



**CSAP**

Society of Contaminated  
Sites Approved Professionals  
of British Columbia

# **CSAP 2020 WEBINAR**

## **LESSONS LEARNED AND MORE**





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## **PRESENTERS:**

- Anna Popova, CSAP
- Bob Symington, Gandalf Consulting Ltd.
- Eva Gerencher, SLR Consulting (Canada) Ltd.
- Tara Kennedy, SNC Lavalin Inc.
- Erin Robson, SLR Consulting (Canada) Ltd.



# Preliminary Screening

- Old Templates: Please check our website - Submission Package - for updates;
- Legal description: should match Land Title exactly;
- Standalone documents: everything listed in Transmittal Letter should come as separate pdfs;
- Civic address: if no civic address, use location description;
- Anything special about your case? Change of address, owners, subdivision, communication with ENV, etc.: Generously provide notes in Transmittal Letter and SoSC;
- Pass the word to your project managers: APs are responsible for professional development of those preparing submission packages.

# Detailed Screening

## Overview

CSAP was requested by Land Remediation to undertake a Detailed Administrative Screening (DAS) of CSAP submissions. The DAS started on January 1<sup>st</sup>, 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”.

We now have 5 years of experience conducting Screenings and on a regular basis update the membership on Lessons Learned and Screening Issues.

# Detailed Screening

## Statistics

From April 1<sup>st</sup>, 2019 to March 31<sup>st</sup>, 2020 CSAP received 108 Submissions at a rate of 9 per month.

- While not all Sites have been processed yet the interim numbers show;
- 78% were for Certificates of Compliance of which;
  - 37% consists of instruments issued to numeric standards and,
  - 41% consists of instrument issued to risk standards
- 18% were for Determinations, and
- 4% were for Approvals in Principle

3 Submissions were referred to the PAC

# Detailed Screening

## Screening Issue

The screening issues most identified have remained consistent;

### 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?
- 22b Are any soils vapour conditions consistent with clause 1 of Schedule B?
- 26 Do instrument substances correspond with CSR Schedules?
- 27c If yes, do the records reviewed indicate that the consultations were adequate?
- 28a Were communications efforts made by the responsible person adequate?

# Detailed Screening

## Items

### Summary of Site Condition Tab

- 4.1 Are details regarding site investigations that may not be consistent with MoE guidance (e.g., incomplete delineation) briefly noted?
- 4.2a Is sufficient information present in the SoSC to determine if applicable water use standards have been selected?
- 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?**
- 5.2a Do the conditions make sense and are they consistent with site use?
- 5.3a Is the list of substances a sub-set of the above Section 4.6 list?

# Detailed Screening

## Multiple Instruments

- 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.
- An overall plan could be prepared showing the Source Site and Affected Parcel Instruments



# Detailed Screening

## HC PCOC

### 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.
- 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 and, the decision to eliminate regulated substances will require a site, media and contaminant specific rationale to discount regulated substances.

# Detailed Screening

## UPDATE TRC - HC PCOC Review 2020

An RFP was issued by the TRC to review analytical data for HC sites and the following update provided.

- Reviewed 204 instruments that had been processed by CSAP between November 1, 2017 and March 31, 2020.
- CoC documents were screened and 42 sites containing 162 reports that were submitted to ENV in our file retrieval request.
- We are in the process of report screening, having completed 24 sites and with 18 remaining.

# Detailed Screening

## P21

BC ENV has provided **clarification for a comment on a P21 related Q&A** presented at the Fall PD Workshop. This clarification was issued in our newsletter..

**Q.** If your site lies within an area with 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?

- ENV agreed 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. 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.

# Detailed Screening

## Prior Instruments

A submission was received at CSAP which was for a Site where an existing Certificate of Compliance was previously issued but was not supplied as a standalone document.

As per Appendix 1 of **Procedure 12**, Screeners are required to review prior instruments for issues such as; Monitoring requirements met? Reporting requirements met? Record keeping requirements met?

- Submitting AP's are requested to supply prior instruments for the Site part of the Submissions Package.

# Detailed Screening

## Administrative Guidance 11 (AG11)

- A recent detailed screening identified the lack of an AG11 communication record from a source parcel owner to an affected parcel owner for a numerical Certificate of Compliance application for the off-site impacted property. [The detailed screener noted that Schedule B of the draft Certificate of Compliance contained a Clause 1 condition limiting the depth of future development (to slab on grade) and requested clarification regarding communication with the affected parcel owner concerning the Clause 1 condition.]
- Approved Professionals are reminded that the source parcel applicant must provide a record of communications for all applications for instruments where there was migration of contamination to a neighboring parcel.

# Detailed Screening

## Instrument Contact Info

ENV has suggested that email addresses be included in the cc's for instruments as ENV are trying to send everything out by email now.

cc: City of Victoria,  
1 Centennial Square, Victoria, BC V8W 1P6, (BY EMAIL) [example@shaw.ca](mailto:example@shaw.ca)

Jane Doe,  
XXXXXXXXXX Terrace, Victoria, BC V8R XXX, (BY EMAIL) [example@shaw.ca](mailto:example@shaw.ca)

Also please note for the future that all instruments are now cc'd as well to:

Society of Contaminated Sites Approved Professionals of BC (Anna Popova),  
613-744 West Hastings Street, Vancouver, BC V6C 1A5 (BY EMAIL)  
[apopova@csapsociety.bc.ca](mailto:apopova@csapsociety.bc.ca)<<mailto:apopova@csapsociety.bc.ca>>

Client Information Officer, BC Ministry of Environment and Climate Change Strategy, Land Remediation Section,  
PO Box 9342 Stn Prov Govt, Victoria, BC V8W 9M1 (BY EMAIL) [csp\\_cio@victoria1.gov.bc.ca](mailto:csp_cio@victoria1.gov.bc.ca)<[mailto:csp\\_cio@victoria1.gov.bc.ca](mailto:csp_cio@victoria1.gov.bc.ca)>

# Performance Assessments

## Consolidation of Site Investigation and Remediation Reports

**ISSUE:** Technical reports submitted with application for legal instrument(s) include only the most recent data with historical reporting provided in appendices

- Problem definition requires that information and data relied on for assessment of site conditions is listed, reviewed, summarized and interpreted from relevant previous investigation and remediation reports [ENV TG11 and CSAP Practice Guidelines for Stage 2 PSI & DSI]
- A comprehensive summary is required to consolidate the site data to provide context for the evolution of APECs/AECs, PCOCs/COCs, and delineation
- Requires a lot of extra work by the PA Panel reviewers

# Performance Assessments

## Part Site Applications

**ISSUE:** Protocol 6 Approval not obtained prior to submission for an application that does not include delineation and remediation of full 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.
- Part site applications for Certificate of Compliance require a pre-approval except for scenarios within AG15 that do not require pre-approval for off-site delineation and remediation (ie., Scenario 5. Wide Area Contamination and Scenario 4. Flow Through Contaminant Plumes).



# Performance Assessments

## Boundaries of a Site

*ISSUE:* Certificate of Compliance application for a large property where Schedule 2 activities occurred within a small footprint. Investigation and remediation limited to the area of Schedule 2 activities.

- 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, best to seek an instrument for the metes and bounds of the Schedule 2 use.
- A P6 Director's approval to obtain a CoC for a Schedule 2 part of a site is required

# Performance Assessments

## Common Investigation and Reporting Issues

Conceptual Site Model for the site and surrounding lands is often missing or not well documented

- Particularly for vapour it is important to consider current and reasonable and probable future use scenarios
- Seasonality for groundwater and vapour conditions often not addressed with sufficient technical depth



# Performance Assessments

## Water Use Determinations

- ENV reviews the SoSC and all submissions for legal instruments, including those that have been selected for PA and found sufficient.
- ENV notes that a number of submissions continue to have insufficient detail to support an exemption of drinking water use. The information needs to be of sufficient detail, including supporting data, to show compliance with P21 for every geological unit exempted from a specified water use.



# Summary of Site Conditions

- BC ENV updated the SoSC in Aug 2019 (V2.3)
- Changes reflect Omnibus changes
  - Changes in schedule names (e.g., Schedule 3.1, 3.2 etc)
  - Incorporates New Land Uses (RLHD and RLLD, WL)
  - Sediment Criteria replaced with Sediment Standards (Schedule 3.4)

# Summary of Site Conditions

- BC ENV updated the SoSC in Aug 2019 (V2.3)
- Changes reflect Omnibus changes
  - New section in Section 4.4 for vapour use
  - Changes to options for soil relocation without an CSRA
  - Other minor wording changes throughout doc



# Summary of Site Conditions

- Annotated SoSC has been updated to match ENV V2.3
- Annotations have been updated, and new annotations added for new sections



**Annotated**  
**Summary of Site Condition**  
**04 2020**

# Summary of Site Conditions

## Key changes to Annotated SoSC

- P21 checklist has been removed
- Section 4.4 (Applicable Standards)
  - For land use standards, other is no longer applicable to vapour
  - Section has been added for vapour

# Summary of Site Conditions

## Key changes to Annotated SoSC

### Vapour (CSR Schedule 3.3)

(Check all that apply)

	AL, RL, RL	CL	IL	Parkade	Other
Soil Vapour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If Other is specified above, please explain (e.g., vapour attenuation factors, assumptions):

If vapour attenuation factors have been used, please include a description of the assumptions regarding both **Current** and **Future** development of the Site that the selected vapour attenuation factors are based on, such as the following examples:

- Attenuation factors were applied using the assumptions that future building will be slab on grade and no groundwater contact with the slab will occur, or
- Attenuation factors were selected based on a future parkade built to any depth.



# CoC Schedule C

## New Requirements

- Previously, a Certificate of Compliance Schedule C only listed parameters that were remediated
- Parameters evaluated but not remediated were only listed on Determinations
- **NEW REQUIREMENT** – Substances evaluated against Protocol 2 Site-Specific Standards (SSS), or Protocol 4 or 9 local background concentrations (both regional values and site-specific) must be listed in Schedule C of the CoC

**NOTE:** If the substance is also remediated, then only the standards remediated to are to be listed in Sch C, the standards evaluated to do not need to be listed in this case (eg. where risk-based remediation standards were used).

# CoC Schedule C

## Example A – No Remediation

In this example you have a site where you have a background level/SSS of 15 µg/g for arsenic in soils and you are getting a CoC. Your site exceeds the arsenic numerical standard, but Protocol 4 or 9 permits the use of regional concentrations, so your site is not contaminated for arsenic. You do not undertake remediation as all the soils at the site meet the background/SSS level. Schedule C would list the following:

*Substances evaluated in soil for commercial land soil use:*

To meet local background concentrations:

arsenic      7440-38-2

*Or in the case that a SSS was used:*

To meet site-specific numerical standards:

parameter    CAS #

# CoC Schedule C

## Example B – Remediation Conducted

In this example, the site has a local or regional background level/SSS of 15 µg/g for arsenic in soils and you are getting a CoC. You have a small pocket where the arsenic was 20 µg/g, which you excavated, and the confirmatory samples were below 15 µg/g. In this case you have both evaluated and remediated to the regional background concentration and would enter the language as below in Schedule C indicating the site was remediated to a background level or SSS for arsenic in soils:

*Substances remediated in soil for commercial land soil use:*

To meet local background concentrations:

arsenic      7440-38-2

# CoC Schedule C

## Example C – Remediation To Risk-Based Standard

In this example, a SSS standard for benzene of 0.1 µg/g has been developed following Protocol 2. The SSS is used to demonstrate lateral and vertical delineation. However, the maximum concentration of benzene of 0.3 µg/g in the source zone exceeds the SSS. This localized zone is remediated using risk-based standards. In this case you have evaluated to the SSS but remediated to risk-based standards.

You would enter the language as below in Schedule C indicating the site was remediated to risk-based standards.

*Substances remediated in soil for commercial land soil use:*

To meet risk-based remediation standards:

benzene      71-43-2

# CoC Schedule C

## Additional Information

- For Example C: *No statement regarding the evaluation to SSS is required on Schedule C in this case.*
- Additional guidance on how to present this information in the SoSC is pending. In the interim, if a substance has been evaluated using a SSS or P4 Background value, the submitting AP can make a note in the comments section under SoSC Section 4.4 soil standards.

**Thank you**



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