

EXAMINATION GUIDE FOR EXAM CANDIDATES

ROSTER OF APPROVED PROFESSIONALS

REGULATORY EXAMINATION

Roster Qualifications and Functions

The Roster of Approved Professionals (the Roster) is a roster of individuals who have proven, through formal examination and documented experience, their expert knowledge in contaminated site assessment, management, and remediation.

Members of the Roster are authorized, under section 49.1 of the Contaminated Sites Regulation (CSR), to recommend to the BC Ministry of Environment and Climate Change Strategy (BC ENV) issuance of Approvals in Principle, Certificates of Compliance, Determinations that a site is or is not contaminated, and approval of background release exemptions (as per Table 1 and Table 2 of Protocol 6 - Eligibility of Applications for Review by Approved Professionals).

There are two categories of Approved Professionals: Standards Assessment Specialists, whose recommendations are based on application of the numerical standards of the CSR; and Risk Assessment Specialists, whose recommendations are based on application of the risk-based standards of the CSR.

The qualifying examination is offered in three parts: Technical – Standards Assessment, Technical – Risk Assessment, and Regulatory. To be appointed to the Roster, candidates must achieve a pass in both the regulatory part and the technical part associated with the category in which they seek appointment. Candidates must satisfy all minimum requirements in the year of appointment.

More information on the Roster is available at <u>www.csapsociety.bc.ca</u>. Please email <u>admin@csapsociety.bc.ca</u> for the Approved Professional Roster Pack.

The Regulatory Examination Format

The Regulatory examination is offered in a computer-based format and is held in a computer lab. The examination consists of approximately **70 multiple-choice questions** worth 1 point each. Candidates are given **4 hours** to complete the Regulatory examination. A basic, non-programmable calculator (Texas Instruments TI-30Xa Solar), a #2 mechanical pencil, an eraser, writing papers and a package of page markers (eg *Post-it Brand* flags) will be provided to, and retrieved from, candidates with their examination paper. Candidates will not be permitted to use their own calculator or writing instruments.

Candidates will be provided with a list of reference materials (*see Attachment 2*) to help prepare for the examination. Candidates are expected to prepare their own **printed** reference materials which can be brought into and used during the examination. Laptops or electronic materials are **NOT** permitted. The examination is not limited to testing knowledge of only those materials in the reference list, but can include any related materials considered relevant knowledge for an Approved Professional.

Objectives of the Regulatory Examination

The objectives of the Regulatory Examination include testing of the understanding and application of the statutes, regulations, guidance documents, protocols, policies and procedures governing the identification and remediation of contaminated sites. Successful candidates will also have a detailed understanding of how the identification, investigation and remediation of contaminated sites is regulated not only by the province but also by the federal government and will be able to understand and apply all conventions, provincial or federal, that pertain to contaminated sites practice in BC.

Examination Content and Guide to Preparation

This Guide to Examination Candidates is intended to give candidates guidance in their preparation for the exam. The information contained in this document and its attachments is to assist only and is subject to change. Areas and materials not specifically mentioned may also be examined.

Information useful in preparing for the exam is included in the following attachments:

- 1. Syllabus
- 2. List of Reference Materials

ATTACHMENT 1 – SYLLABUS

Candidates should read the Guide to Examination Candidates – Roster of Approved Professionals Examination – Regulatory before reading this syllabus. The percentage in brackets indicates the approximate percentage of the examination that will cover each major content area. Any statute, regulation, guidance document, protocol, policy, procedure or other applicable convention pertaining to contaminated sites practice in BC is examinable. However, particularly important areas of knowledge include:

I. Site Identification & Notification (20%)

- a. Notifications
 - i. Offsite Migration
 - ii. Consultation Process
- b. Independent Remediation
- c. Site Risk Classification
- d. Site Profile
- e. Site Registry

II. Site Investigation (30%)

- a. Identification of Potential Contamination
- b. Confirmation of Contamination
 - i. Applicable Standards
 - ii. Background
 - iii. Exemptions
 - iv. Statistical and Modelling
 - v. Definition of a Contaminated Site
- c. Delineation of Contamination
- d. Soil Management

III. Remediation (20%)

- a. Remediation Standards
- b. Regulatory Remediation Processes
- c. Remediation Plans
- d. Confirmation of Remediation
- e. Risk Assessment

IV. Regulatory Instruments (20%)

- a. Determination
- b. Approval in Principle
- c. Certificate of Compliance
- d. Ministry only instruments (e.g. ORDERS and VRAS)
- e. Authorizations or Approvals (other than AIP)

V. Review Process (10%)

- a. Administrative Forms
- b. Ministry Process
- c. CSAP Process
- d. Performance Assessment

Candidates should read the Guide to Examination Candidates–Roster of Approved Professionals Examination– Regulatory before reading this attachment. While many questions will be drawn from the following list of reference materials, questions may be drawn from any statute, regulation, guidance document, protocol, policy, procedure or other applicable convention pertaining to contaminated sites practice in BC.

1) LEGISLATION, REGULATIONS, GOVERNANCE, AND FEDERAL GUIDANCE

- a) Provincial https://www2.gov.bc.ca/gov/content/environment/air-land-water/siteremediation/legislation-and-protocols
- i) Environmental Management Act
- ii) Contaminated Sites Regulation
- iii) Hazardous Waste Regulation
- iv) Spill Reporting Regulation
- v) Organic Matter Recycling Regulation
- vi) Water Sustainability Act
- vii) Groundwater Protection Regulation
- viii) Islands Trust Act
- ix) *Land Title Act* (only section 85)
- x) *Local Government Act* (only sections 946.1 and 946.2)
- b) Federal
- i) *Fisheries Act* (only definitions and sections 34, 35 and 36) <u>http://laws-lois.justice.gc.ca/eng/acts/F-14/</u>
- ii) Transportation of Dangerous Goods Regulation (only part 2) https://<u>laws</u>-lois.justice.gc.ca/eng/regulations/SOR-2001-286/index.html
- c) CSAP <u>http://www.csapsociety.bc.ca;</u> https://csapsociety.bc.ca/members/guidance-documents/
- i) CSAP Bylaws (June 2021)
- ii) CSAP Rules (March 2022)
- iii) CSAP Submissions Procedures, Submissions 101
- iv) CSAP Submissions Fee Schedule
- v) CSAP Performance Assessment Guidelines
- vi) Administrative Screening Process Guidelines

Any Legislative Bills, Orders in Council or other regulatory updates that have gone into effect as of the end of August prior to the exam are considered in effect for the exam, even if the King's Printer or other published version of the Act or Regulation have not been updated on government websites.

2) PROCEDURES, PROTOCOLS, and POLICIES

- a) BC ENV. Procedure Documents up to and including Aug 24th 2023.
 b) https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/guidance-resources
 - i) Procedure 8: Definitions and Acronyms for Contaminated Sites. Eff. date April 1, 2021
- c) BC ENV. Protocol for Contaminated Sites Documents up to and including Aug 24th 2023.
 - i) <u>https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/legislation-and-protocols</u>Protocol 1: Detailed Risk Assessment
 - ii) Protocol 2: Site-Specific Numerical Soil Standards
 - iii) Protocol 3: Blending, Mixing, or Dilution as a Remediation Approach
 - iv) Protocol 4: Establishing Local Background Concentrations in Soil

- v) Protocol 6: Applications with Approved PrgULyk2fWWrZc7Dofessionals Recommendations and Pre-approvals
- vi) Protocol 8: Security for Contaminated Sites
- vii) Protocol 9: Determining Local Background Groundwater Quality
- viii) Protocol 10: Hardness Dependent Site-Specific Freshwater Water Quality Standard for Zinc
- ix) Protocol 11: Upper Cap Concentrations of Substances
- x) Protocol 12: Site Risk Classification System, Reclassification, and reporting
- xi) Protocol 13: Screening Level Risk Assessment
- xii) Protocol 14: Requirements for Determining Barite Sites
- xiii) Protocol 15: Soil Treatment Facility Design and Operation for Bioremediation of Hydrocarbon Contaminated Soil
- xiv) Protocol 16: Determining the Presence and Mobility of Nonaqueous Phase Liquids and Odorous Substances
- xv) Protocol 17: Remediation Forms
- xvi) Protocol 18: Criteria for Establishing Multiple Land Uses at Sites
- xvii) Protocol 19: Site Investigation and Reporting
- xviii) Protocol 20: Detailed Ecological Risk Assessment Requirements
- xix) Protocol 21: Water Use Determinations
- xx) Protocol 22: Application of Vapour Attenuation Factors to Characterize Vapour Contamination
- xxi) Protocol 27: Soil Leachate Tests for Use in Deriving Site-Specific Numerical Soil Standards
- xxii) Protocol 28: Standard Derivation Methods
- xxiii) Protocol 30: Classifying Substances as Carcinogenic

3) GUIDANCE

a) BC ENV. Technical Guidance on Contaminated Sites Documents - up to and including Aug 24th, 2023.

https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/guidance-resources

- i) TG1: Site Characterization and Confirmation Testing
- ii) TG2: Statistical Criteria for Characterizing a Volume of Contaminated Material
- iii) TG4: Vapour Investigation and Remediation
- v) TG5: Sampling and Determining Soil pH at Soil Relocation Receiving Sites
- vi) TG6: Assessment of Hydraulic Properties for Water Use Determinations
- vii) TG8: Groundwater Investigation and Characterization
- viii) TG9: Chlorophenol Aquatic Life Water Quality Standards
- ix) TG10: Guidance for a Stage 1 Preliminary Site Investigation
- x) TG11: Guidance for a Stage 2 Preliminary Site Investigation and Detailed Site Investigation
- xi) TG12: Statistics for Contaminated Sites [Including linked Documents]
- xii) TG13: Groundwater Protection Model (Version 2 Eff date Nov 1, 2017)
- xiii) TG14: Operations of Soil Treatment Facilities for the Bioremediation of Hydrocarbon Contaminated Soil
- xiv) TG15: Concentration Limits for the Protection of Aquatic Receiving Environments
- xvi) TG22: Use of Monitored Natural Attenuation for Groundwater Remediation DRAFT
- xvii) TG24: Site Specific Numerical Soil Standards Model Parameters

b) BC ENV. Site Remediation Web Pages, including all sub-pages and links - up to and including Aug 24th 2023. <u>https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation</u>

c) Ancillary Guidance

i) BC Approved Water Quality Guidelines (December 2017) <u>Approved Water</u> <u>Quality Guidelines - Province of British Columbia (gov.bc.ca)</u> $f) \ Forms \ https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/guidance-resources/forms$

- i) Site Disclosure Statement
- ii) Contaminated Sites Services Application
- iii) Summary of Site Condition Form
- iv) Site Information Request Application
- v) Notification of Independent Remediation
- vi) Notification of Likely or Actual Migration
- vii) Site Risk Classification Report
- viii) Detailed Ecological Risk Assessment Checklist
- ix) Soil Relocation Notification
- x) High Volume Site Registration

4) ANALYTICAL METHODS

B.C. Environmental Laboratory Manual - Province of British Columbia (gov.bc.ca)

5) ROSTER OF APPROVED PROFESSIONALS FORM PACK

Please contact admin@csapsociety.bc.ca for the Roster form pack

7) CCME (Canadian Council of Ministers of Environment). Environmental Quality Guidelines. Resources | CCME

Revised October 2023