once a draft Addendum has been prepared by the submitting AP(s), a meeting with the DM and PA Panel is highly recommended. The submitting AP(s) must notify the PA Coordinator within one month (30 days) of the date of the Stage 1 Review Findings letter if they would like to request a meeting with the PA Panel and DM.
3. When substances are remediated to background concentrations, those should both be listed in Tables 4.6 and 5.3 of the Summary of Site Condition.
4. Focused Reviews conducted by PAC may be initiated through unresolved issues during Detailed Screening or may be requested by ENV through the SDM's review of the Instrument application. During the Focused Review, the DM will review the sections of the technical report(s) relevant to the outstanding items requiring clarification. The review process may involve discussion with the DS, the submitting AP(s) and/or the BC ENV.

There are two possible outcomes of the Focused Review:

- All outstanding items requiring clarification from the DS are resolved, and the submission is

sent to the ENV.

- The outstanding items requiring clarification from the DS are not resolved, and a review of the relevant sections of the report(s) indicates the potential for major technical errors or regulatory omissions that could impact the conclusions of the reports. In this case, the DM will provide the PAC with the results of their Focused Review; the PAC will review the information and determine if a non-random performance assessment is warranted.
- 5. Look for the Site Investigation Protocol regarding soil relocation from ENV coming in February, which will come into effect on March 1, 2023, with the CSR Stage 14 Amendment.

Fall 2022

- We request that any members aware of ENV applications provide specific details to CSAP so we can track the review timelines. This information would include the Site ID, ENV application type (P6 Pre-approval, P4, P9, etc.) and when the application was made.
- A reminder that the [CSAP Performance Assessment Guidelines](#) have been updated and now posted on our webpage.
- CSAP will be starting up a Q&A forum shortly to assist the membership with technical and/or regulatory questions they may have on ENV submissions.
- CSAP will be holding a strategic planning session with ENV on December 9, 2022. If there are any issues that members would like to put forward for the agenda, [please email Patricia](#).
- Members should please consider appending a site figure to the SoSC for ease of reference when reviewing Sections 4.5 and 4.6 of the SoSC.

Summer 2022

Reminders

Members are reminded of response timelines for Performance Assessments (PAs). Responses are due within two months of the issuance date for the Stage 1 Findings. Extensions are by request only and require adequate rationale.

Members are reminded of the requirements for Remediation Plans in Section 1 of the CSR in support of AIP applications. Also, where risk-based AIPs are sought, supporting SLRAs or DRAs need to be completed as part of the AIP application to CSAP.

Q&A forum

In the AGM Member Survey, the committee sought feedback from the membership on a potential Q&A forum to assist members with technical and regulatory questions, which would be administered by the PAC. There was overwhelming support for this initiative.

The goal of the forum will be to establish Q&As to share with the membership. Answers would only be provided as advice to members and would be non-binding to CSAP and its directors. The proposed framework for questions is being finalized with the anticipated launch date for the forum

in Fall 2022. More details will be forthcoming.

PA guidelines

The PA guidelines were revised in July and can be found on the CSAP website [here](#).

Spring 2022

BC ENV has indicated that the revised Summary of Site Condition smart form is under preparation and will be available soon. In addition, they are converting many other forms to smart forms.

To save these forms during preparation (i.e., prior to exporting to a PDF, where the “smart” fields will no longer be available) a BCeID account will be required. All APs, as well as QPs and practitioners that complete SoSCs or other BC ENV forms, are encouraged to sign up for a BCeID account at [BCeID - Home](#). Note, a BCeID account provides secure access to online government services and is the platform that will be used by BC ENV going forward.

What is the PAC working on?

- The Performance Assessment Guidelines are under revision to ensure they are up to date; the revised guidelines will be posted to the CSAP website in June 2022.
- Watch your email for a survey re: a potential Q&A forum to assist members with technical and regulatory questions that would be administered by the PAC. We are hopeful we will get this up and running by the fall.
- The PAC is working on re-vamping our “Lessons Learned” and developing categories of issues identified during Performance Assessments, including both numeric and risk-based categories. Going forward, we will be sharing learnings from these categories in future Members’ Updates.

Winter 2022

1. New CSSAF online – When making submissions, please use the Contaminated Sites Services Application Form now available on the ENV webpage, found under ‘Guidance and Resources – Forms’. Once completed, you can generate a pdf for signature. Please also note that for ENV Instruments, select ‘Certification Documents’ in Section 5 for Determinations, AiPs, and CofCs.
2. CofC Applications – Template text in Clause 1 of Schedule B must not be revised.
3. ENV is planning to issue a new online Summary of Site Condition (SoSC) form sometime in March 2022. It’s use in support of Submissions will be required as of the date of signing, as it then becomes part of the regulation.
4. AiP Conditions – Any previous requirements or conditions on an existing AiP and how they were met in support of a subsequent CofC application must be documented in Section 5.2 of the SoSC.

Fall 2021

1. Credit letters – The requirement for credit letters should be defined in advance and they should accompany a submission. The timeline to review a submission is approximately 2 months and the credit letter would be assessed with the submission.
 - TSK Qs: is the 2-month timeline the CSAP or ENV timeline? Should specify? Assuming it would be ENV that would review credit letters? We should also add context for this – when would one be required?
2. If you suspect a covenant is required, this requirement should be established in consultation with ENV prior to making your submission (Covenants must be legally prepared and registered on the Land Title).
 - TSK Qs: Can we provide an example of when a covenant might be required? Again, I think we should provide context for where this update is coming from (I'm not clear on this).
3. ENV input was recently received during a Performance Assessment. It was clarified that in the case where there is the potential for terrestrial habitat based on the presence of sensitive habitat within 300 m of a site (per requirements in P13), a habitat assessment must be completed for the site by a RPBio and that the P13 Appendix B Habitat and Receptor Assessment form must be included with the submission.
4. The Risk APs and members of the ENV met on October 20th to discuss the revised risk assessment protocols (P1 and P13) and associated regulatory requirements. A summary of the key learnings from the meeting will be prepared and shared with the AP community. APs are encouraged to distribute the summary to QPs conducting risk assessments in BC.

Summer 2021

A reminder that questions and requests for information must be submitted to through ENV's Enquiry Management System. The following tips are provided to ensure the timeliest response:

- To get detailed information about a site you must provide the Site ID number, and if it the enquiry will require more than 1 hour of ENV's time, you must submit a CSSAF.
- A generic question may not receive a detailed response and a site-specific request may be required.
- ENV may decide that it is not best to respond in email; ENV is being careful with how they respond in email and may decline to give instructions.
- Theoretical policy questions don't fit with ENV's records system and ENV will not respond to policy questions by email. Questions re: Protocols may be answered.
- ENV's goal is to respond as quickly as possible – current average response time is 2 weeks.
- All requests must be written/emailed. Site-specific phone calls/meetings with ENV can be scheduled by sending a CSSAF with an agenda to the Client Information Officer, which includes information about the site/situation and a site ID.
- If there is a question that is not appropriate for the enquiry management system (i.e., policy question), the question could be brought forward to the CSAP Executive who will determine if a formal question should be submitted to ENV.

1. Members are reminded to use the ENV's current Summary of Site Condition fillable pdf for all submissions to CSAP/ENV. A link to the most recent version of the form was provided in the June 16, 2021 Site Remediation News titled 'Revised site identification webpages and new Site Disclosure Statement online form now available' and is provided here for your convenience: <https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/guidance-resources/forms>.
2. In a recent submission, the potential requirement for a covenant was raised. During a discussion, ENV indicated that the Director has to consider CSR Section 48/EMA Section 53(3) and may require a covenant. Examples may include a Section 219 covenant under the Land Title Act, such as a covenant related to ongoing operations and maintenance of a risk mitigation system at a site.

Screening Updates

Preliminary Screening

Both CSAP and ENV submission fees cheques should be sent to CSAP together with the submission. Cheques sent directly to ENV, or prior to submission, or missing CSAP reference number will not be accepted. Please instruct your clients and accountants.

The Ministry is moving to having all enquiries regarding applications, whether they be from APs, QPs, clients/industry or even internal to government, be submitted to the Client Information Officer at csp_cio@victoria1.gov.bc.ca.

Please note that any other enquiries are to be sent to the email addresses specified on our [Contact Us webpage](#). For examples SiteID related questions go to SiteID@gov.bc.ca and technical questions would be submitted to remediationFAQs@gov.bc.ca

Please subscribe to the Ministry Site Remediation News. You will find the instructions here, <https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/site-remediation-news>

Detailed Screening

Scope Of Review Completed by Approved Professional

APs are reminded to include under the SoSC "SCOPE OF REVIEW COMPLETED BY APPROVED PROFESSIONAL" all reports that have been reviewed as part of the regulatory submission. Such a list may include the Stage 1 PSI, Stage 2 PSI, DSI, CoR, HHERA and PVP's as appropriate.

Spring 2021

Members are reminded that preapproval from the ministry is required when the entire extent of contamination at a non-high risk contaminated site will not be delineated and/or remediated and will not be included in an application for an Approval in Principle or a Certificate of Compliance. The preapproval must be obtained prior to an application for an Approval in Principle or Certificate of Compliance under Protocol 6. Note that the preapproval requirements for Protocol 6 submissions also apply for release requests under the site identification process.

Consult the ministry's preapprovals website for commonly encountered scenarios where full delineation or remediation may not be possible. Be aware that the scenarios requiring preapproval from the ministry include flow-through contaminant plumes and contamination caused by the placement of contaminated fill from multiple widespread and undetermined historical sources with no identified responsible person or that has been identified as wide-area contamination.

Overall submission numbers are down, but we hope to see a return to more regular numbers this summer given the adjustments made in meeting process requirements.

CSAP is committed to continue working with BC ENV to help streamline the process where feasible.

Screening Updates

Preliminary Screening

The new CSAP Transmittal Letter was uploaded on March 19, 2021 (changes were made to the front page, and Land Title requirement). It can be found at the CSAP website, [Make a Submission/Package section](#), along with new ENV forms.

Detailed Screening

The instrument templates (CoC, AiP etc.) are currently under revision and are anticipated to be released in the Spring so please regularly check the CSAP Website if you are preparing a submission. If you are preparing a submission information which used to be contained in Procedure 12 can be found under "[Preparing applications for contaminated sites legal documents](#)" under Professional Reliance.

Recent submissions documenting communications with affected parcel owners (formerly called AG11) have been meeting detailed screening requirements. The checklist formerly found in AG11 can be found under the heading "[Contamination Migration](#)" and the link under text can be found here "[Source Parcel Responsible Persons and Affected Parcel Owners](#)".

Winter 2021

PAC is working with BC ENV to confirm the best path forward on submissions made after the CSR Stage 13 Amendments came into effect on February 1, 2021. This includes possibly

streamlining P6 Preapprovals for Wide Area Fill and Flow Through/To sites and clarifying any P12 issues as it may relate to managing 'High Risk' sites. PAC will not have all of the answers that may arise out of current Performance Assessment, but CSAP and BC ENV are committed to working together to help expedite submissions in light of the recent regulatory changes. Prior to making a submission, members should familiarize themselves with the changes and seek opinion from colleagues in support of key decisions on the need for P6 Preapprovals or BC ENV involvement.

Screening Updates

Preliminary Screening

The Administrative Screener reminds you that a new SoSC fillable PDF has been released by ENV and must be used by Submitting AP's. In addition, new SRCR, NoOM and NOIR have also been released and are fillable PDF and are also required for regulatory submissions. Members are reminded to visit the CSAP and ENV websites to download these forms.

Detailed Screening

Local Background

Instruments have recently been seen which reference "Regional Background" in Schedule C of the Instrument. Submitting AP's are reminded that the correct terminology is "Local Background" as referenced in Section 6(2) of the EMA. Only in P4 does these substances get referenced as regional and in Section 2 states "This protocol provides regional background concentration estimates for specified inorganic substances in soil in British Columbia as well as procedures for establishing local background concentrations in soil on a site-specific basis for use under the Contaminated Sites Regulation.

Forms for AP Submissions

AP's are reminded that current forms must be used in submissions. Please check the ENV website to ensure you are using the most recent SoSC, SRCR, NoOM, NOIR and others. Older version of the forms submitted to ENV prior to Feb 1st are acceptable however the latest version of the SoSC must be used.

The instrument templates are currently under revision and are anticipated to be released in the Spring so please watch the CSAP Website

Fall 2020

The PAC provides the following comments based on lessons learned from performance assessments:

Arm's Length AP Reviews

For performance assessments conducted on submissions requiring an arm's length review (see the CSAP Rules at <https://csapsociety.bc.ca/wp-content/uploads/CSAP-Rules.pdf> for when an arm's length review is required) the approved professional(s) is expected to remain arm's length during the performance assessment. To confirm the arm's length review status, the approved professional (s) should provide a cover letter indicating that they have reviewed the Additional Information Addendum prepared in response to PA Stage 1 PA Panel comments; and, agree with the information presented.

Boundaries of a Site

A recent performance assessment considered application for a Certificate of Compliance for a large property in which CSR Schedule 2 activities had only occurred within a small portion. AECs and COCs were limited to the areas of Schedule 2 activities, hence investigation and remediation were focused on these areas. The panel noted that both presence and absence of contamination are expected for investigation to qualify for legal instruments. Therefore to qualify for a Certificate of Compliance for the Schedule 2 use areas and the rest of the property, investigation of the entire legal parcel area would have been expected to satisfy the ministry that there is no likelihood of contamination elsewhere on the larger parcel of land. ENV provided the following comments which supported the panel's assessment: *"Where one is seeking a CoC for a large property such as this one where the Schedule 2 use occurred within a small footprint of the property it's best to seek an instrument for the metes and bounds of the Schedule 2 use to avoid having to investigate the remainder of the property to a level that would satisfy the director that there is no likelihood of contamination elsewhere. This is because the presence of contamination is not contingent on a Schedule 2 use but when a director issues a CoC it confirms an absence of contamination or satisfaction of risk-based standards for any residual contamination that may be present."* Note that a Protocol 6 director's approval to obtain a CoC for a part site is required. The relevant ENV documentation is Procedure 6. Establishing the Boundaries of a Site.

Technical Review Committee Updates:

Currently the TRC has two active projects:

Arsenic in Soil Background Assessment

As a result of the Stage 10 Amendments, practitioners identified that arsenic in soil was now becoming a challenge to manage at their sites. This issue was communicated to BC ENV and they asked CSAP to collect some more information on the issue. Over the summer the TRC polled our members to collect some more information on this issue (e.g., locations, cost implications, effect on schedules, etc.). Results of this survey were shared with ENV and the next step was to hold a workshop with ENV and a few CSAP members to discuss the information and identify next steps. The workshop was scheduled for this fall; however, it has been postponed until after the election when ENV can participate.

CSAP Guidance for Assessment of Soil Vapour and Ambient Air Phase 3

The first phase of this project was conducted in 2018 and involved the identification of 22 topics that CSAP practitioners and ENV identified as benefiting from some further guidance. Of the 22

topics, nine were selected to move forward for guidance development. During the second phase of this project, four of the topics were selected for guidance development, which culminated in the document titled, CSAP Guidance on the Assessment of the Soil Vapour to Air Pathway. This document was finalized in August 2020 and is currently published on CSAP's web site (see link below). The third phase of the project will involve addressing the remaining five topics that were identified earlier. An RFP will be released shortly for those interested in being involved in developing the guidance.

TRC documents completed over the past year include:

- PFAS Guidance Document (January 2020)
- CSAP Petroleum Hydrocarbon review (August 2020)
- CSAP Guidance on the Assessment of the Soil Vapour to Air Pathway (August 2020)

Copies of these and previous TRC project deliverables are posted online for easy access and can be found at this [link](#).

If you have any suggestions for a topic that the TRC could tackle, please contact [Christine Thomas](#), Chair of the TRC.

Summer 2020

Draft Final Determination instrument and cover letter should match ENV released Preliminary Determination wording and format and be sent in between 35 and 60 days after release date to CSAP administrative screener (Anna) and NOT directly to ENV.

As highlighted by the TRC a factual document has been released which presents findings of a review of petroleum hydrocarbon data in soil and groundwater from issued legal instruments. AP's and practitioners are encouraged to review this document for guidance purposes.

As highlighted by the PAC, P6 Approvals are required where the entire extent of contamination has not been addressed and where the legal instrument application does not include all affected parcels.

For AG11 Communication packages, submitting AP's are requested to present a comprehensive summary of the correspondence in a clear, chronological manner (potentially in tabular format) to aid review by the screener. (i.e. if the initial AG11 was updated to include additional correspondence this should be d not simply appended to the package).

In order to expedite the Screening and ENV release of instruments, AP's who are Submitting for multiple instruments are requested to include an overall plan that clearly identifies the locations and relationships of the Source Site and Affected Parcels and their respective Site Registry ID's where possible.

Submitting AP's are reminded to please include email addresses for the applicable parties in the instrument cover letter.

Should you have any questions with any of these updates please send your comments to Anna Popova who will direct as appropriate.

Spring 2020

Recent submissions have been found Protocol 6 ineligible due to lack of Director's Approval not to delineate and remediate the entire extent of contamination. As stated in Protocol 6. Table 2, Item 1 - a Director's Approval is required prior to application for a legal instrument if the submission does not include the entire area of contamination, including contamination at the source parcel and contamination which has migrated from that parcel to a neighboring parcel or parcels. The requirement for a Director's Approval not to delineate and remediate the entire extent of contamination includes all neighboring parcels affected by migrating contaminants, including those that do not fall within provincial jurisdiction.

Lessons Learned

A recurring lesson learned from performance assessments involves technical reports submitted for legal instrument applications which are limited to the most recent environmental investigation and remediation information, with historical reporting provided in appendices. Environmental work to achieve site closure often requires many years, if not decades, to complete and many previous reports and related documents, possibly by multiple consultants and regulators may have been prepared for the site. While it is recognized that the effort required to consolidate the historical reporting with the current investigations and remediation may be significant, it is necessary to provide context and rationale for the technical work undertaken for identification of APECs and PCOCs, delineation of COCs and remediation to achieve numerical and/or risk-based standards.

Site investigation reports, remediation plans and confirmation of remediation reports submitted for legal instrument application are the source documents relied upon for assessment of site conditions and reviewed in a performance assessment. These documents are expected to be comprehensive and therefore to list, review, summarize and interpret all relevant current and historical site investigation and remediation data and documentation for a site and surrounding lands. The requirement for comprehensive reporting of site investigations and remediation is outlined in ENV's Technical Guidance

11. Guidance for a Stage 2 Preliminary Site Investigation and Detailed Site Investigation and CSAP's Practice Guidelines.

Detailed & Administrative Screening Committee Updates

Our most recent webinar “Lessons Learned and More” was a great success. Focusing on reviewing recent preliminary and detailed screening issues and reminders, we broke a record for most attended CSAP webinar. We note that the software we used had a limit of 100 participants, unknown to us, and some of you may not have been able to log in. Should you have missed this webinar please view at <https://csapsociety.bc.ca/members/pd-webinars/>.

Winter 2020

BC ENV updated the SoSC (version 2.3) and posted a new fillable PDF. You can find CSAP’s fillable version [here](#).

Please note that the ministry form does not include the P21 checklist for water use evaluation included in the CSAP SoSC. This checklist is not mandatory for inclusion with the SoSC, but does provide a thorough list of required information for water use determinations.

Reminder that completion of the CSAP Submission Transmittal Letter is mandatory and a hard copy must be provided with each submission for a legal instrument. Please note that dates and signatures for submission documents revised during the detailed screening process or performance assessment must be current. This includes the SoSC and draft legal instrument.

BC ENV has provided clarification for a comment on a P21 related Q&A presented at the Fall PD Workshop. The question and BC ENV clarification follow.

Q. If your site lies within an area of a mapped aquifer, but one can demonstrate it is not actually an aquifer (i.e. hydraulic characteristics or water quality), is a Water Use Determination (WUD) required from BC ENV?

a. Yes

b. No

A. b) As long as it can be shown to meet Protocol 21 requirements, then no formal WUD is needed from BC ENV.

Annette Mortensen, Senior Contaminated Sites Officer provided the following clarification: Thank you for the opportunity to clarify the P21 question. While I agree that “no formal WUD is needed as long as it can be shown that the site meets the Protocol 21 requirements”, the Q&A gave the impression that a mapped aquifer can be exempt from DW use by showing it does not have the required hydraulic characteristics. This exemption option is not available in P21, thus a WUD would be required if making this argument (see further details below). However, there is an exemption option in P21 for mapped aquifers with poor natural water quality and if the site fulfills this requirement there is no need for a WUD from ENV. The CSAP question, in its current form, includes both hydraulic characteristics and water quality and cannot be answered by a yes/no answer. To avoid confusion, I suggest rewording the question to include poor natural water quality only.

P21 specifies that current drinking water use applies to all mapped aquifers. For unconsolidated aquifers, this is described in Figure 1 and for bedrock aquifers additional text is included in Section 6.0 and Figure 4. In general, mapped unconsolidated aquifers fulfill the hydraulic yield requirements for a viable aquifer. The only site I have ever seen where this was not the case, was where the aquifer boundaries were not correctly mapped on IMap. Here a WUD application can be made to ENV showing that the mapped aquifer is not present on the site using site-specific data. For bedrock units, it is fairly common to measure yield in the shallow part of the aquifer that does not fulfill the requirements for a viable aquifer, however, the aquifer is mapped based on higher yielding fractures deeper in the bedrock.

Thus, future drinking water use applies regardless of site-specific hydraulic data showing that the shallow part of the bedrock is not a viable aquifer. If a WUD application was made based on site-specific bedrock data alone, it would not be approved by ENV. The only option for a DW exemption would be a WUD showing that the shallow bedrock acts as a natural confining barrier (NCB) protecting the deeper more productive part of the bedrock (note, no WUD application has yet been approved showing the bedrock acts as a NCB).

Sites with poor natural water quality are exempt from future drinking water use if they fulfill one of the following requirements:

- TDS > 4000
- site located within infilled marine/estuarine foreshore; or
- sodium/chloride above DW standards for sites within 500 m of a marine/estuarine foreshore.

This applies to mapped aquifers as well and no WUD is required from ENV if the P21 requirements are fulfilled (note, this is described clearly in the text and the Figure 1 flowchart, however the bedrock flowchart could be updated to make this exemption clearer for mapped bedrock aquifers).

This advice is consistent with how Protocol 21 is written and how ENV has made WUD decisions since the release of Protocol 21. If CSAP find that the typical interpretation of P21 differs from the above advice, please let us know so it can be corrected.

Detailed & Administrative Screening Update

Screening Notes

- **Lessons learned**

To avoid lengthy discussions and back and forth between the preliminary screener (PS), detailed screener (DS) and submitting AP, SoSC forms for submissions with multiple instruments, such as for a source site and one or more affected parcels should be prepared in such a way that the readers (PS, DS and ENV) can understand the correlation between all sites from the SoSCs and instruments. This means that all SoSC forms should relate to each other and that the full story should be apparent in all

related SoSC forms. This includes, but is not limited, to a clear identification of the source site, the affected site(s), which site is affected by which contaminants, delineation issues, which COC was remediated to which standard, using numerical or risk based standards, etc.

Explanations can be provided in SoSC Sections 2, 4.1, 4.8, and 5.6.

- **Use of CSAP PCOC Screening Document**

The CSAP PCOC screening document titled Potential Contaminants of Concern at Selected Commercial and Industrial Land Uses, June 2018, is intended as a guidance tool and not considered exhaustive, nor is it considered prescriptive. As stated in the PCOC screening document *"The PCOC lists in this document are not exhaustive, nor are they intended to be prescriptive. These lists are based on literature review, input from CSAP membership, and our own experience and are intended as a guide only. This document includes the opinions and suggestions of the authors and does not necessarily reflect the opinions and recommendation of CSAP or the Ministry of Environment and Climate Change Strategy."*

It is noted that the PCOC screening document considers differentiating between primary and secondary contaminants for PCOC selection and provides an example for gasoline contamination. Please be aware that ENV has not provided guidance on the assessment of CSR regulated substances as primary and secondary contaminants in fuels or other contamination sources. Therefore, if the selected approach for PCOC selection includes differentiation between what the practitioner considers primary and secondary constituents of a potential contaminant source, the decision to eliminate regulated substances will require a site, media and contaminant specific rationale to discount regulated substances and the approach may not be acceptable to CSAP and ENV. A thorough investigation of contaminant specific PCOCs is the preferred approach.

Fall 2019

The Performance Assessment Guidelines have been updated and posted to the CSAP Website <http://csapsociety.bc.ca/wp-content/uploads/PA-guidelines-Revised-SEPT-2019-v2.pdf>

The update includes a new category of Performance Assessment outcomes termed "Incomplete". Section

6.3 of the PA Guidelines describes this category as follows, "In rare circumstances, such as when a landowner decides they no longer need a legal instrument for their contaminated site, or does not engage an AP(s) for their services during a PA, a PA may be categorized as incomplete. If during the PA process such circumstances are encountered, the submitting AP(s) are required to provide, in writing to the PA coordinator, a request for the PAC to review the circumstances and assess eligibility for an incomplete PA. Documentation should include communications and or documents providing evidence of the circumstances leading to the request. The PA Coordinator will respond to the request within 1 month".

Detailed & Administrative Screening Update

Submission Review

59 submissions have been received since April 1st, 2019 at a rate of about 8.5 per month and only slightly below the pre-omnibus rate of 10 per month.

42 of these submissions have been screened under the CSAP Screening process and the instruments issued by ENV to the stakeholder(s). Of the 42 instruments issues;

- 74% (31) were for Certificates of Compliance of which;
 - half (16) were issued to numeric standards and,
 - half (15) were issued to risk standards
- 19% (8) were for Determinations, and
- 7% (3) were for Approvals in Principle

Of the Certificates of Compliance issued to risk standards, 63% (10) contained an exclusion for drinking water as a regulatory control to address groundwater contamination.

The breakdown of the submissions by instrument type is consistent with those observed in 2018.

Screening Notes

The screening issues most commonly identified have remained consistent and the most common questions/clarifications requested by screeners refer to the following;

Detailed Screening Tab

- 22a Are the risk controls listed on Schedule B of the CofC, the PVP and the SoSC consistent, with all risk controls included in all documents?
- 26 Do instrument substances correspond with CSR

Schedules? Summary of Site Condition Tab

- 4.4a Has "other" been selected, and are clear details on what has been applied provided?
- 4.4b Is sufficient information present in the SoSC to determine if appropriate attenuation factors have been used and do they agree with the conditions on the instrument?
- 4.4c Do the conditions make sense and are they consistent with site use?
- 4.5a Are substances listed correctly?
- 4.5b Are substances spelled correctly?
- 4.6e if the site has been classified a high-risk site: what are the high-risk site conditions

Summer 2019

A recent performance assessment highlighted one of the key elements in the conceptual site model (CSM) underlying Technical Guidance 4: Vapour Investigation and Remediation (TG4). It is important to note that vapour investigation at the foundation elevation represents the worst- case location, even for a deep parkade structure with a shallow vapour source. The

submitting

AP's rationale was supported as follows:

- In this scenario, the Site is a newly constructed high rise, with 20m of underground parkade structure. The source of vapour is an ongoing offsite source, near surface. The pre-construction vapour contamination identified onsite was near surface. The vapour remediation investigation location was at the bottom of the parkade.
- The performance assessment panel, along with most members of the PAC committee, found this rationale surprising because of the difference in elevation. Specifically, why wouldn't the ambient air in the first level of parkade represent the worst-case location for potential vapour intrusion?

The key points of the CSM in in this example are as follows (and they are also referenced and linked in TG4):

- The primary process for soil vapour entering buildings is typically soil gas advection (SABCS, 2006);
- Most of the soil gas flow occurs within 1 to 2m of the foundation (SABCS, 2006); and
- Intact concrete is virtually impermeable to air flow (USEPA, 2012).

References:

- Science Advisory Board for Contaminated Sites in British Columbia (SABCS), Guidance on Site Characterization for Evaluation of Soil Vapour Intrusion into Buildings. February 2006.
 - Office of Solid Waste and Emergency Response U.S. Environmental Protection Agency (USEPA), Conceptual Model Scenarios for the Vapor Intrusion Pathway. February 2012.
-
- For resubmission of a legal instrument application that was concluded to be deficient under a performance assessment (PA), the document package is expected to be standalone. Therefore, all relevant technical reports and supporting documents from the original submission and revised or additional documents prepared to address information requests from the PA, are to be included. Please ensure that the documents and forms for a resubmission application are complete. Omissions will result in a delay in processing.
 - As stated in the Performance Assessment Guidelines, where Stage 1 review findings for a PA indicate that "Additional Information is Required": The AP has two months from the date they receive the Stage 1 Review Findings to submit the required information in an Addendum to the submission. If more time is required, an extension outlining reasons

for the delay may be requested from the PA coordinator. To avoid long PA processing times, no more than three extensions will be accepted (up to 6 months).

- A recent PA which included a P21 drinking water release obtained for chloride in groundwater identified a requirement for background approvals for the parameter of concern (chloride in this case) for all media (e.g. under Protocol 4 and Protocol 9). ENV clarified that the P21 release cannot be relied on to dismiss chloride in soil as background. Aquatic life water use was also considered for the chloride concentrations.

Detailed & Administrative Screening Update

- A recent detailed screening for a submission in which a Protocol 2 Site-Specific Numerical Soil Standards (SSS) was derived as noted on Schedule C of the instrument provided a lesson learned regarding documentation on the use of this approach in the Summary of Site Condition (SoSC).
Section 4.4. of the SoSC 'Applicable Numerical Concentration Standards and Criteria' indicates that 'If Other is specified above, please explain: (applicable or excluded guidance, protocols or policies specific to the site)'. Therefore, if the submission documents include a Protocol 2 derived SSS, then the "Other" box should be checked and appropriate comment provided, including the substance(s) for which SSS's were derived. Also, if substances were remediated to a P2 derived SSS the information should be included in Section 5.3 of the SoSC in the Background column which includes P4 and P9. Please note that if the P2 derivation required a Director's Decision that this ENV document must be listed in SoSC Part 3: Document Summary and Schedule D of the legal instrument.

- CSAP was requested by Land Remediation to undertake a Detailed Administrative Screening (DAS) of CSAP submissions. The DAS started on January 1st, 2015. Its primary objective is to: "Ensure that the sufficient documentation has been supplied with the CSAP Submission to meet the requirements of Procedure 12".

Since the implementation of the DAS process, many of you have indicated that the review process has been beneficial to your practice. It has become an integral part of the process for the submission for regulatory instruments and we have received positive feedback from the statutory decision makers (SDMs) at ENV.

- Please remember to mark your calendar for our upcoming webinar on the DAS on October 3rd, 2019 from 10–11 am. We will be reviewing the Preliminary and Detailed Screening Process, the screening tools, and the Annotated SoSC and discussing the feedback received from both ENV and submitting APs.
We will also cover the lessons learned from the screening process and will review some statistics gathered from the screening spreadsheets to identify common problems associated with submissions.

Winter 2019

Members are reminded that where communication regarding policy or other issues is sought with ENV during performance assessments (PA's), the communication will be facilitated through the delegated member (DM) and copied to the submitting Approved Professional (AP). ENV and the PAC have noted that in some cases parallel communications from submitting APs and the PA panel have occurred with ENV. This has resulted in delays to addendum submissions and in some cases has substantially increased the time for completion of a PA.

Detailed & Administrative Screening Update

The Detailed Screening Committee has been meeting bi-monthly and is working on a few initiatives to benefit the membership including updating of Procedure 12 procedures for preparing and issuing contaminated sites legal instruments.

The DSC has also been tracking common issues or omissions in regulatory instrument submissions. A summary of some of the most common are provided below and submitting APs are kindly reminded to undertake a final check of their submission for these;

- Provide enough information in the SoSC to determine if applicable water use standards have been selected
- Make sure that any risk controls listed on Schedule B of the instrument are consistent with the PVP and SoSC.
- If "other" is selected under Section 4.4 of the SoSC make sure to provide clear details on what attenuation factors were applied to soils vapour and make sure this agrees with the conditions on the instrument.
- Please check the list of substances remediated for a CoC or investigated for a Determination are consistent between the SoSC and the instrument.

Preliminary Administrative Screening Update

5 top issues:

Wrong templates being used:

- Old CSAP Transmittal Letter Template is used. Please use this current template: [\[LINK\]](#)
 - Old BH log spreadsheet template is used. Please use current template [\[LINK\]](#)
1. CoC cover letter is missing mortgage holders contact information.
 2. Legal description does not match Land Title.
 3. List of reports included in the Summary of Sites Condition (SoSC) and instrument template do not include AG11 Summary.

Please refer to our website [CLICK here for Submission Package Forms](#) for the current CSAP Transmittal Letter template, Annotated SoSC and current BH log excel spreadsheet.

Current instrument templates, cover letters and recently released ENV instruments are available through the Submission Manager: www.csapsubmissions.com.

Fall 2018

1. An issue has been identified relating to site risk classification where vapour concentrations with subslab attenuation applied exceed the Protocol 11 upper cap concentrations, but ambient air measurements within the building show that the breathing zone concentrations of volatile substances meet CSR Schedule 3.3 vapour standards. ENV has clarified that if subslab with attenuation fails high risk, ENV classifies the site as high risk regardless of the breathing zone concentrations. The response from ENV is based on the Protocol 12 flowchart and the exposure pathway questionnaire for vapour exposure as below:
HV-1: Do substances in air or soil vapour exceed UC concentrations for human inhalation for the applicable land use?
HV-2: Is the site land use urban park, agricultural, residential, commercial or industrial? If yes to both then = high risk
CSAP members are encouraged to contact ENV to seek clarification regarding situations where soil vapour concentrations are classified as high risk and ambient air concentrations are being considered for site risk classification.
2. ENV's review of the Summary of Site Condition Section 4.2 Hydrogeology section for pre- Omnibus submissions identified issues that were not noted in Detailed Screening and required a Water Use Determination. The issues were as follows:
 - Site located within 500m of Fraser River; poor natural water quality exceeding sodium standards. Ruled out DW and AW despite site located next to the Fraser River. They needed a water use determination for no AW; ultimately agreed that AW does apply and submission to be re-submitted.
 - Poor natural water quality, 570 m from Fraser River, exceeded TDS but missing elements in P21; DW excluded. Water Use Determination was required and ultimately received from ENV.
 - Adjacent to Fraser River, greater than 500 m; estuarine receptor so Water Use Determination was required.Please ensure that identification of water uses follows the procedures in Protocol 21 and considers the guidance in TG6 and TG8.
3. Members are reminded that the Protocol 22 Parkade Attenuation Adjustment Divisor (PAAD) can only be used in a risk-based submission. Use of the PAAD relies on the assumption that an engineered system is in place to increase the air exchange rate within the parkade; such a system is considered risk management, and thus, the requirements for risk management in Technical Guidance 4 apply. Reference should be made to Protocol 22 and Technical Guidance 4 for clarification.

Detailed Administrative Screening Update

The Post Omnibus submission rate continues to lag below historic averages (ten per month) with forty submissions received between Nov 1st, 2017 and October 9th, 2018 (an average of little more than three a month).

AP's are reminded that the [Transmittal Letter](#) is mandatory and to please use the updated template on the CSAP Website and submit as a Word document (the Word format allows the information to be directly imported into the CSAP database, saving hours of data re-entry).

The CSAP Detailed Screening Committee met with the ENV & will be working on the tracking of conditions in the instruments to allow for the updating of the ENV instrument templates among other tasks.

Summer 2018

1. Clarification regarding the vapour refinement step for substances listed in Table 1 of Technical Guidance 4 was provided by the ministry at the November 2017 PD Workshop. A Q&A relating to this clarification is provided below.

Q: Can the absence of detectable concentrations of substances listed in Table 1 of TG4 be used to refine the list of vapour PCOCs when the contaminant source is not diesel or gasoline. For example, if naphthalene is identified as a vapour PCOC at a site where poor quality fill has been identified as an APEC, can it be removed as a vapour PCOC if no detectable concentrations are reported in soil or groundwater?

A: Yes, the substances listed in the Table 1 of TG4 can be removed as vapour PCOCs regardless of the source. Substances not listed in Table 1 of TG4 cannot be refined based on non- detectable concentrations in soil and groundwater data and must be assessed using the approaches described in TG4. (Reference – Peter Kickham at November 2017 PD Workshop)

While the reference to gasoline and diesel sources in TG4 appears to limit the refinement step for the substances listed in Table 1 to vapours originating these sources, the ministry response to the question broadens this interpretation to allow the vapour refinement step for Table 1 substances originating from other contaminant sources.

2. The PAC has been reviewing the Submissions Screening Guidelines and the Performance Assessment Guidelines. The following clarifications have been added to the Guidelines, and the new versions will be posted to the CSAP website in August:
 - A. During a Performance Assessment (PA) only a single Addendum report can be submitted. This typically includes a Draft Addendum report submitted to CSAP prior to the submitting AP(s) meeting with the PA panel, followed by a Final Addendum report within two months from the date that the submitting AP(s) receive the PA Stage 1 Review Findings.
 - B. Submitting AP(s) must respond to Detailed Screening questions within 30 days of receiving them from the Administrative Screener (Anna).

3. For the specification of reasonable and foreseeable future land uses at a site and/or affected property, the AP should provide information in consideration of the factors listed in CSR Section 12:

(5) In specifying the primary land use, water use or sediment use under subsections (3), (4) and (4.1), a director must take into account current and reasonable potential future land, water and sediment uses based on the following factors:

- (a) current and proposed zoning for the site;
- (b) land use and planning policies of the government or the municipality or municipalities in which the site and neighboring sites are situated;
- (c) current site activities;
- (d) proposed site activities;
- (e) current and proposed uses for surface water and groundwater on the site;
- (f) current and proposed land use, and surface water and groundwater uses of neighbouring sites;
- (g) current nearby uses of other surface water and groundwater;
- (h) the potential for surface water and groundwater to cause pollution; (h.1) current and proposed uses for sediment at neighbouring sites;
- (h.2) potential for surface water, groundwater and sediment to cause pollution on neighbouring sites;
- (i) other factors that a director considers appropriate in the circumstances.

Detailed Administrative Screening Update

The Submission rate for Omnibus submissions continues to be below historic averages (10 per month) with twelve submissions received between Nov 1st, 2017 and March 31st, 2018 and a further sixteen received since April 1st (an average of less than 3 a month).

AP's are again reminded that some of you are not using the new Version 9.0 instrument templates which are available in the CSAP Submission Manager. Please ensure that the instrument version you are using includes "Version 9.0 R" in the footer of the instruments.

The new Annotated Summary of Site Condition has been posted to the CSAP website and Submitting AP's are encouraged to refer to this document when preparing submissions.

Screening issues that have come to light since our last newsletter include the lack of a metes and bounds survey for CoCs that list specific areas where different risk controls apply. It is not acceptable to reference these areas in figures in reports and these areas should be shown either directly in Schedule A site plan, or in an attached figure, and include a metes and bounds description in the CoC.

Spring 2018

Arm's Length AP Reviews

APs are reminded that when conducting an arm's length review (see the CSAP Rules at <https://csapsociety.bc.ca/wp-content/uploads/CSAP-Rules.pdf> for when an arm's length review is required), the AP(s) must remain arm's length during a Performance Assessment. When submitting Additional Information

Addendums in response to PA Stage 1 Review Comments, to remain arm's length, APs should prepare a covering letter indicating that they have reviewed the addendum, and agree with the information presented.

Railway Tracks as an APEC

The question as to whether on-Site Railway Tracks presented an APEC has recently come up during a PA. It is noted that AG13 addresses this issue and states the following:

- For the purposes of completing a site profile, active railway tracks would only be noted as a Schedule 2 activity where a "rail yard", maintenance facility or other freight handling also occurred. However, upon decommissioning, all railway tracks are considered a Schedule 2 activity (G3, G6 or G7, as appropriate) and must be included in a site profile.

Mandatory Use of the CSAP Transmittal Letter

As recently communicated via email, please be advised that use of the CSAP Transmittal Letter is now mandatory when making a submission. Given that most documents are submitted electronically, the use of the Transmittal

Letter will ensure that CSAP is able to accurately track submissions. An updated version is available on the CSAP website [here](#).

Submission Documents

ENV and CSAP confirm that submission packages for legal instruments are to include all supporting documentation (eg., site risk classification, notice of independent remediation, notice of off-site migration, etc.) regardless of whether the documents were previously submitted to ENV.

Approval in Principle

Please note the following clarifications for Protocol 6 submissions for Approvals in Principle:

- When applying for a numeric AiP, there needs to be a technical rationale and high

degree of certainty that contamination will meet standards within five years, otherwise a risk-based AiP is appropriate.

- A PVP is not required for risk controls for an AiP; risk controls should be documented in the Remediation Plan and referred to in the AiP.
- The responsible person for monitoring required during the period of the AiP should be defined in the Remediation Plan.