BRITISH COLUMBIA

Environmental Management Act

CONTAMINATED SITES REGULATION

B.C. Reg. 375/96

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This consolidation includes any amendments deposited and in force as of the currency date at the bottom of each page. See the end of this regulation for any amendments deposited but not in force as of the currency date. Any amendments deposited after the currency date are listed in the B.C. Regulations Bulletins. All amendments to this regulation are listed in the *Index of B.C. Regulations*. Regulations Bulletins and the Index are available online at www.bclaws.ca.

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Environmental Management Act

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PART 1 – INTERPRETATION

Definitions

1 In this regulation:

"Act" means the *Environmental Management Act*;

"agricultural land use" means the use of land for the primary purpose of producing agricultural products for human or animal consumption including, without limitation, livestock raising operations, croplands, orchards, pastures, greenhouses, plant nurseries and farms;

"aquatic life water use" means the use of water as habitat for any component of the freshwater or marine aquatic ecosystem, including phytoplankton, zooplankton, benthos, macrophytes and fish;

"background concentration" means the concentration of a substance in an environmental medium in a geographic area, but does not include any contribution from local human-made point sources, determined by following director's protocols;

"cancer risk" means the probability of the occurrence of cancer from exposure to a carcinogenic substance;

"carcinogenic substance" means any chemical classified as carcinogenic in accordance with a director's protocol;

"commercial land use" means the use of land for the primary purpose of buying, selling or trading of merchandise or services including, without limitation, shopping malls, office complexes, restaurants, hotels, motels, grocery stores, automobile service stations, petroleum distribution operations, dry cleaning operations, municipal yards, warehouses, law courts, museums, churches, golf courses, government offices, air and sea terminals, bus and railway stations, and storage associated with these uses;

"confirmation of remediation report" means a report under section 49 (2) (b);

"decommission a site" means the removal, destruction or treatment of soil, process equipment or buildings, including the removal of storage tanks, in a manner designed to stop or reduce a significant portion of the operations at a site or to significantly change the use of the site;

"director's interim standards" means the substances and risk based or numerical criteria, standards and conditions prescribed by the director under section 63.1 of the Act;

"director's protocol" means a protocol established by a director under section 64 of the Act;

"drinking water use" means the use of water for the purpose of consumption by humans;

"environmental management area" means a site designated by the director under section 14;

"environmental media" means soil, sediments, surface water, groundwater, air, vapour, animals and plants;

"environmental risk assessment report" means a report under section 18 (6) or 18.1 (5);

"external contract reviewer" means a person with whom a director has entered into a contract under section 10 (1);

"generic numerical sediment standard" means the concentration of a substance specified in Schedule 3.4 for a particular sediment use;

"generic numerical soil standard" means the concentration of a substance in soil specified for a particular land use in Part 2 or 3 of Schedule 3.1;

"generic numerical vapour standard" means the concentration in vapour of a substance specified for a particular land use, or other use, in Schedule 3.3;

"generic numerical water standard" means the concentration of a substance in water specified for a particular water use in Schedule 3.2;

"guidelines" includes criteria and objectives;

"hazard index" means the sum of hazard quotients for any substance over all exposure pathways;

"hazard quotient" or **"HQ"** means the quotient determined from the equation

$$HQ = \frac{EDI}{RfD}$$

where

"EDI" is the estimated daily intake (in milligrams per kilogram of body weight per day) for any substance having non-carcinogenic deleterious effects, and

"RfD" is the reference dose which is an estimate of the maximum daily exposure level (in milligrams per kilogram of body weight per day) to a substance that is unlikely to produce an appreciable risk of non-carcinogenic deleterious effects during a lifetime of exposure to that substance;

"high density residential land use" means a residential land use in respect of one of the following:

(a) a multiple-unit dwelling of 3 or more storeys;

(b) an institutional facility in a building of 3 or more storeys;

"industrial land use" means the use of land for the primary purpose of conducting industrial manufacturing and assembling processes and their ancillary uses including, without limitation, factories, metal foundries, wood treatment

facilities, mines, refineries, hydroelectric dams, metal smelters, automotive assembly plants, rail car or locomotive maintenance facilities, railyards, non-retail breweries and bakeries, roads and highways, wastewater and sewage treatment plants, electrical transformer stations and salvage yards;

"irrigation water use" means the use of water for the purpose of producing hay, forage crops, pasture, cereal crops, vegetables and fruit;

"livestock water use" means the use of water for the purpose of consumption by livestock;

"low density residential land use" means a residential land use in respect of one of the following:

(a) a single residence;

(b) a multiple-unit dwelling of less than 3 storeys;

(c) an institutional facility in a building of less than 3 storeys;

"matrix numerical soil standard" means the concentration of a substance in soil specified for a particular land use and a particular site-specific factor in Part 1 of Schedule 3.1;

"medical health officer", in relation to a contaminated site, means a medical health officer within the meaning of the *Public Health Act* who has jurisdiction within the geographic area in which the contaminated site is located;

"natural wildlands land use" means a wildlands land use in respect of a protected area, except in respect of a portion of the protected area where there is, or previously has been, an agricultural, commercial, industrial, urban park or residential land use;

"numerical standards" means generic numerical soil standards, generic numerical vapour standards, generic numerical water standards, matrix numerical soil standards, generic numerical sediment standards, director's interim standards and site-specific numerical standards;

"ownership interest", when used in Part 2, means

(a) a fee simple interest,

(b) a lease or similar form of tenure respecting real property having a term, including any option to renew, equal to or exceeding 30 years, or

(c) a licence of occupation under section 39 of the *Land Act* having a term, including any option to renew, equal to or exceeding 30 years,

but does not include an interest in the nature of

(d) a mortgage,

(e) a right of way,

(f) a tenure under the *Forest Act*,

(g) a lien,

(h) a judgment,

(i) an interest in real property which deals exclusively with subsurface rights including a tenure under the *Geothermal Resources Act*, the *Mineral Tenure Act* or the *Petroleum and Natural Gas Act*,

(j) an option to purchase,

(k) an equitable charge,

(l) a restrictive covenant,

(m) a covenant under section 219 of the *Land Title Act*, or

(n) a right to purchase an ownership interest;

"parkade" means an enclosed building, storey of a building or other construction used for the parking of multiple motor vehicles, but does not include the parking of motor vehicles associated with a single residence;

"protected area" means an area of land set out in Column 1 of Schedule 2.1 that is established, named, designated or otherwise prescribed under the Act listed opposite in Column 2;

"provincial health officer" means the provincial health officer appointed under the *Public Health Act*;

"remediation plan" means a written document which may include, but is not necessarily limited to, plans and other information respecting

(a) overall site location and delineated horizontal and vertical locations of contamination presented in maps, cross-sections and other graphic representations,

(b) remediation alternatives which were considered for managing contamination from or at a site, and evaluation methods used to assess the factors under section 56 of the Act,

(c) remediation methods selected to ensure compliance with the numerical standards, or the risk based standards prescribed in this regulation, and the conditions imposed by a director under section 53 of the Act or in a remediation order,

(d) identification and classification in accordance with the numerical standards of the substances in any soil, surface water, groundwater, sediment or vapour to remain in place,

(d.1) identification and classification in accordance with the numerical standards of the substances in any soil or sediment to be relocated,

(e) risk assessment calculations and methodology to demonstrate compliance with risk-based remediation standards if remediation is assessed relative to the risk-based remediation standards,

(f) a schedule with estimated dates for implementing remediation,

(g) identification and discussion of the effects of known regulatory requirements on remediation, including any authorizations which will be required to implement remediation,

(h) proposed confirmatory sampling, analysis, testing or monitoring during and after treatment, management or removal of contamination,

(i) proposed measures and controls to ensure security, including covenants under section 219 of the *Land Title Act*, restrictive covenants and financial security in accordance with section 48 of this regulation, for ongoing management of any contamination if it will be managed at the site, and

(j) any public consultation or review of remediation which has occurred or which is proposed during remediation;

"residential land use" means the use of land for the primary purpose of

(a) a residence by persons on a permanent, temporary or seasonal basis, including, without limitation, single family dwellings, cabins, apartments, condominiums or townhouses, or

(b) institutional facilities, including, without limitation, schools, hospitals, daycare operations, prisons, correctional centres and community centres;

"reverted wildlands land use" means a wildlands land use other than a natural wildlands land use;

"right of way" includes

(a) an easement,

(b) a statutory right of way, and

(c) a limited interest in the land or a licence or a permit that grants the right to construct, operate or maintain works of a lineal nature on, over or under land;

"risk assessment" means the systematic process of identifying and evaluating substances, persons potentially affected, and exposures to the substances in order to estimate cancer risks or hazard indices in accordance with a director's protocol;

"risk management" means actions, including monitoring, designed to prevent or mitigate risks to human health or the environment caused by contamination at a site;

"screening level risk assessment" means a screening level risk assessment and report described in a director's protocol;

"sediment" means particulate material that usually lies below water;

"sensitive sediment use" means the use as habitat for sensitive components of freshwater, marine or estuarine aquatic ecosystems of a site containing sediment, which sensitive components include, but are not limited to,

(a) phytoplankton, zooplankton, benthos, macrophytes and fish,

(b) habitats used by endangered or threatened species or species of special concern under the *Species at Risk Act* (Canada),

(c) watercourses, wetlands, forested riparian areas, mudflats and intertidal zones that are important to the preservation of fish or wildlife,

(d) reaches of aquatic habitats that are important to fish spawning or serve as important rearing habitat for fish,

(e) reaches of aquatic environments that encompass or border habitat compensation or restoration sites or other areas that are intended or designed to create, restore or enhance biological or habitat features, and

(f) areas and aquatic habitat included in wild life management areas designated under the *Wildlife Act*;

"site profile form" means the form prescribed in Schedule 1;

"site-specific numerical standard" means the concentration of a substance in soil, water, sediment or vapour

(a) determined for a particular land, water, sediment or vapour use at a specific site by applying the applicable director's protocol, and

(b) approved by the director;

"soil" includes

(a) unconsolidated mineral or organic material,

(b) rock,

(c) fill, and

(d) sediment deposited on land,

but does not include the following, which are applied to land for a beneficial purpose in compliance with the Organic Matter Recycling Regulation or an authorization given under the Act:

(e) sewage sludge;

(f) composted organic materials;

(g) products derived from the materials described in paragraph (e) or (f);

"summary of site condition form" means the form set out as Schedule 1.1;

"typical sediment use" means the use of a site containing sediment for a use that is not a sensitive sediment use;

"urban park land use" means the use of urban land for the primary purpose of outdoor recreation including, without limitation, municipal parks, fairgrounds, sports fields, rifle ranges, captive wildlife parks, biking and hiking areas, community beaches and picnic areas;

"vapour" means gaseous emissions from soil, sediment or water;

"wide area remediation plan" means a remediation plan for an environmental management area for one or more specific substances which have originated from one or more sources specified in the plan;

"wildlands land use" means the use of land for a primary purpose other than an agricultural, commercial, industrial, urban park or residential land use.

[am. B.C. Regs. 244/99, s. 1; 17/2002, s. 1; 109/2002, s. 7 (a); 419/2003, s. 1; 322/2004 and 324/2004, s. 1; 201/2007, s. 1; 343/2008, s. 1; 253/2016, s. 1; 116/2018, Sch. 2, s. 1; 13/2019, s. 1.]

PART 2 – SITE PROFILES

Scope of "industrial or commercial" purpose or activity

2 (1) A person is exempt from the duty to provide a site profile under section 40 (1), (2), (3), (6) and (7) of the Act with respect to industrial or commercial purposes and industrial or commercial activities which are not described in Schedule 2.

(2) Despite subsection (1), a municipality or approving officer may request a person who makes any type of application described in section 40 (1) of the Act to complete sections I to III and XI of the site profile form and provide it to the municipality or approving officer.

[am. B.C. Regs. 244/99, s. 2; 17/2002, s. 2; 322/2004 and 324/2004, s. 2.]

When site profiles must be provided

3 (1) Subject to section 4, a person described in section 40 (1) of the Act must provide a site profile at the time of presenting, in writing, an application or request for approval described in that section of the Act.

(2) Subject to section 4, a municipality undertaking to zone or rezone land in which it has an ownership interest described in section 40 (1) (b) (i) of the Act must provide a site profile to a director not later than 15 days after giving first reading to the applicable bylaw.

(3) Subject to section 4, an owner of real property described in section 40 (2) (b) of the Act must provide a site profile not less than 10 days before the time the owner dismantles a building or structure, or otherwise decommissions a site which was used for an industrial or commercial purpose or activity listed in Schedule 2.

(4) Subject to section 4, a permit holder under the *Oil and Gas Activities Act* who is described in section 40 (3) of this Act must provide a site profile at the time the permit holder presents, in writing, an application for a certificate of restoration respecting a well or facility under the *Oil and Gas Activities Act*.

(5) and (6) Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 3 (c).]

(7) Subject to section 4, a vendor of real property described in section 40 (6) of the Act must provide a site profile to a prospective purchaser at least 30 days before the actual transfer of the real property, but if the time between the written agreement for the transfer and the actual transfer is less than 30 days, the vendor must provide the site profile before the date of the agreement for the transfer.

(8) A person described in section 40 (7) of the Act must provide a site profile to a director no later than 10 days after the person takes possession or control of the real property.

[am. B.C. Regs. 244/99, s. 3; 322/2004 and 324/2004, s. 3; 286/2010, s. (a).]

Exemptions respecting the providing of site profiles

4 (1) Subject to subsection (3), a person is exempt from the duty to provide a site profile under section 40 of the Act if any of the following apply:

(a) a site profile has been filed on the site registry and the information in sections II to X of the site profile form accurately reflects the person's current knowledge about the site;

(b) the site is the subject of an approval in principle or certificate of compliance relevant to the current use of the site and any use proposed by the person, but only if the person has no reason to believe that there has been any additional or new contamination at the site after issuance of the approval in principle or certificate of compliance;

(c) Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 4 (d).]

(d) the site is the subject of a certificate of restoration issued under the *Oil and Gas Activities Act* or the *Petroleum and Natural Gas Act*, but only if the person has no reason to believe that there is contamination at the site that is not otherwise addressed in the certificate of restoration;

(e) the site is located within an environmental management area for which

(i) a director has approved a wide area remediation plan or the scope of a proposed wide area remediation plan, and

(ii) the site profile would only be provided due to uses or activities that caused contamination which is dealt with in the approved wide area remediation plan or the approved scope of a proposed wide area remediation plan;

(f) the site is the subject of a determination under section 44 of the Act, but only if the person has no reason to believe that, since the determination,

(i) in the case of a site determined not to be contaminated, there has been any contamination at the site, and

(ii) in the case of a site determined to be contaminated, there has been any new or additional contamination at the site.

(2) Subject to subsection (3), for a site remediated before April 1, 1997, a person is exempt from the duty to provide a site profile under section 40 of the Act if

(a) the site was the subject of correspondence from an official at the Ministry of Water, Land and Air Protection or any predecessor ministry indicating that remediation of the site was carried out in a manner that substantially satisfies the remediation standards of this regulation respecting the current use and any use proposed by the person,

(b) there has not been a change in the primary land use or water use at the site after the remediation described in paragraph (a), and

(c) the person has no reason to believe that there could have been any new contamination of the site after the date of the correspondence referred to in paragraph (a).

(3) Subsections (1) and (2) do not apply to a person to whom section 40 (7) or (8) of the Act applies.

(4) A person is exempt from the duty to provide a site profile to a municipality or approving officer under section 40 (1) of the Act with respect to any site within a municipality if the municipality or approving officer has filed written notice with the minister that the municipality or approving officer does not wish to receive site profiles under section 40 (1) of the Act.

(5) An applicant for a subdivision under section 114 of the *Land Title Act* is exempt from the duty to provide a site profile under section 40 (1) (a) of the Act.

(6) A municipality undertaking to zone or rezone land is exempt from the duty to provide a site profile under section 40 (1) (b) (i) of the Act if

(a) the municipality does not have an ownership interest in the land, or

(b) the municipality

(i) does not intend to develop the parcel or parcels of land that it owns within the area being zoned or rezoned, and

(ii) at the time it is undertaking to zone or rezone the land it commits in writing to a director to submit a site profile when development of the land begins, unless it is exempted when development of the land begins from the requirement to submit a site profile under other provisions of the Act and this regulation.

(7) An applicant for a development permit or a development variance permit is exempt from the duty to provide a site profile under section 40 (1) (b) (ii) of the Act if the activity which the permit allows does not involve any disturbance or excavation of soil.

(8) If a person is required to provide a site profile under both section 40 (1) (b) (iv) and 40 (2) (b) of the Act, the person is exempt from the requirement to provide a site profile under section 40 (2) (b) of the Act.

(9) A person is exempt from the duty to provide a site profile under section 40 (1) (b) (iv) and (2) (b) of the Act if

(a) the demolition or dismantling is of a temporary camp or a temporary facility if the camp or facility is associated with the construction of rights of way for exploration for or development of any of the following resources:

(i) petroleum;

(ii) natural gas;

(iii) mineral;

(iv) geothermal energy,

(b) the buildings or structures to be demolished or dismantled are not associated with decommissioning a site, or

(c) the demolition does not involve any disturbance or excavation of soil other than that which is incidental to the demolition.

(10) Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 4 (d).]

(11) A vendor of real property is exempt from the duty to provide a site profile under section 40 (6) of the Act in respect of real property which is not an ownership interest as defined in section 1.

(12) A vendor of real property is exempt from the duty to provide a site profile to a director under section 40 (6) of the Act.

(13) A vendor of real property is exempt from the duty to provide a site profile to a prospective purchaser under section 40 (6) of the Act if

(a) the prospective purchaser waives, in writing, the right to be provided with a site profile,

(b) at the time of contract for purchase and sale, the subject property of the sale is used primarily for residential purposes, or

(c) at the time of the contract for purchase and sale, the subject property has never been zoned for any use other than primarily for residential purposes.

[am. B.C. Regs. 244/99, s. 4; 17/2002, s. 3; 109/2002, s. 1; 322/2004 and 324/2004, s. 4; 343/2008, s. 2; 286/2010, s. (b); 13/2019, s. 2.]

Duty to provide a satisfactorily completed site profile

5 The obligation of a person to provide a site profile under section 40 (1), (2), (6), (7) and (8) of the Act and under this regulation is not satisfied until the person provides all the site profile information required by the site profile form.

[am. B.C. Regs. 322/2004 and 324/2004, s. 5.]

Assessing and forwarding site profiles

6 (1) For the purposes of section 40 (4) of the Act, a municipality that, or approving officer who, receives a site profile must, within 15 days after receiving it,

(a) assess whether the site profile in Schedule 1 is satisfactorily completed in accordance with the instructions provided by the director,

(b) notify the person who provided the site profile if the site profile is not satisfactorily completed,

(c) forward a satisfactorily completed site profile to

(i) a director if any question is answered in sections IV to IX of the site profile with a "yes" response, or

(ii) the registrar if subparagraph (i) does not apply, and

(d) notify the person from whom the site profile was received whether or not it has been forwarded to a director under paragraph (c) (i).

(2) For the purposes of section 40 (4) of the Act, on receipt of a site profile the commission must, within 15 days after receiving it,

(a) assess if the site profile is satisfactorily completed,

(b) notify the person who provided the site profile if the site profile is not satisfactorily completed, and

(c) forward a copy of the satisfactorily completed site profile to the registrar.

(3) A municipality, an approving officer and the commission do not have a duty arising under the Act or this regulation

(a) to store, file or otherwise manage a site profile provided to the municipality, approving officer or commission after discharging the duties set out in subsections (1) and (2), or

(b) to disclose to any person

(i) whether the municipality, approving officer or commission possesses a particular site profile, or

(ii) the contents of a particular site profile,

unless the disclosure is requested by the person who provided the site profile.

(4) A municipality or approving officer, on receipt of an application specified in section 40 (1) of the Act without a site profile, may submit information to a director indicating that the municipality or approving officer believes the subject lands of the application have been used for a use specified in Schedule 2.

(5) Subsection (4) applies only if the municipality or approving officer

(a) provides an opportunity for the applicant to review and comment on the information which the municipality or approving officer intends to submit to the director, and

(b) submits the information and the applicant's review and commentary to the director.

(6) A municipality that, or approving officer who, receives a site profile that does not need to be forwarded to a director under subsection (1) of this section and section 40 (4) of the Act may, despite those provisions, submit the site profile to the director if

(a) any response in the site profile conflicts with or is inconsistent with the knowledge or information possessed by the municipality or approving officer,

(b) the person who provided the site profile has been provided an opportunity to review and comment to the municipality or approving officer on knowledge or information referred to in paragraph (a), and

(c) the knowledge or information referred to in paragraph (a) and the commentary referred to in paragraph (b) is sent to the director at the time of submitting the site profile.

(7) For the purposes of exercising the power under this section, a municipality, an approving officer and the commission do not have a duty to conduct a search of

the records or archives maintained by the municipality, approving officer or commission.

(8) A municipality that, or approving officer who, submits to a director the information under subsection (4) or a site profile under subsection (6) is deemed to not forward the site profile under section 40 (4) (b) of the Act, but is deemed to carry out a power, duty or function under Part 4 of the Act.

[am. B.C. Regs. 244/99, s. 5; 322/2004 and 324/2004, s. 6; 239/2007, s. 1.]

Duties of a director and the commission after receiving a site profile

7 (1) Subject to subsection (2), a director must, within 15 days after receiving a site profile, notify

(a) the municipality that, or approving officer who, forwarded the site profile, and

(b) the person who provided the site profile

whether or not the director intends to require or order a preliminary site investigation or a detailed site investigation under section 41 of the Act.

(2) The director may extend the time for notification under subsection (1) to a maximum of 30 days if the extension is necessary to obtain information to determine whether or not a preliminary site investigation or a detailed site investigation will be required or ordered, and in doing so the director must inform the persons described in subsection (1) of

(a) the duration of the extension, and

(b) the nature of the information required.

(3) Subject to subsection (4), the commission, within 15 days after receiving a site profile under section 40 (3) of the Act, must notify the person who provided the site profile whether the commission intends to require or order a preliminary site investigation under section 41 of the Act.

(4) The commission may extend the time for notification under subsection (3) to a maximum of 30 days if the extension is necessary to obtain information to determine whether or not a preliminary site investigation will be required or ordered, and in doing so the commission must inform the persons described in subsection (3) of

(a) the duration of the extension, and

(b) the nature of the information required.

[am. B.C. Regs. 322/2004 and 324/2004, s. 7.]

PART 2.1 – SUMMARIES OF SITE CONDITION

Duty to provide director with summary of site condition

7.1 (1) A person applying for, requesting or seeking approval, consideration, review or a determination of any of the following in relation to a site must provide a

summary of site condition, together with a recommendation by an approved professional in respect of the matter, to the director:

(a) a determination under section 44 of the Act *[determination of contaminated sites]*;

(b) a determination under section 50 of the Act *[minor contributors]*;

(c) a voluntary remediation agreement under section 51 of the Act;

(d) an approval in principle under section 53 (1.1) of the Act;

(e) a certificate of compliance under section 53 (3) of the Act;

(f) a contaminated soil relocation agreement under section 55 of the Act;

(g) if the site is one to which Part 5 of the Act applies, a transfer agreement referred to in section 67 (1) (a) *[advanced exploration sites]* or 68 (1) (a) *[producing or past producing mine sites]* of that Part;

(h) if the site is one to which Part 5 of the Act applies, indemnification for the site under the *Financial Administration Act*;

(i) a covenant to be registered under section 48 (1) of this regulation;

(j) a preliminary site investigation report;

(k) a human health risk assessment or environmental risk assessment report;

(l) a detailed site investigation report;

(m) a remediation plan;

(n) a confirmation of remediation report;

(o) a report respecting local background concentrations of substances.

(2) A summary of site condition must set out the information necessary to complete the summary of site condition form.

[en. B.C. Reg. 239/2007, s. 2; am. B.C. Reg. 343/2008, s. 3.]

PART 3 – SITE REGISTRY

Site registry

8 (1) For the purposes of section 43 (2) (f) of the Act, a director must provide the registrar with information respecting each of the following that the director enters into, makes, receives, issues or has knowledge of, as applicable:

(a) a contaminated soil relocation agreement entered into under section 55 of the Act;

(b) a decision under section 41 of the Act respecting whether a preliminary site investigation and detailed site investigation will be ordered;

(c) a remediation plan prepared and submitted under sections 48, 51 and 53 of the Act;

(d) an approval in principle and a certificate of compliance issued under section 53 of the Act;

(e) a covenant required to be registered under section 53 (3) (e) of the Act;

(f) a determination that a site is an orphan site or a high risk orphan site made under section 58 (1) of the Act;

(g) a designation under section 14 of this regulation of an environmental management area;

(h) an approval of the scope of a proposed wide area remediation plan;

(i) an opinion from an allocation panel under section 49 (2) of the Act;

(j) information related to the monitoring, verification or confirmation of compliance with a remediation plan;

(k) information about decisions being appealed;

(l) an agreement pertaining to responsibility for remediation of a contaminated site but only if all parties to the agreement jointly request that a notation about the agreement be entered on the site registry;

(m) a notification of substance migration or likely migration, described in section 57 (1.1) or 60.1 (2) of this regulation;

(n) a summary of site condition;

(o) information respecting the classification of a site, including its reclassification or de-classification, as the case may be.

(2) Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 8.]

(3) Repealed. [B.C. Reg. 419/2003, s. 2.]

(4) The registrar may enter into the site registry historical information on discharges to land and such other historical information that the director may require.

[am. B.C. Regs. 419/2003, s. 2; 322/2004 and 324/2004, s. 8; 201/2007, s. 2; 11/2019, s. 3.]

PART 4 – FEES

Fees

9 (1) Subject to this section, a person who undertakes an action described in Column 1 of Table 1 of Schedule 3 must pay the fee set out opposite the action in Column 2.

(2) Subject to this section, a person who

(a) undertakes an activity requiring an action or activity,

(b) is ordered or required by a director to undertake an activity requiring an action or activity, or

(c) requests an action or activity

described in Column 1 of Table 2 of Schedule 3 must pay the fees set out opposite the action or activity in Column 2.

(3) Repealed. [B.C. Reg. 201/2007, s. 3 (b).]

(4) The federal goods and services tax, if payable, must be added to the fees payable.

(5) Fees payable under this regulation are payable to the government except that

(a) fees established for computer-based site registry inquiries are payable to the electronic data distributor, and

(b) fees imposed by an approving officer or a municipality for assessing a site profile are payable to the approving officer or municipality.

(6) Fees imposed by an approving officer or municipality under section 40 (5) of the Act may not exceed the amount of the fees established under this regulation for providing a site profile to an approving officer or a municipality.

(7) A fee referred to in subsection (6) is payable at the time the person provides the site profile to the approving officer or municipality.

(8) The fees listed in Schedule 3 are exclusive of one another and of fees associated with any other action or activity under this regulation.

(9) Subject to subsection 19, a person who pays a fee set out in Column 2 of Table 2 of Schedule 3 must be provided with a credit toward any fee payable under subsection (15) (a) of this section in respect of the item for which the fee is paid, equal to 1 hour for each $200 of the fee set out opposite the item.

(10) If a director considers that an application or a report submitted in relation to an action or activity listed in Column 1 of Table 2 of Schedule 3 is incomplete or contains errors, the director must return the application or report to the person for completion or correction and the person may resubmit a completed or corrected report or plan for another review.

(11) The fee for a subsequent review of an application or report under subsection (10) is 50% of the fee paid.

(12) The fee for a review requested under section 10 (2) is equal to the sum of

(a) the amount of the fee payable by the government to the external contract reviewer under a contract referred to in section 10 (1), and

(b) 50% of the fee set out in Column 2 of Table 2 of Schedule 3, as applicable, opposite the type of review set out under item 2 (a) to (e) and (g) in Column 1.

(13) If an external contract reviewer considers, and advises the ministry, that a report or plan the reviewer has been asked to review is incomplete or contains an error, the person who requested the assignment of the reviewer may resubmit a completed or corrected report or plan for another review by the external contract reviewer.

(14) The fee for a subsequent review under subsection (13) is equal to the sum of

(a) the amount of the fee payable by the government to the external contract reviewer for the subsequent review, and

(b) if a director considers it justified on the basis of additional time it takes a person to review the completed or corrected plan or report on behalf of the

ministry, 50% of the fee paid under subsection (12) (b) on the first submission.

(15) In addition to any other fees under this section, a person who requests an action or activity under

(a) Table 2 of Schedule 3 must pay a fee of $165 per hour that a person is engaged in performing the action or activity on behalf of the ministry,

(b) Table 3 of Schedule 3 must pay a fee of $165 per hour that a person is engaged in performing the action or activity on behalf of the ministry after the first hour, and

(c) Table 3 of Schedule 3 must pay a fee equal to the amount of the reasonable traveling and out of pocket expenses necessarily incurred by a person in performing the action or activity on behalf of the ministry.

(16) If a director is satisfied, on application, that a risk assessment reviewed under item 2 (d) or (g) of Table 2 of Schedule 3 is a screening risk level assessment, the director may,

(a) in the case of a risk assessment under item 2 (d), reduce the fee by up to 20%, and

(b) in the case of a risk assessment under item 2 (g), reduce the fee by up to 50%.

(17) A person or organization is exempt from all or part of a fee under item 2 or 3 of Table 1 of Schedule 3, in the amount specified by a director, if

(a) the person or organization satisfies the director that paying the fee or the part would be an unmanageable financial burden on the person or organization required to pay it, or

(b) in the case of a government ministry or a person acting on behalf of a government ministry, the fee does not exceed $500 and the director is satisfied that granting the exemption is in the public interest.

(18) A director may

(a) invoice a person for a fee,

(b) agree in writing in a particular case to accept the payment of fees in installments, and

(c) require in a particular case that a person provide fees in advance of any services being provided.

(19) If a person withdraws a request referred to in subsection (2) (c), the person is not required to pay the fee referred to in that subsection for that action or activity, however the hourly fees described in subsection (15) (a) and (b) and the travelling and other expenses described in subsection (15) (c) continue to apply and are payable in respect of action or activity done before the person withdraws the request.

(20) In addition to any other fees under this section, a person who requests an amendment to any of the following must pay a fee of $165 per hour that a person is engaged in performing an action or activity on behalf of the ministry in relation to the amendment:

(a) a determination under section 44 *[determination of contaminated sites]* of the Act;

(b) a determination under section 50 of the Act *[minor contributors]*;

(c) a voluntary remediation agreement under section 51 of the Act;

(d) an approval in principle under section 53 (1.1) of the Act;

(e) a certificate of compliance under section 53 (3) of the Act;

(f) a contaminated soil relocation agreement under section 55 of the Act;

(g) if the site is one to which Part 5 of the Act applies, a transfer agreement referred to in section 67 (1) (a) *[advanced exploration sites]* or 68 (1) (a) *[producing or past producing mine sites]* of that Part;

(h) if the site is one to which Part 5 of the Act applies, indemnification for the site under the *Financial Administration Act*.

[en. B.C. Reg. 419/2003, s. 3; am. B.C. Regs. 322/2004 and 324/2004, s. 9; 464/2004, s. 1 (a); 201/2007, s. 3; 343/2008, s. 4; 253/2016, s. 2.]

Review of report or plan by external contract reviewer

10 (1) A director may enter into a contract with an approved professional to assist in the review of reports or plans, listed under items 2 (a) to (e) and (g) of Column 1 of Table 2 of Schedule 3, by making a report to the director containing the external contract reviewer's professional opinion in respect of

(a) the adequacy of the report or plan,

(b) the need for remediation of the site in respect of which the report or plan is submitted, and

(c) whether the report or plan complies with Provincial laws and ministry policy.

(2) A person may request a director to assign an external contract reviewer to assist with a review listed under item 2 (a) to (e) or (g) in Column 1 of Table 2 of Schedule 3.

[en. B.C. Reg. 419/2003, s. 3; am. B.C. Regs. 322/2004 and 324/2004, s. 10; 253/2016, s. 3.]

PART 5 – CONTAMINATED SITE DEFINITION AND DETERMINATION

Definition of contaminated site

11 (1) Subject to section 12 and subsections (2), (3) and (4) of this section, the following substances, standards and conditions are prescribed for the purposes of the definition of "contaminated site" in section 39 of the Act:

(a) the land use of the site is a land use specified in section 12 (3) (a) to (f) and the concentration of any substance in the soil is greater than

(i) the applicable generic numerical soil standard, or

(ii) the lowest value of the applicable matrix numerical soil standards;

(a.1) Repealed. [B.C. Reg. 253/2016, s. 4 (b).]

(b) the surface or groundwater located on or flowing from the site is used or has a reasonable probability of being used for aquatic life, irrigation, livestock or drinking water and the concentration of any substance in the surface water or groundwater is greater than the applicable generic numerical water standard;

(c) the concentration of any substance in sediment at the site is greater than the applicable generic numerical sediment standard;

(c.1) the concentration of any substance in vapour at the site is greater than the applicable generic numerical vapour standard;

(c.2) despite paragraph (a), for land less than 15 metres from a natural gas or petroleum well head and the land use of the site is agricultural land use,

(i) the concentration of any substance in the soil at a depth of less than 2 metres is greater than the applicable agricultural land use standards for soil, or

(ii) the concentration of any substance in the soil at a depth of 2 metres or more is greater than the standards for soil that would apply if the land use of the site were commercial land use;

(c.3) despite paragraph (a), for Crown land less than 15 metres from a natural gas or petroleum well head and the land use of the site is wildlands land use,

(i) the concentration of any substance in the soil at a depth of less than 2 metres is greater than the standards for soil that would apply if the land use of the site were reverted wildlands land use, or

(ii) the concentration of any substance in the soil at a depth of 2 metres or more is greater than the standards for soil that would apply if the land use of the site were commercial land use;

(d) the concentration of any substance at the site, not specified in Schedule 3.1, 3.2, 3.3 or 3.4, is greater than,

(i) if the substance is specified without a particular use, the concentration specified for that substance in a director's interim standard, and

(ii) if the substance is specified with a particular use, the concentration specified for that substance and use in a director's interim standard.

(2) Subsection (1) does not apply to a site in relation to a substance if the concentration of the substance in soil, surface water, groundwater, sediment or vapour at the site is not greater than the applicable site-specific numerical standard.

(3) Subsection (1) does not apply to a site in relation to a substance in the soil, surface water, groundwater, sediment or vapour if the concentration of the substance in the soil, surface water, groundwater, sediment or vapour is not greater than the local background concentration of that substance in the soil, surface water, groundwater, sediment or vapour respectively.

(4) Subsection (1) does not apply to a site in relation to a substance in the soil if

(a) the site has been used for the application of

(i) managed organic matter, as defined in the Organic Matter Recycling Regulation, B.C. Reg. 18/2002,

(ii) retail-grade organic matter, as defined in the Organic Matter Recycling Regulation, or

(iii) products derived from the materials described in subparagraphs (i) or (ii)

in a manner consistent with the Organic Matter Recycling Regulation or an authorization given under the Act, and

(b) the site has not been used for a commercial or industrial activity listed in Schedule 2.

[en. B.C. Regs. 322/2004 and 324/2004, s. 11; am. B.C. Regs. 343/2008, s. 5; 253/2016, s. 4.]

Specification of applicable land, water, sediment and vapour uses and site-specific factors

12 (1) For the purpose of using the standards in this regulation,

(a) if a protocol provides for more than one land use at a particular site, the land uses that apply, at any given time, to the site or a part of the site are the land uses that apply in accordance with the protocol, and

(b) otherwise, the land use that applies, at any given time, to a particular site or a part of a site is the primary land use at the surface of the site.

(2) For the purpose of using the standards in this regulation, the surface water uses or groundwater uses which apply, at any given time, to a particular site or part of a site are based on

(a) the uses of the surface water or groundwater at the site or on neighbouring sites, and

(b) the potential for the groundwater or surface water to cause pollution.

(2.1) For the purpose of using the standards in this regulation, the sediment use that applies, at any given time, to a particular site or a part of a site is based on

(a) the use of sediment at the site or at neighbouring sites, and

(b) the potential for the sediment to cause pollution.

(2.2) For the purpose of using the standards in this regulation, the vapour use that applies, at any given time, to a particular site or a part of a site is based on

(a) the uses of the land at the surface of the site, and

(b) the potential of the vapour to cause pollution.

(2.3) A director may specify the applicable land use under subsection (2.2) from the following:

(a) a land use specified in subsection (3) (a) to (f);

(b) if a parkade is located at the site, parkade use.

(3) Subject to subsection (6), a director may specify the applicable land use or uses, as the case may be, under subsection (1) from the following:

(a) wildlands land use or, if applicable, one of the following:

(i) natural wildlands land use;

(ii) reverted wildlands land use;

(b) agricultural land use;

(c) urban park land use;

(d) residential land use or, if applicable, one of the following:

(i) low density residential land use;

(ii) high density residential land use;

(e) commercial land use;

(f) industrial land use.

(4) A director may specify the applicable water uses under subsection (2) from the following:

(a) aquatic life water use;

(b) irrigation water use;

(c) livestock water use;

(d) drinking water use.

(4.1) A director may specify the applicable sediment use under subsection (2.1) from the following:

(a) typical sediment use;

(b) sensitive sediment use.

(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 neighbouring 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.

(6) If the current or anticipated future use of a site is not encompassed within any of the land uses specified in subsection (3), the land use that applies to the site must be chosen from the land uses in subsection (3) based on the historical activities at the site.

(7) For the purpose of using matrix numerical soil standards and site-specific numerical standards, a director may specify the applicable site-specific factors for a site after consideration of the land and water use factors in subsection (5).

(8) For the purpose of using matrix numerical soil standards and site-specific numerical soil standards, the site-specific factors for

(a) human intake of contaminated soil, and

(b) toxicity to soil invertebrates and plants

are mandatory and must be applied at every site.

[am. B.C. Regs. 322/2004 and 324/2004, s. 12; 343/2008, s. 6; 253/2016, s. 5.]

13 Repealed. [B.C. Reg. 343/2008, s. 7.]

Environmental management area

14 A director may designate a site as an environmental management area with respect to specified substances and specified sources if

(a) the site covers an extensive geographic area and comprises many individual properties, and

(b) many of the individual properties located within the bounds of the geographic area would, on an individual basis, likely be determined by the director to be contaminated with one or more of the specified substances in the designation.

[am. B.C. Regs. 322/2004 and 324/2004, s. 14; 239/2007, s. 3; 13/2019, s. 4.]

Procedures for determination of contaminated site

15 (1) The numerical standards must be applied in determining whether a site is a contaminated site.

(2) A director who makes a preliminary determination under section 44 (2) (a) of the Act must provide written reasons for the preliminary determination with the notice required by section 44 (2) (b) of the Act.

(3) After making a preliminary determination under section 44 (2) (a) of the Act, the director must allow a period for comment under section 44 (2) (c) of the Act of not less than 30 days and not more than 60 days after delivery of the notice of preliminary determination.

(4) Within 15 days after making a final determination under section 44 (2) (d) or (3) of the Act, the director must send the notice required by section 44 (2) (e) accompanied by written reasons for the final determination.

(5) A director may require that an application for a determination under section 44 of the Act include a report and the recommendation of an approved professional in respect of whether the site is a contaminated site.

(6) If the director does not impose a requirement under subsection (5), an application for a determination under section 44 of the Act may include a report and the recommendation of an approved professional in respect of whether the site is a contaminated site and, if so, section 49.1 applies.

(7) If a director rejects the recommendation of an approved professional provided under subsection (5) or (6), the director, within 15 days of the rejection, must provide written reasons to

(a) the applicant, and

(b) the professional association, in the Province, of which the approved professional is a member.

[en. B.C. Regs. 322/2004 and 324/2004, s. 15; am. B.C. Reg. 201/2007, s. 4.]

PART 6 – REMEDIATION STANDARDS

Remediation options

16 The numerical standards, or the risk based standards prescribed in section 18 or 18.1, may be used in relation to the remediation of a contaminated site.

[en. B.C. Regs. 322/2004 and 324/2004, s. 16.]

Application of numerical standards for remediation

17 (1) Subject to subsection (2), a contaminated site has been remediated in accordance with the numerical standards if

(a) the site is used for a land use specified in section 12 (3) (a) to (f) and the soil at the site does not contain any substance with a concentration greater than or equal to

(i) the applicable generic numerical soil standard, or

(ii) the lowest value of the applicable matrix numerical soil standards,

(a.1) Repealed. [B.C. Reg. 253/2016, s. 6 (b).]

(b) surface water or groundwater used for, or which has a reasonable probability of being used for, aquatic life, irrigation, livestock or drinking

water use does not contain any substance with a concentration greater than the generic numerical water standard for that substance and use,

(b.1) the sediment at the site does not contain any substance with a concentration greater than the generic numerical sediment standard for that substance for the applicable sediment use of the site,

(b.2) the vapour at the site does not contain any substance with a concentration greater than the generic numerical vapour standard for that substance for the applicable land use of the site,

(c) the soil, surface water, groundwater, sediment or vapour at the site does not contain any substance with a concentration greater than the concentration specified for that substance and use in a director's interim standard,

(d) despite paragraph (a), for land less than 15 metres from a natural gas or petroleum well head and the use of the site is agricultural land use,

(i) the soil at a depth of less than 2 metres does not contain any substance with a concentration greater than

(A) the generic numerical soil standard, or

(B) the lowest value of the applicable matrix numerical soil standard

that would apply if the land use of the site were agricultural land use, and

(ii) the soil at a depth of 2 metres or more does not contain any substance with a concentration greater than

(A) the generic numerical soil standard, or

(B) the lowest value of the applicable matrix numerical soil standard

that would apply if the land use of the site were commercial land use, and

(e) despite paragraph (a), for Crown land less than 15 metres from a natural gas or petroleum well head and the use of the site is wildlands land use,

(i) the soil at a depth of less than 2 metres does not contain any substance with a concentration greater than

(A) the generic numerical soil standard, or

(B) the lowest value of the applicable matrix numerical soil standard

that would apply if the land use of the site were reverted wildlands land use, and

(ii) the soil at a depth of 2 metres or more does not contain any substance with a concentration greater than

(A) the generic numerical soil standard, or

(B) the lowest value of the applicable matrix numerical soil standard

that would apply if the land use of the site were commercial land use.

(2) A contaminated site has been remediated in accordance with the numerical standards if

(a) the soil, surface water, ground water, vapour or sediment at the site does not contain any substance with a concentration greater than or equal to the applicable site-specific numerical standard for the soil, surface water, groundwater, vapour or sediment, respectively, or

(b) the soil, surface water, ground water, vapour or sediment at the site does not contain any substance with a concentration greater than the local background concentration of that substance in the soil, surface water, groundwater, vapour or sediment, respectively.

(3) Subject to subsection (4), and regardless of the use of the land at the surface of this site, the soil beyond a depth of 3 metres below the surface of land at a contaminated site has been remediated in accordance with numerical standards prescribed for the purposes of the definition of "contaminated site" if it or the vapour in it does not contain any substance with a concentration greater than or equal to the concentration specified for that substance for industrial land use in

(a) the generic numerical soil standard or the matrix numerical soil standard,

(a.1) the generic numerical vapour standard,

(b) a director's interim standard for soil or vapour, or

(c) the site-specific numerical standard for soil or vapour for that site.

(4) A director may require the application of the standards for soil or vapour referred to in subsection (1) or (2) to a depth greater than 3 metres for any specific site if the nature of the contaminants, the land use or proposed land use, site-specific factors or other factors indicate such action is necessary.

(4.1) Subsections (3) and (4) do not apply in relation to land to which subsection (1) (d) or (e) applies.

(5) If surface water or groundwater is not currently being used at the contaminated site for any of the purposes specified in subsection (1) (b), a director may specify a numerical standard for the surface water or groundwater as necessary to protect the present and future surface water or groundwater uses on neighbouring sites or to prevent pollution.

[am. B.C. Regs. 322/2004 and 324/2004, s. 17; 341/2008, s. 1; 253/2016, ss. 6 and 7.]

Application of risk-based standards for remediation

18 (1) The remediation standards have been met for a specific contaminated site if a responsible person satisfies a director that

(a) for any non-threshold carcinogenic substance, the calculated human lifetime cancer risk due to exposure to that substance at the site is less than

or equal to a risk value recommended by a medical health officer for the site, and

(b) for any substance for which a hazard index is calculated, the hazard index due to exposure of a human to that substance at the site is less than a maximum hazard index recommended by a medical health officer for that site.

(2) A responsible person who asks a director for a decision that the standards in subsection (1) have been met for a contaminated site must

(a) provide information to support and justify the basis for the request, and

(b) participate in and pay for a public community based consultation process facilitated by a medical health officer which

(i) is for the purpose of developing a recommendation on the acceptable level of human health risk for the site,

(ii) will consider remediation options in relation to levels of resulting human health risk at the site,

(iii) will be conducted in conjunction with any requirement under section 52 of the Act and section 55 (1) of this regulation, and

(iv) is carried out over a time period not exceeding 3 months from the date of the request under subsection (1) unless the person making the request, a medical health officer and the director agree to an alternate time period.

(3) Despite subsections (1) and (2), a director must consider a contaminated site to have been satisfactorily remediated without review and recommendation by a medical health officer if

(a) for each non-threshold carcinogenic substance, the calculated human lifetime cancer risk due to exposure to that substance at the site is less than or equal to one in 100 000, and

(b) for each substance for which a hazard index is calculated, the hazard index due to exposure of a human to that substance at the site is less than or equal to one.

(4) A director must not decide that the standards in subsection (1) have been met before receiving written recommendations with supporting rationale from a medical health officer respecting the matters described in subsection (1) (a) and (b).

(5) If a person demonstrates to the satisfaction of a director that the local background concentration of any substance at a particular site results in the standards required by subsection (1) or (3) being exceeded, the remediation standards for that substance must be the calculated lifetime cancer risk and calculated hazard index which results from exposure of a human to the local background concentration of that substance at the site.

(6) A person who applies the risk-based standards of this section must also prepare an environmental risk assessment report which identifies

(a) the potential onsite and offsite environmental risks of any substances causing contamination before and after remediation, and

(b) procedures, including monitoring, designed to mitigate any significant potential risks identified in paragraph (a).

(7) A director may impose requirements on a responsible person to prevent or mitigate risks identified

(a) in the environmental risk assessment report required under subsection (6), or

(b) by the director using other available data.

[am. B.C. Regs. 17/2002, s. 7; 322/2004 and 324/2004, s. 18; 116/2018, Sch. 2, s. 2.]

Application of risk-based standards for remediation at environmental management areas

18.1 (1) The remediation standards have been met with respect to a substance from a source specified under section 14 if a director is satisfied that

(a) the risk to human health due to exposure to that substance at the site is less than or equal to a maximum value recommended by a medical health officer for the environmental management area,

(b) the maximum value recommended by a medical health officer under paragraph (a) takes a form other than that of a hazard index or cancer risk, and

(c) the recommendation under paragraph (a) has been reviewed and endorsed by the provincial health officer.

(2) A responsible person who asks a director for a decision that the standards in subsection (1) have been met for a contaminated site must

(a) provide information to support and justify the basis for the request, and

(b) participate in and pay for a public community based consultation process, acceptable to and facilitated by a medical health officer, that

(i) is for the purpose of developing a recommendation on the acceptable level of human exposure and health risk for the site,

(ii) considers remediation options in relation to levels of human exposure and health risk at the site,

(iii) is conducted in conjunction with any requirement under section 52 of the Act and section 55 (1) of this regulation, and

(iv) is carried out over a time period not exceeding 6 months from the date of the request under subsection (1), unless the person making the request, a medical health officer and the director agree to an alternate time period.

(3) A director must not decide that the standards in subsection (1) have been met before receiving written recommendations with supporting rationale from a medical health officer respecting the matters described in subsection (1) (a) and a written review and endorsement of the recommendations from the provincial health officer under subsection (1) (c).

(4) Despite subsections (1) and (2), the director must consider an environmental management area to have been satisfactorily remediated with respect to each substance from a source specified in section 14 without review and recommendation from a medical health officer if

(a) for each non-threshold carcinogenic substance, the calculated human lifetime cancer risk due to exposure to that substance at the site is less than or equal to one in 100 000, and

(b) for each substance for which a hazard index is calculated, the hazard index due to exposure of a human to that substance at the site is less than or equal to one.

(5) A person who applies the risk-based standards of this section with respect to specified substances must also prepare an environmental risk assessment report that identifies

(a) the potential onsite and offsite environmental risks of each specified substance before and after the remediation, and

(b) procedures, including monitoring, designed to mitigate any significant potential risks identified in paragraph (a).

(5.1) If a person demonstrates to the satisfaction of a director that the local background concentration of any substance at a particular environmental management area results in the standards required by subsection (1) or (4) being exceeded, the remediation standards for that substance must be the calculated lifetime cancer risk and calculated hazard index that result from exposure of a human to the local background concentration of that substance at the environmental management area.

(6) A director may impose requirements on a responsible person to prevent or mitigate risks identified

(a) in the environmental risk assessment report required under subsection (5), or

(b) by the director using other available data.

[en. B.C. Reg. 17/2002, s. 8; am. B.C. Regs. 322/2004 and 324/2004, s. 19; 116/2018, Sch. 2, s. 3; 13/2019, s. 5.]

PART 7 – LIABILITY

Persons not responsible – transporters and arrangers

19 For the purposes of section 46 (1) (n) of the Act, a person described in section 45 (1) (c) or (d) or (2) (c) or (d) of the Act is designated not responsible for remediation of a contaminated site in relation to a substance if the person

(a) did not control the disposal, handling or treatment of the substance, or

(b) by contract, agreement or otherwise merely required

(i) adoption of standards of design, construction or operation of works at the site which were intended to prevent contamination, or

(ii) compliance with environmental laws, standards, policies or codes of practice of government which applied at the time of producing, transporting or arranging for transport of the substance.

[am. B.C. Regs. 322/2004 and 324/2004, s. 20.]

Persons not responsible – sureties

20 (1) Subject to subsection (2), a surety who issues a bid bond, performance bond or labour and materials payment bond for a contract with respect to construction activities at a site which

(a) is a contaminated site at the effective date of issuance of the bond, or

(b) became a contaminated site after the effective date of issuance of the bond

is designated for the purposes of section 46 (1) (n) of the Act not responsible for remediation of the contaminated site and is exempt from an order under section 83 (2) (f) of the Act in relation to the contaminated site, unless the surety exercised control over or imposed requirements on any person regarding the manner of treatment, disposal or handling of a substance and the control or requirements, in whole or in part, caused the site to become a contaminated site.

(2) A surety does not exercise control or impose requirements under subsection (1) if the surety acts under its rights or obligations with respect to the bond including, without limitation, any of the following:

(a) participating only in purely financial matters related to construction activities at the site;

(b) having the capacity or ability to influence any operation at the contaminated site in a way that would have the effect of causing or increasing contamination, but does not exercise that capacity or ability in such a way as to cause or increase contamination;

(c) imposing requirements on any person if the requirements do not have a reasonable probability of causing or increasing contamination of the site;

(d) appointing a person to inspect or investigate a contaminated site to determine future steps or actions that the surety might take;

(e) imposing requirements on any person to comply with environmental laws, standards, policies or codes of practice of government or industry, including requirements to perform monitoring tests, scientific studies or to remediate contaminated sites.

(3) Subject to subsections (4) and (5), the liability of the surety is limited to the cost of remediation and the cost of completion of the bonded contract in accordance with the terms and conditions of the bond.

(4) The liability of the surety under subsection (3) is limited to the penal sum of the bond.

(5) The limitation under subsections (3) and (4) does not apply to a surety who intentionally caused environmental damage or was grossly negligent or guilty of wilful misconduct with respect to

(a) the use of the environment, or

(b) the lives or safety of persons.

[am. B.C. Regs. 322/2004 and 324/2004, s. 21.]

Persons not responsible – insurers and insurance brokers

21 (1) Subject to subsection (2), an insurer or insurance broker who undertakes risk evaluation, physical inspection of hazards or loss control activities at a site which

(a) is a contaminated site at the date of such activities, or

(b) became a contaminated site after the date of such activities

is designated for the purposes of section 46 (1) (n) of the Act not responsible for remediation of the contaminated site and is exempt from an order under section 83 (2) (f) of the Act in relation to the contaminated site, unless the insurer or insurance broker exercised control over or imposed requirements on any person regarding the manner of treatment, disposal or handling of a substance and the control or requirements, in whole or in part, caused the site to become a contaminated site.

(2) An insurer or insurance broker does not exercise control or impose requirements under subsection (1) if the insurer or insurance broker acts pursuant to rights or obligations with respect to an insurance policy including, without limitation, any of the following:

(a) participating only in purely financial matters related to providing insurance at the site;

(b) having the capacity or ability to influence any operation at the contaminated site in a way that would have the effect of causing or increasing contamination, but does not exercise the capacity or ability in such a way as to cause or increase contamination;

(c) imposing requirements on any person if the requirements do not have a reasonable probability of causing or increasing contamination of the site;

(d) appointing a person to inspect or investigate a contaminated site to determine future steps or actions that the insurer or insurance broker may take;

(e) imposing requirements on any person to comply with environmental laws, standards, policies or codes of practice of government or industry, including requirements to perform monitoring tests, scientific studies or to remediate contaminated sites.

(3) Subject to subsection (4), if an insurer or insurance broker is responsible for remediation, the liability of the insurer is limited to the cost of remediation, provided that such liability does not exceed the sum of any proceeds of any insurance coverage that is provided for the subject site for the purpose of covering such environmental risks.

(4) The limitation under subsection (3) does not apply to an insurer or insurance broker who intentionally caused environmental damage or who was grossly negligent or guilty of wilful misconduct with respect to

(a) the use of the environment, or

(b) the lives or safety of persons.

(5) This section does not affect any rights or obligations under an insurance policy.

[am. B.C. Regs. 322/2004 and 324/2004, s. 22.]

Persons not responsible – certain owners

22 (1) Subject to subsection (2), for the purposes of section 46 (1) (n) of the Act, a person is designated not responsible for remediation of a contaminated site if, with respect to the contaminated site, the person is a current or previous owner of

(a) an easement,

(b) a right of way,

(c) a restrictive covenant,

(d) a covenant under section 219 of the *Land Title Act*,

(e) a lien,

(f) a judgement,

(g) a reservation in a Crown grant, or

(h) an interest in real property which deals exclusively with subsurface rights including such a tenure under the *Geothermal Resources Act*, the *Mineral Tenure Act* or the *Petroleum and Natural Gas Act*.

(2) Subsection (1) does not apply unless the person can establish that there has been no use or exercise of any right of the interest specified in paragraphs (a) to (h) of that subsection in a manner that, in whole or in part, caused the site to become a contaminated site.

[am. B.C. Regs. 244/99, s. 9; 322/2004 and 324/2004, s. 23.]

Persons not responsible – producers arranging for transportation

23 For the purposes of section 46 (1) (n) of the Act, a person described in section 45 (1) (c) or (d) of the Act is designated not responsible for remediation of a contaminated site if

(a) the person transferred ownership of a substance and responsibility for managing the substance to a transporter who

(i) intended at the time of the transfer to transport the substance to a site where the owner or operator of the site was at that time legally entitled to accept the substance, and

(ii) spilled or otherwise discharged the substance after the transfer but before delivering the substance to the person described in subparagraph (i), and

(b) the person did not by contract, agreement or otherwise impose requirements on the transporter in a manner which caused, in whole or in part, the spill or discharge referred to in paragraph (a) (ii).

[am. B.C. Regs. 322/2004 and 324/2004, s. 24.]

Persons not responsible – construction on contaminated sites

24 For the purposes of section 46 (1) (n) of the Act, a person is designated not responsible for remediation of a contaminated site if the person provided only contracting or consulting services related to the construction of buildings and facilities at the contaminated site.

[en. B.C. Regs. 322/2004 and 324/2004, s. 25.]

Persons not responsible – secured creditors

25 (1) For the purposes of section 46 (1) (n) of the Act, a secured creditor described in section 45 (3) (a) of the Act is designated not responsible for remediation of a contaminated site if the secured creditor does any of the following:

(a) imposes requirements on any person to comply with environmental laws, standards, policies or codes of practice of government or industry, including requirements to perform monitoring tests, scientific studies or to remediate contaminated sites;

(b) participates in loan work out actions, including the giving of financial or other advice to a financially distressed borrower, restructuring or renegotiating the terms of a security interest, requiring additional payments or consideration, or exercising forbearance;

(c) takes steps, whether or not they are part of realization proceedings, to preserve, protect or enhance the value of the secured assets or to reduce or prevent future contamination or the migration of existing contaminants or otherwise conduct any independent remediation;

(d) subject to section 45 (3) (b) of the Act and subsection (2) of this section, undertakes realization proceedings.

(2) Subject to subsection (3), the liability of a secured creditor who becomes a registered owner in fee simple of real property at a contaminated site exists and endures under section 45 (3) (b) of the Act only while the secured creditor is the registered owner in fee simple of the real property.

(3) Subsection (2) does not remove the liability of a secured creditor for remediation of a contaminated site under Part 4 of the Act if the secured creditor who became the registered owner in fee simple of real property at the contaminated site at any time exercised control over or imposed requirements on any person regarding the manner of treatment, disposal or handling of a substance and the control or requirements, in whole or in part, caused the site to become a contaminated site.

[am. B.C. Regs. 322/2004 and 324/2004, s. 26.]

Persons not responsible – receivers, receiver managers and bankruptcy trustees

26 (1) In this section:

"available funds" means any and all funds realized by a receiver less

(a) the costs of realization and sale of property,

(b) the claims of trade creditors of the receiver,

(c) the claims of the receiver for remuneration and indemnification,

(d) the authorized borrowings of the receiver inclusive of interest, and

(e) the proceeds of property disposed of by the receiver, but only to the extent that those proceeds are required by the receiver to discharge a mortgage, lien, charge or security interest in the property which was filed, perfected or registered before the earlier of

(i) the date when a remediation order or other order under the Act respecting the property was entered on the site registry, or

(ii) the date when the receiver receives a remediation order or other order under the Act respecting the property;

"dispose" includes to transfer by a vesting order issued by a court;

"receiver" means a current or previous receiver, receiver manager, liquidator or bankruptcy trustee who is an owner or operator under the Act.

(2) For the purposes of section 46 (1) (n) of the Act, a receiver is designated not responsible personally under Part 4 of the Act for remediation of a contaminated site and is exempt personally from an order under section 81 or 83 of the Act in relation to the contaminated site, including a site that was a contaminated site on the date that the receiver became an owner or operator of that site, unless it is established that

(a) the receiver at any time exercised control over or imposed requirements on any person regarding the manner of treatment, disposal or handling of a substance,

(b) the receiver was grossly negligent or guilty of wilful misconduct in the exercise of such control over or the imposition of such requirements on a person, and

(c) such control or requirements caused the site to become, in whole or in part, a contaminated site,

in which case, the receiver is designated as responsible personally for remediation of the contaminated site and is not exempt personally from an order under section 81 or 83 of the Act.

(3) For the purposes of section 45 (1) (e) of the Act, a receiver is designated responsible, in his or her role as receiver and to the extent of the receivership, for remediation of a contaminated site, and is subject to an order under section 81 or 83 of the Act in relation to the contaminated site in that role and to that extent.

(3.1) For the purposes of subsection (3), the **"extent of the receivership"** means

(a) the limit of the available funds, and

(b) the period commencing with the receiver's appointment and ending with a termination under subsection (5).

(4) If a receiver does not have sufficient available funds to comply with applicable remediation requirements under Part 4 of the Act or any other order made under the Act, the receiver must give notice to a director of the lack of available funds as soon as the receiver becomes aware of the fact.

(5) A receiver's obligation under subsection (3) terminates when any of the following occurs:

(a) the receiver gives notice to a director under subsection (4);

(b) the receiver pays all available funds to a director, the minister or the Minister of Finance, in trust, for remediation of the contaminated site;

(c) the receiver resigns the appointment;

(d) the receiver is removed or discharged by the court or otherwise ceases to be a receiver;

(e) subject to subsection (6), the receiver disposes of a contaminated site to a person who

(i) agrees, in writing, to accept responsibility for remediation, or

(ii) enters into a voluntary remediation agreement with a director;

(f) subject to subsection (6), the receiver disposes of a contaminated site to a person in circumstances in which, at the time of the disposition,

(i) there is no requirement on the receiver to provide a site profile or, if there is such a requirement, the receiver has complied with it,

(ii) there is no record of contamination at the site on the site registry, and

(iii) the receiver has no knowledge of any contamination at the site.

(6) If a receiver disposes of part of a contaminated site in accordance with subsection (5) (e) or (f), the receiver's obligation under subsection (3) is terminated only with respect to that part.

(7) On application by a receiver or a director, the court may order that the obligation of the receiver is terminated with or without conditions or make any order it considers just, but this subsection does not provide the court with the power to set aside provincial legislation.

(8) A receiver who applies to the court under subsection (7) must give notice to a director, and the director may make representations to the court respecting the application.

(9) A receiver who

(a) has provided a site profile under section 40 (7) of the Act,

(b) is subject to an obligation to provide a site profile under section 40 (8) of the Act, or

(c) is in possession of a site for which there is an entry on the site registry indicating that the site

(i) has been determined, in whole or in part, to be a contaminated site under section 44 of the Act, or

(ii) is otherwise expressly stated to be, in whole or in part, a contaminated site,

must give written notice to a director of

(d) any proposed distribution of available funds at least 15 days before the date of the proposed distribution, or

(e) any proposed abandonment of the site or part of the site by the receiver at least 15 days before the date of the proposed abandonment if the receiver

(i) resigns the appointment, or

(ii) applies to a court for a discharge.

(10) A receiver, within 30 days after receiving a remediation order or a pollution abatement order, may give written notice to a director that, during that 30 day period, the receiver is determining or assessing

(a) the ability and willingness of the receiver to administer the property at the contaminated site,

(b) the responsibilities which would be incurred by the receiver in administering the property, and

(c) whether the receiver should seek to terminate the appointment in accordance with subsection (5) or abandon the contaminated site,

and during that period, subject to subsections (11) to (13), the receiver is not required to comply with the remediation order or the pollution abatement order.

(11) A receiver may, upon giving notice in writing to a director, apply to the court for an extension of the 30 day period described in subsection (10), but this provision does not apply if the director agrees to the extended time proposed by the receiver.

(12) The court, on hearing an application under subsection (11), must not order an extension unless it determines that an extension is reasonably necessary to permit the receiver to ascertain the environmental condition of the site and the extent and cost of fulfilling the duties arising from the operation or control of the site and compliance with the director's order.

(13) If a director requires compliance with a remediation order or a pollution abatement order within the 30 day period to reduce the threat of a contaminated site, the director may, upon giving written notice to the receiver, seek a court order to reduce the 30 day period described in subsection (10), but this provision does not apply if the receiver agrees to the reduced time proposed by the director.

(14) Despite any other provision in this section, a director may agree to the continued involvement of a receiver in the remediation of a contaminated site even if there are insufficient available funds to satisfy the costs of remediation.

[am. B.C. Regs. 322/2004 and 324/2004, s. 27.]

Persons not responsible – trustees, executors, administrators and other fiduciaries

27 (1) In this section:

"available funds" means the net realizable value of the trust property but does not include

(a) the costs of realization and sale of trust property,

(b) the claims of the trustee for remuneration and indemnification,

(c) trust property paid, distributed or transferred to any party by the trustee before receiving a remediation order or other order under the Act, but only if, at the time the trustee paid, distributed or transferred the trust property,

(i) there was no requirement on the trustee to provide a site profile, and

(ii) the trustee had no actual knowledge of any contamination at the site, or

(d) the proceeds of trust property disposed of by the trustee, but only to the extent that those proceeds are required by the trustee to discharge a mortgage, lien, charge or security interest in the property which was filed, perfected or registered before the earlier of

(i) the date when a remediation order or other order under the Act respecting the property is entered on the site registry, or

(ii) the date when the trustee receives a remediation order or other order under the Act respecting the property;

"trust property" means the property held by a trustee in a fiduciary capacity and includes

(a) in relation to a trustee who is a committee of the estate of a patient, the patient's property,

(b) in relation to a trustee who is an attorney acting under an enduring power of attorney whose principal lacks the capacity to manage his or her affairs, the principal's property, and

(c) in relation to a guardian of a child, the child's property;

"trustee" includes

(a) an executor or an administrator of the estate of a deceased person,

(b) an express trustee or a bare trustee,

(c) a committee or other person appointed by a court as a representative under any adult guardianship legislation,

(d) a guardian, or the property guardian of a child, and

(e) an attorney acting under an enduring power of attorney whose principal lacks the capacity to manage his or her own affairs,

but does not include a receiver as defined in section 26.

(2) For the purposes of section 46 (1) (n) of the Act, a trustee is designated not responsible personally under Part 4 of the Act for remediation of a contaminated site and is exempt personally from an order under section 81 or 83 of the Act in relation to the contaminated site, including a site that was a contaminated site on the date that the trustee became an owner or operator of that site, unless it is established that

(a) the trustee at any time exercised control over or imposed requirements on any person regarding the manner of treatment, disposal or handling of a substance,

(b) the trustee was grossly negligent or guilty of wilful misconduct in the exercise of such control over or the imposition of such requirements on a person, and

(c) such control or requirements caused the site to become, in whole or in part, a contaminated site.

in which case, the trustee is designated responsible personally for remediation of the contaminated site and is not exempt personally from an order under section 81 or 83 of the Act.

(3) For the purposes of section 45 (1) (e) of the Act, a trustee is designated as responsible, in his or her role as a trustee and to the extent of the trust, for remediation of a contaminated site, and is subject to an order under section 81 or 83 of the Act in relation to the contaminated site in that role and to that extent.

(3.1) For the purposes of subsection (3), **"extent of the trust"** means

(a) the limit of the available funds, and

(b) the period commencing with the trustee's appointment and ending with a termination under subsection (5).

(4) As soon as a trustee is aware that the available funds are insufficient to comply with applicable remediation requirements under Part 4 of the Act or any other order made under the Act, the trustee must immediately give notice to a director of the trustee's inability to meet the order or remediation requirements out of the available funds.

(5) A trustee's obligation under subsection (3) terminates when any of the following occurs:

(a) the trustee gives notice to a director under subsection (4);

(b) the trustee pays or transfers the trust property to a director, the minister or the Minister of Finance, in trust, for remediation of the contaminated site;

(c) subject to subsection (6), the trustee disposes of a contaminated site to a person who

(i) agrees, in writing, to accept responsibility for remediation, or

(ii) enters into a voluntary remediation agreement with a director;

(d) subject to subsection (6), the trustee disposes of a contaminated site to a person in circumstances in which, at the time of disposition,

(i) there is no requirement on the trustee to provide a site profile or, if there is such a requirement, the trustee has complied with it,

(ii) there is no record of contamination of the site on the site registry, and

(iii) the trustee has no knowledge of any contamination at the site;

(e) subject to subsection (7), the trustee is removed or discharged by the court or otherwise ceases to be a trustee.

(6) When a trustee disposes of part of a contaminated site in accordance with subsection (5) (c) or (d), the trustee's obligation under subsection (3) is terminated only with respect to that part.

(7) On application by a trustee or a director, a court may order that the obligation of the trustee under Part 4 of the Act or section 81 or 83 of the Act is terminated, with or without conditions, or make any order it considers just, but this subsection does not provide the court with the power to set aside provincial legislation.

(8) A trustee who applies to a court under subsection (7) must give notice to a director, and the director may make representations to the court respecting the application.

(9) A trustee who administers trust property for which there is an entry on the site registry indicating that the trust property

(a) has been determined, in whole or in part, to be a contaminated site under section 44 of the Act, or

(b) is otherwise expressly stated to be, in whole or in part, a contaminated site

must give written notice to a director of any proposed disposition of the contaminated site, or part of the contaminated site, by the trustee under subsection (5) (c) and (d) at least 15 days before the date of the proposed disposition.

(10) A trustee may, within 30 days after receiving a remediation order, a pollution abatement order or a pollution prevention order under the Act, give written notice to a director that, during that 30 day period, the trustee is determining or assessing

(a) the ability of the trustee to comply with the order,

(b) the responsibilities which would be incurred by the trustee in administering the trust property, and

(c) whether the trustee should seek to terminate the appointment under subsection (5),

and, during that period and subject to subsections (11) to (13), the trustee is not required to comply with the remediation order, pollution abatement order or pollution prevention order.

(11) A trustee may, upon giving written notice to a director, apply to the court for an extension of the 30 day period described in subsection (10), but this provision does not apply if the director agrees to the extended time proposed by the trustee.

(12) The court, on hearing an application under subsection (11), must not order an extension unless it determines that an extension is reasonably necessary to permit the trustee to ascertain the environmental condition of the site and the extent and cost of fulfilling the duties arising from the operation or control of the site and compliance with the director's order.

(13) If a director requires compliance with a remediation order, a pollution abatement order or a pollution prevention order within the 30 day period to reduce the threat of a contaminated site, the director may, upon giving written notice to the trustee, seek a court order to reduce the 30 day period described in subsection (10), but this provision does not apply if the trustee agrees to the reduced time proposed by the director.

(14) Despite subsection (5) (b), a director may agree to the continued involvement of a trustee in the ongoing trust administration duties of the trust property.

[am. B.C. Regs. 322/2004 and 324/2004, s. 28; 365/2012.]

Persons not responsible – clarification of innocent acquisition exemption

28 When judging whether an owner or operator has, under section 46 (1) (d) (i) (C) of the Act, undertaken all appropriate inquiries into the previous ownership and uses of a site and undertaken other investigations consistent with good commercial or customary practice at the time of acquisition of the property, consideration must be given to all of the following:

(a) any personal knowledge or experience of the owner or operator respecting contamination at the time of the acquisition;

(b) the relationship of the actual purchase price to the value of the property if it was uncontaminated;

(c) commonly known or reasonably ascertainable information about the property at the time of the acquisition;

(d) any obvious presence of contamination or indicators of contamination or the feasibility of detecting such contamination by appropriate inspection at the time of the acquisition.

[am. B.C. Regs. 322/2004 and 324/2004, s. 29.]

Persons not responsible – modification of lessor liability under section 46 (1) (e) of the Act

29 Subject to section 30, an owner of real property at a contaminated site is exempt from section 46 (1) (e) of the Act if

(a) the owner voluntarily leased, rented or otherwise allowed use of the real property by another person,

(b) the owner knew or had a reasonable basis for knowing that the other person described in paragraph (a) planned or intended to use the real property to dispose of, handle or treat a substance in a manner that, in whole or in part, would cause the site to become a contaminated site, and

(c) the person described in paragraph (a) used the real property to dispose of, handle or treat a substance in a manner that, in whole or in part, caused the site to become a contaminated site.

[am. B.C. Regs. 322/2004 and 324/2004, s. 30.]

Persons not responsible – lessors who provide surface access for subsurface use

30 A lessor who, under the *Petroleum and Natural Gas Act*, enters into a surface lease agreement with a lessee that allows the lessee access to subsurface resources is, for the purposes of section 46 (1) (n) of the Act, designated not responsible for remediation of contamination caused by the lessee if the agreement requires the lessee to covenant and agree to indemnify and save harmless the lessor from any liabilities, damages, costs, claims, suits or actions arising out of the lessee's operations on the lessor's lands, except liabilities, damages, costs, claims, suits or actions arising out of the gross negligence or wilful misconduct of the lessor, its agents, servants, employees or contractors.

[am. B.C. Regs. 322/2004 and 324/2004, s. 31.]

Persons responsible – municipalities

31 For the purposes of 45 (1) (e) of the Act, a government body that acquires an ownership interest in a contaminated site by a municipal boundary extension or a municipal amalgamation initiated by the municipality is designated responsible for remediation of the contaminated site.

[en. B.C. Regs. 322/2004 and 324/2004, s. 32.]

Persons not responsible – transporters of contaminated soil

32 (1) A transporter of contaminated soil who is otherwise in compliance with the Act and the regulations is, for the purposes of section 46 (1) (n) of the Act, designated not responsible for remediation of a site which becomes contaminated by disposal or deposit of contaminated soil if there has been any misrepresentation to the transporter by

(a) a person who arranged for the transportation of the contaminated soil respecting the quality or degree of contamination of the soil, or

(b) a person who agrees to receive the contaminated soil respecting the quality, degree of contamination or acceptability of the disposal location in accordance with any requirement in Part 8.

(2) Subsection (1) applies only if the transporter acted in good faith and without negligence.

[am. B.C. Regs. 322/2004 and 324/2004, s. 33.]

Persons not responsible – contamination which is subject to a wide area remediation plan

33 (1) Subject to subsection (2), a person who is a current or previous owner or operator of a contaminated site is, for the purposes of section 46 (1) (n) of the Act, designated not responsible for remediation of the site if the site is contaminated only by substances being managed in accordance with a wide area remediation plan.

(2) Subsection (1) does not apply to a person who caused the contamination which is the subject of a wide area remediation plan.

[am. B.C. Regs. 322/2004 and 324/2004, s. 33.]

34 Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 34.]

Determining compensation under section 47 (5) of the Act

35 (1) For the purposes of determining compensation payable under section 47 (5) of the Act, a defendant named in a cost recovery action under that section may assert all legal and equitable defences, including any right to obtain relief under an agreement, other legislation or the common law.

(2) In an action between 2 or more responsible persons under section 47 (5) of the Act, the following factors must be considered when determining the reasonably incurred costs of remediation:

(a) the price paid for the property by the person seeking cost recovery;

(b) the relative due diligence of the responsible persons involved in the action;

(c) the amount of contaminating substances and the toxicity attributable to the persons involved in the action;

(d) the relative degree of involvement, by each of the persons in the action, in the generation, transportation, treatment, storage or disposal of the substances that caused the site to become contaminated;

(e) any remediation measures implemented and paid for by each of the persons in the action;

(f) other factors relevant to a fair and just allocation.

(3) For the purpose of section 47 of the Act, any compensation payable by a defendant in an action under section 47 (5) of the Act is a reasonably incurred cost of remediation for that responsible person and the defendant may seek contribution from any other responsible person in accordance with the procedures under section 4 of the *Negligence Act*.

(4) In an action under section 47 (5) of the Act against a director, officer, employee or agent of a person or government body, the plaintiff must prove that the director, officer, employee or agent authorized, permitted or acquiesced in the activity which gave rise to the cost of remediation.

(5) In an action under section 47 (5) of the Act, a corporation is not liable for the costs of remediation arising from the actions of a subsidiary corporation unless the plaintiff can prove that the corporation authorized, permitted or acquiesced in the activity of the subsidiary corporation which gave rise to the costs of remediation.

[am. B.C. Regs. 322/2004 and 324/2004, s. 35.]

Remediation orders – timing for consent and notice

36 (1) Subject to subsection (3), a director who receives

(a) a site profile under section 40 (7) of the Act, and

(b) a request under section 48 (10) of the Act for notice respecting whether a remediation order will be issued,

must provide the notice within 10 days after receiving the site profile.

(2) Subject to subsection (3), if a director is requested by a person to give consent under section 48 (8) of the Act, the director must consider the request and give written notice of the decision to the person within 10 days after receiving the site profile.

(3) If a director requires more than 10 days to obtain or consider information relevant to the request under subsection (1) or (2), the director must

(a) give notice to the person making the request under subsection (1) (b) or (2) that more time is required, and

(b) state, in the notice given under paragraph (a), how much more time is required.

(4) Despite subsection (3), a director must not take more than 30 days to review and respond to

(a) a person's request for consent under section 48 (8) of the Act, or

(b) a person's request for notice under section 48 (10) of the Act respecting whether a remediation order will be issued.

[am. B.C. Regs. 322/2004 and 324/2004, s. 36.]

Remediation orders – diminishing or reducing assets

37 A person is exempt from the duty not to diminish or reduce assets under section 48 (8) or (10) of the Act to the extent that the person does any of the following:

(a) converts or exchanges assets from one class or kind to another class or kind including, without limitation, allowing the sale and conversion of inventory to a receivable or the collection and conversion of a receivable into cash;

(b) uses assets to satisfy liabilities as they become due, including paying fair value for supplies, services or other benefits conferred on the person, or on a receiver as defined in section 26 or a trustee as defined in section 27, carrying out the management function with respect to the asset;

(c) makes or accepts payments on loans or advances, revolves an operating line of credit, makes demand on a term or operating loan, reduces the maximum available under an operating line of credit or refuses to advance further funds;

(d) processes natural resources, including crude oil, natural gas and timber;

(e) installs infrastructure to provide services;

(f) provides services to customers;

(g) is a receiver as defined in section 26 or trustee as defined in section 27 who complies with section 26 or 27 respectively;

(h) realizes on a mortgage, lien, charge or other security interest.

[am. B.C. Regs. 322/2004 and 324/2004, s. 37.]

Minor contributors

38 A responsible person applying for minor contributor status under section 50 of the Act must provide information to a director, to the extent the information is reasonably ascertainable, respecting all of the following:

(a) the condition of the contaminated site at the time the applicant

(i) became an owner or operator at the site, and

(ii) if applicable, ceased to be an owner or operator at the site;

(b) any activities and land uses carried out by the applicant while located at the site;

(c) the nature and quantity of contamination at the site attributable to the applicant;

(d) all measures taken by the applicant to prevent or remediate contamination;

(e) contamination on the site or released from the site which is attributable to

(i) the applicant, and

(ii) other persons at the site;

(f) all measures taken by the applicant to exercise due diligence with respect to any substance that, in whole or in part, caused the site to become a contaminated site, including any measures taken to prevent foreseeable acts of third parties which may have contributed to the contamination at the site.

[am. B.C. Regs. 322/2004 and 324/2004, s. 38.]

Voluntary remediation agreements

39 (1) A responsible person requesting a voluntary remediation agreement in respect of a contaminated site, including an environmental management area, must provide all of the following information to a director:

(a) a detailed site investigation;

(b) a remediation plan;

(c) a detailed description of the responsible person's past and present activities on the site, including the amount and characteristics of contamination at the site attributable to that person's activities;

(d) an estimate of the total cost of remediation;

(e) an estimate of the responsible person's share of the total cost of remediation and justification for the estimate;

(f) the name and address of any other person who the responsible person has reason to believe may, with respect to the subject contaminated site, be a responsible person;

(g) a statement describing the responsible person's ability and plans to conduct and finance the remediation.

(2) Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 39 (c).]

(3) Before a director enters into a voluntary remediation agreement with a responsible person, the director must notify any persons identified as other potential responsible persons under subsection (1) (f) and allow those persons not less than 15 days to give notice if they wish to review or make representations to the director about the proposed voluntary remediation agreement.

[am. B.C. Regs. 322/2004 and 324/2004, s. 39; 13/2019, s. 6.]

PART 8 – CONTAMINATED SOIL RELOCATION

Class of sites defined for Part 8

40 (1) In this Part:

"receiving site" means the site to which contaminated soil is or will be relocated under a contaminated soil relocation agreement;

"source site" means the site from which contaminated soil is or will be relocated under a contaminated soil relocation agreement.

(2) For the purposes of this Part, a source site is deemed to be a contaminated site if a contaminated soil relocation agreement is required in respect of contaminated

soil, as described in section 46.1 (1), that is or will be relocated from the source site to a receiving site.

(3) The relocation of contaminated soil from a contaminated site is exempt from section 55 of the Act if section 10 of the Act applies to the transportation of the contaminated soil.

[en. B.C. Regs. 322/2004 and 324/2004, s. 40; am. B.C. Regs. 343/2008, s. 8; 184/2016, s. 1; 253/2016, s. 8, as am. by B.C. Reg. 196/2017, s. 1.]

Exemptions for soil relocation and disposal

41 (1) Disposal of the following classes of soil is exempt from section 6 (2) and (3) of the Act:

(a) soil in which the concentrations of all substances are less than the lowest applicable industrial land use standard specified for those substances in

(i) the generic numerical soil standards,

(ii) the matrix numerical soil standards, or

(iii) a director's interim standard for soil;

(b) contaminated soil relocated in accordance with a contaminated soil relocation agreement under section 55 (2) of the Act.

(2) A regional district is not required to include soil in its waste management plan for the management of municipal solid waste.

(3) The relocation of contaminated soil is exempt from section 55 (1) of the Act and this Part in the following circumstances:

(a) relocation of contaminated soil on the site at which the contaminated soil originates;

(b) relocation of contaminated soil which is contaminated due only to the presence of the local background concentration of a substance, but only if the contaminated soil is relocated within the geographic area having soil with this local background level of contamination;

(c) relocation of contaminated soil within an area subject to a wide area remediation plan approved by a director, but this exemption applies only with respect to the contaminants which are the subject of the wide area remediation plan;

(d) relocation of contaminated soil originating from emergency cleanup of a spill, but only if notice of the location to which the soil has been relocated is provided to a director within 3 days of the soil relocation;

(e) Repealed. [B.C. Reg. 184/2016, s. 2.]

(f) relocation of contaminated soil to a destination outside of British Columbia;

(g) relocation of contaminated soil from a specific site not exceeding 5 cubic metres in volume;

(h) relocation of contaminated soil to federal property.

[am. B.C. Regs. 244/99, s. 10; 322/2004 and 324/2004, s. 41; 184/2016, s. 2; 253/2016, s. 9.]

Soil relocation to a landfill without a contaminated soil relocation agreement

42 (1) If a site is authorized for landfill waste disposal in any of the ways referred to in section 55 (5) (a), (b) or (c) of the Act but the authorization does not expressly allow the deposit of contaminated soil, the deposit of contaminated soil in the landfill is exempt from section 55 (1) of the Act if

(a) the owner of the site authorized for landfill waste disposal has filed a written statement with a director indicating the intended future use of the site, and

(b) the written statement indicates that the concentration of any substance in the contaminated soil is not greater than or equal to the lowest concentration for that substance specified in Schedule 3.1 for the applicable future land use.

(2) Subsection (1) does not authorize the deposit of soil if the deposit would be contrary to an authorization given under the Act.

(3) Subsection (1) does not prevent an owner of a site for which an authorization has been given under the Act from refusing to accept any type of contaminated soil.

[am. B.C. Regs. 322/2004 and 324/2004, s. 42; 184/2016, s. 3; 253/2016, s. 10.]

Application for a contaminated soil relocation agreement

43 (1) If a contaminated soil relocation agreement is required under section 55 of the Act, an application must be made using the form set out in Schedule 8.

(2) A director may require that an application described in subsection (1) for relocating soil from a contaminated site that is classified under a director's protocol as a low or moderate risk site include a report and the recommendation of an approved professional that the application be approved.

(3) If the director does not impose a requirement under subsection (2), the application may include a report and the recommendation of an approved professional in respect of whether the application should be approved.

(4) If a director rejects the recommendation of an approved professional provided under subsection (2) or (3), the director, within 15 days of the rejection, must provide written reasons to

(a) the applicant, and

(b) the professional association, in the Province, of which the approved professional is a member.

(5) If a contaminated soil relocation agreement is for the relocation of soil that is contaminated with a substance set out in Part 3 of Schedule 3.1 but in respect of which a standard is not specified in that Part, the standards and procedures set out in section 18, or section 18.1 if a receiving site is an environmental management area, apply to the applicant in the same manner as if the receiving site were a contaminated site.

[am. B.C. Regs. 17/2002, s. 9; 322/2004 and 324/2004, s. 43; 253/2016, s. 11; 11/2019, s. 7.]

Conditions pertaining to a contaminated soil relocation agreement

44 Before soil relocation begins in accordance with a contaminated soil relocation agreement, the applicant under section 43 must

(a) ensure that a copy of the notice from a director as required by section 55 (9) of the Act has been received by

(i) the municipality from which the soil is removed, and

(ii) the municipality in which the receiving site is situated, or

(b) wait at least 4 business days from the time of receiving the approved contaminated soil relocation agreement before moving any contaminated soil.

[am. B.C. Regs. 17/2002, s. 10; 322/2004 and 324/2004, s. 44.]

45 and **46** Repealed. [B.C. Reg. 253/2016, s. 12.]

Standards for contaminated soil relocation

46.1 (1) The relocation of soil from a source site to a receiving site requires a contaminated soil relocation agreement if the soil that is or will be relocated is contaminated by having any substance with a concentration that, subject to subsections (2) and (3), exceeds the following numerical standards, prescribed for the purposes of section 55 (3) of the Act, for either soil or vapour:

(a) in respect of the land use of the receiving site, the lowest value of the soil standards set out in Part 1, 2 or 3, as applicable, of Schedule 3.1 of this regulation;

(b) in respect of the land use, or other use, of the receiving site, the lowest value of the vapour standards set out in Schedule 3.3 of this regulation.

(2) As an exception to subsection (1), if contaminated soil has any substance with a concentration that exceeds a soil standard protective of groundwater in respect of the land use of the receiving site set out in Part 1 of Schedule 3.1 of this regulation, the numerical standards for soil protective of groundwater are not to be considered exceeded if either of the following applies:

(a) the site-specific soil standard protective of groundwater, derived in accordance with a director's protocol, is not exceeded;

(b) the water standard for groundwater set out in Schedule 3.2 of this regulation, based on the concentration resulting from a leachate test conducted in accordance with the director's protocol, is not exceeded.

(3) As an exception to subsection (1), numerical standards are not to be considered exceeded for the purposes of that subsection if either of the following applies:

(a) in respect of the numerical standards for soil, the background concentration in the soil of the receiving site, as determined in accordance with the director's protocol, is not exceeded;

(b) in respect of the numerical standards for soil or vapour, a director's interim standard for soil or vapour, as applicable, is satisfied.

(4) If the prescribed risk-based standards referred to in subsection (5) are met after the deposit of the relocated contaminated soil, the quality of the soil at the receiving site is suitable for the use intended.

(5) In respect of a background risk estimate, or a background risk-based concentration, for a receiving site, the risk-based standards prescribed for the purposes of section 55 (3) (a) of the Act are those set out in

(a) section 18 of this regulation, or

(b) section 18.1 of this regulation, if the receiving site is an environmental management area.

[en. B.C. Reg. 253/2016, s. 13, as am. by B.C. Reg. 196/2017, s. 2; am. B.C. Reg. 13/2019, s. 8.]

Procedures for contaminated soil relocation

46.2 For the purposes of section 55 (3) of the Act, the following procedures, if required by the director, are prescribed in respect of the relocation of soil under a contaminated soil relocation agreement:

(a) testing, in accordance with a director's protocol, the leachate from the soil to be relocated to determine whether the leachate from the soil contains a substance with a concentration that exceeds

(i) the water quality standards applicable to the receiving site set out in Schedule 3.2 of this regulation,

(ii) the site-specific numerical water standard of the receiving site, or

(iii) a risk-based concentration for water at the receiving site;

(b) if risk-based standards are applied at the receiving site, the following procedures:

(i) monitoring impacts of the substances in the relocated soil;

(ii) inspecting and maintaining works considered necessary to manage contamination at the receiving site and to protect human health or the environment;

(iii) site registry notations;

(iv) preparation and registration of a covenant under section 219 of the *Land Title Act*.

[en. B.C. Reg. 253/2016, s. 13, as am. by B.C. Reg. 196/2017, s. 2.]

PART 9 – REMEDIATION PLAN APPROVAL AND COMPLETION

Approval in principle

47 (1) A responsible person may apply for an approval in principle of a proposed remediation plan under section 53 (1.1) of the Act by submitting a request in writing to a director and attaching or ensuring the director already has

(a) copies of any preliminary and detailed site investigation reports prepared for the site,

(b) copies of any other site investigation and assessment reports prepared for the site, and

(c) the proposed remediation plan for which the approval in principle is sought.

(1.1) A responsible person making an application described in subsection (1) or (4) respecting a site classified under a director's protocol as a low or moderate risk site must specify in writing whether the application shall be processed

(a) in the manner for low or moderate risk sites, or

(b) in the manner for medium, intermediate or high risk sites.

(1.2) A responsible person making an application described in subsection (1) or (4) respecting a site classified under a director's protocol as a medium, intermediate or high risk site, or not classified under a director's protocol, may specify in writing that the application be processed in the manner for low or moderate risk sites.

(1.3) A director may reject an application for which a written specification is made under subsection (1.1) (a) or (1.2) if the director is satisfied that, for the likely human health and environmental risks to be properly assessed, a site covered by the application must be processed in the manner for a medium, intermediate or high risk site before a decision can properly be made whether or not to issue an approval in principle under section 53 (1.1) of the Act.

(1.4) A director may require that an application for an approval in principle in relation to a contaminated site, including an environmental management area, that is classified under a director's protocol as a low or moderate risk site include a report and the recommendation of an approved professional that the application be approved.

(1.41) If the director does not impose a requirement under subsection (1.4), the application may include a report and the recommendation of an approved professional in respect of whether the application should be approved and, if so, section 49.1 applies.

(1.5) If the director rejects the recommendation of an approved professional provided under subsection (1.4) or (1.41), the director, within 15 days of the rejection, must provide written reasons to

(a) the applicant, and

(b) the professional association, in the Province, of which the approved professional is a member.

(2) Before issuing an approval in principle under section 53 (1.1) of the Act, a director may request any additional information and reports the director considers necessary to assess whether the standards, criteria or conditions

prescribed in section 17, 18 or 18.1 of this regulation are likely to be complied with when the proposed remediation plan has been implemented.

(3) When issuing an approval in principle under section 53 (1.1) of the Act, a director may specify conditions for any or all of the following:

(a) implementing some or all of the activities described in a proposed remediation plan;

(b) risk assessment and risk management measures which may be required for part or all of a site for any reason;

(c) preparation, registration, and criteria for final discharge of a covenant under section 219 of the *Land Title Act* as may be required under section 48;

(d) carrying out confirmatory sampling and analysis after treatment or removal of contamination;

(e) testing and monitoring to evaluate the quality and performance of any remediation measures;

(f) any financial security required by the director in accordance with section 48;

(g) any actions which the director could require in a permit under section 14 of the Act.

(4) A responsible person may apply under subsection (1) for approval in principle of a wide area remediation plan.

(5) A director may issue an approval in principle for a wide area remediation plan if the remediation plan complies with all the following:

(a) the goal of the plan is to satisfy the applicable criteria, standards or conditions prescribed in this regulation;

(b) environmental risks are addressed in the plan to the satisfaction of the director;

(c) the plan provides for the monitoring and assessment of public health and environmental parameters the director considers appropriate for evaluating progress in satisfying the applicable criteria, standards or conditions in relation to the contaminants specified in the plan.

(6) An approval in principle for a remediation plan issued under this section is a permit within the meaning of the Act for any facility which

(a) is located on the site to which the remediation plan applies,

(b) is specifically identified in the remediation plan, and

(c) is used to manage any contamination which is located on the site for which the remediation plan applies.

(7) In relation to an application for an approval in principle described in subsection (6), the Public Notification Regulation does not apply with respect to the facility.

[am. B.C. Regs. 244/99, s. 11; 322/2004 and 324/2004, s. 47; 343/2008, s. 4; 184/2016, s. 4; 11/2019, s. 9; 13/2019, s. 10.]

Covenants and financial security – general principles

48 (1) A director may require that a covenant be registered under section 219 of the *Land Title Act* for the purpose of any or all of

(a) setting conditions regarding works, and their inspection and maintenance at a site, considered necessary to secure the contamination at the site and to protect human health or the environment,

(b) setting conditions for restricting disturbance of soils, or preventing a changed use of a site, which would invalidate a risk assessment and potentially increase exposure of human and environmental receptors to site contamination,

(c) specifying requirements to monitor for movement or impacts of contamination, and

(d) indemnifying the Crown or its agents or employees from losses, charges, actions or suits related to contamination remaining at the site, if these purposes are unlikely to be satisfactorily met by the entry of notations in the site registry.

(2) A person may request that a director have a covenant registered under the authority of subsection (1) discharged if the person believes that the conditions which gave rise to the covenant no longer exist or have been complied with.

(3) A director must have a covenant registered under the authority of subsection (1) discharged when

(a) remediation has been carried out in accordance with the numerical standards for remediation set out in section 17, and

(b) the director issues a certificate of compliance for the remediation referred to in paragraph (a).

(4) A director may require financial security if

(a) a significant risk could arise from conditions at a contaminated site because

(i) the site is left in an unremediated or partially remediated state, or

(ii) the site is remediated but requires ongoing management and monitoring because contamination is left at the site, and

(b) a covenant under section 219 of the *Land Title Act* is, in the opinion of the director, unlikely to be an effective means to ensure that necessary remediation is carried out at the site.

(5) The financial security required by a director under subsection (4) may be for the purpose of any or all of the following:

(a) ensuring that a responsible person completes remediation or guarantees performance to the satisfaction of the director;

(b) providing funds to further treat, remove or otherwise manage contamination;

(c) complying with the applicable legislation and financial management and operating policies of British Columbia.

[am. B.C. Regs. 322/2004 and 324/2004, s. 48.]

Requests for certificates

49 (1) A person may apply for a certificate of compliance under section 53 (3) of the Act by submitting a request in writing to a director.

(2) In support of the application referred to in subsection (1), the person requesting the certificate of compliance must provide to the director the reports described in paragraphs (a) and (b) and ensure that the director has information on the items described in paragraphs (c) and (d):

(a) preliminary and detailed site investigation reports;

(b) a confirmation of remediation report which describes sampling and analyses carried out after remediation of the contamination including

(i) a description of sampling locations and methods used,

(ii) a schedule of sampling conducted, and

(iii) a summary and evaluation of results of field observations and of field and laboratory analyses of samples;

(c) compliance with all conditions set by a director under section 47 (3) if an approval in principle was issued prior to remediation;

(d) the quality and performance of remediation measures on completion of remediation, including compliance with the remediation standards, criteria or conditions prescribed in this regulation.

(3) A person making an application described in subsection (1) respecting a site classified under a director's protocol as a low or moderate risk site must specify in writing whether the application shall be processed

(a) in the manner for low or moderate risk sites, or

(b) in the manner for medium, intermediate or high risk sites.

(4) A person making an application described in subsection (1) respecting a site classified under a director's protocol as a medium, intermediate or high risk site, or not classified under a director's protocol, may specify in writing that the application be processed in the manner for low or moderate risk sites.

(5) A director may reject an application for which a written specification is made under subsection (3) (a) or (4) if the director is satisfied that, for the likely human health and environmental risks to be properly assessed, a site covered by the application must be processed in the manner for a medium, intermediate or high

risk site before a decision can properly be made whether or not to issue a certificate under section 53 (3) of the Act.

(6) A director may require that an application described in subsection (1) for a certificate of compliance in relation to a contaminated site that is classified under a director's protocol as a low or moderate risk site include a report and the recommendation of an approved professional that the application be approved.

(7) If the director does not impose a requirement under subsection (6), the application may include a report and the recommendation of an approved professional in respect of whether the application should be approved and, if so, section 49.1 applies.

(8) If a director rejects the recommendation of an approved professional provided under subsection (6) or (7), the director, within 15 days of the rejection, must provide written reasons to

(a) the applicant, and

(b) the professional association, in the Province, of which the approved professional is a member.

[am. B.C. Regs. 244/99, s. 12; 17/2002, s. 11; 322/2004 and 324/2004, s. 49.]

Director may consider recommendations of approved professionals

49.1 For the purpose of determining the manner and extent of the review that must be undertaken of the work on which an application referred to in section 15 (6), 43 (3), 47 (1.41) or 49 (7), a director may consider whether the application includes the recommendation of an approved professional in respect of the decision requested in the application.

[en. B.C. Regs. 322/2004 and 324/2004, s. 50.]

Financial security as a condition of a certificate

50 (1) If financial security is a condition of an approval in principle for a remediation plan for a particular site, all terms of the security requirement must be met before a director may issue a certificate of compliance for that site.

(2) If a director requires financial security in accordance with section 53 (3) (d) of the Act and section 48 (4) of this regulation, before the director issues a certificate of compliance, a responsible person must

(a) provide, to the director, satisfactory evidence of the availability of the required security, and

(b) provide any required contractual agreement relating to the terms and conditions of the security, signed by the responsible person.

[am. B.C. Regs. 322/2004 and 324/2004, s. 51.]

Approvals in principle and certificates for part of a site

51 If a responsible person applies for and a director issues an approval in principle or a certificate of compliance for a part of a contaminated site as authorized by section 53 (6) of the Act, the director must

(a) provide to the registrar information respecting the part of the site to which the approval in principle or certificate of compliance applies, and

(b) in accordance with section 48 of this regulation, consider whether a covenant under section 219 of the *Land Title Act* or financial security is required relative to one or more parts of the site not remediated.

[en. B.C. Regs. 322/2004 and 324/2004, s. 52.]

Duties of director respecting approvals in principle and certificates of compliance

52 (1) A director need not consider an application for an approval in principle or certificate of compliance until all required information has been provided to the director for review.

(2) A director must send a copy of an approval in principle or certificate of compliance issued by the director in respect of a site to the municipality in which the subject contaminated site is located.

[en. B.C. Regs. 322/2004 and 324/2004, s. 53.]

PART 10

53 Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 54.]

PART 11 – ALLOCATION PANEL

Allocation panel procedures

54 (1) If a director establishes an allocation panel to provide an opinion under section 49 (2) of the Act, the panel

(a) must consider written and oral information submitted to it by the person who requested that a panel be established, and

(b) may consider other written and oral information submitted to it by any other person.

(2) Subsection (1) applies only if the information pertains to one or more of the factors described in section 49 (3) of the Act.

(3) An allocation panel established under section 49 (2) of the Act must give advance notice of its planned deliberations to any person who the panel believes, on reasonable grounds, may be a responsible person.

(4) An allocation panel established under section 49 (2) of the Act may determine its own procedures to be used in rendering an opinion, but the procedures must not conflict with a director's protocol.

(5) A person who wishes to withdraw a request to obtain an opinion from an allocation panel must notify the director in writing.

(6) The director who receives the notice referred to in subsection (5) may request that the allocation panel render an opinion on the basis of any information submitted to it before the withdrawal of the request.

(7) A person who withdraws a request to obtain an opinion from an allocation panel is liable for the panel fees and costs incurred by the panel before the time of receipt by the director of the notice referred to in subsection (5).

(8) An allocation panel must, when rendering an opinion, state the information relied on to render the opinion, including the extent of information and facts available to it and any significant deficiencies in the information provided to it.

[am. B.C. Regs. 322/2004 and 324/2004, s. 55.]

PART 12 – PUBLIC CONSULTATION AND REVIEW

Director's powers

55 (1) When ordering public consultation or a review under section 52 (1) of the Act, a director may require a person who proposes to carry out remediation to do any or all of the following:

(a) post a notice of the proposed remediation, in a manner acceptable to the director, in a location visible to the public on the site or property which is the subject of the proposed remediation;

(b) publish, as specified by the director, in 2 or more editions of one or more newspapers with circulation local to the subject site, a notice of availability of information respecting

(i) site investigations,

(ii) evaluation of remediation alternatives,

(iii) remediation plans,

(iv) site registry identification numbers, and

(v) any other documentation as may be specified by the director;

(c) serve, on any person who, in the opinion of the director, may be adversely affected by the proposed remediation, a notice of availability of information respecting

(i) site investigations,

(ii) evaluation of remediation alternatives,

(iii) remediation plans, and

(iv) any other documentation that may be specified by the director;

(d) undertake other notification requirements specified by the director;

(e) hold public information meetings and use other public consultation methods, including providing public access to reports and studies at local public libraries, that the director specifies.

(2) A director may, when considering the need for public consultation or review of remediation of a contaminated site under section 52 (2) of the Act, require a person who proposes to remediate the contaminated site to submit a report to the director which describes past and proposed public consultations regarding the contaminated site under consideration.

(3) After issuance of an approval in principle or a certificate of compliance, a director must not order public consultation with respect to the remediation which is the subject of the approval in principle or certificate of compliance, but this does not prevent the director from ordering the person to provide information to the public about the remediation.

[am. B.C. Regs. 322/2004 and 324/2004, s. 56.]

PART 13 – INDEPENDENT REMEDIATION PROCEDURES

56 Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 57.]

Notifications for independent remediation

57 (1) A responsible person who carries out independent remediation of a site pursuant to section 54 (1) of the Act must, if the responsible person knows that one or more substances has migrated or is likely to have migrated to a neighbouring site and is or is likely causing contamination of the neighbouring site, provide the notification described in subsection (1.1).

(1.1) The responsible person must provide written notification to the person or persons who own the neighbouring site and a copy of the notification to a director, within 15 days after the responsible person becomes aware of the migration or likely migration of each substance to the neighbouring site, giving

(a) the name and address of the person or persons who own the site or sites to be remediated,

(b) the name, address and telephone number of the person to contact regarding the remediation activities to be undertaken at the site, and

(c) a general description of the nature of the migration or likely migration of each substance.

(1.2) A person who has a duty to provide notification to a director of commencement of independent remediation under section 54 (2) (a) of the Act must provide written notice to a director within 3 days after the commencement of any remediation activity involving handling, management or treatment of

contamination, other than activity which has the purpose of obtaining results for investigation purposes, giving

(a) the legal description, including parcel identifier numbers and latitudinal and longitudinal references, and civic address of the parcel or parcels of land at the site to be remediated,

(b) the name and address of the person or persons who own the parcel or parcels of land at the site to be remediated,

(c) the name, address and telephone number of the person to contact regarding the remediation activities to be undertaken at the site, and

(d) a general description of the nature of the contaminated site and the remediation being conducted.

(2) In the case of independent remediation arising from emergency response to a spill of a polluting substance, a person is exempt from the requirements of subsection (1.2) if the spill has been reported in accordance with the requirements of section 79 of the Act and the Spill Reporting Regulation.

[am. B.C. Regs. 17/2002, s. 13; 322/2004 and 324/2004, s. 58; 201/2007, s. 5.]

PART 14 – SITE INVESTIGATIONS

Preliminary site investigations

58 (1) Subject to subsections (3) and (4) and subject to the terms and conditions of a remediation order, an order to investigate under section 41 of the Act or a pollution abatement order, a preliminary site investigation consists of the following 2 stages:

(a) a first stage which includes

(i) a review of site historical use and records, including a search of the site registry, to determine current and past activities or uses, accidents and spills, and practices and management relating to potential contamination at the site and neighbouring sites,

(ii) one or more site reconnaissance visits with visual inspection of buildings, property, equipment, land, surface water and biota for indicators or presence of contamination,

(iii) interviews with current or former owners, occupants, neighbours, directors, employees and government officials who can, with reasonable attempts, be contacted respecting information on activities which may have caused contamination,

(iv) any information as to which substances on the site may cause contamination, and

(v) activities described in a director's protocol,

but does not include sampling of relevant environmental media or investigation of subsurface conditions;

(b) a second stage which allows determination of the general location and degree of any contamination and which includes

(i) sampling of relevant environmental media,

(ii) laboratory or field instrumental analysis of sampled and selected environmental media for substances which may cause or threaten to cause contamination,

(iii) other intrusive or nonintrusive methods of investigating subsurface conditions,

(iv) assessment of substance concentrations relative to the criteria, standards and conditions prescribed in this regulation, and

(v) activities described in a director's protocol.

(2) A person who carries out a preliminary site investigation may proceed sequentially through the 2 stages described in subsection (1) (a) and (b) or may proceed in a manner which combines the 2 stages.

(3) A person who has been ordered to undertake a preliminary site investigation and who has proceeded using a staged approach in accordance with subsection (1) may

(a) present to a director a report of the first stage of a preliminary site investigation, and

(b) seek consent of the director that the second stage of the preliminary site investigation is not required.

(4) A person who has been ordered to undertake a preliminary site investigation is not required to comply with the terms of the order if the person obtains the consent of a director to prepare a detailed site investigation which addresses the subject matter of the ordered preliminary site investigation.

(5) A report of a preliminary site investigation prepared under section 41 of the Act must do all of the following:

(a) indicate whether the investigation proceeded in stages as described in subsection (1) and, if so, the objectives, methods and procedures which were used in each stage;

(b) describe the relationship of the 2 stages and, in particular, explain how the methods of investigation and findings of the first stage were used to design and carry out the second stage;

(c) provide a compilation and presentation of all field observations, field measurement and analytical data and laboratory analytical data;

(d) provide interpretation and evaluation of the data in a manner which clearly shows

(i) the contamination in soil, groundwater, sediments and surface water in relation to the criteria, standards and conditions prescribed in this regulation, and

(ii) the general location and degree of contamination, including migration which may have occurred to adjoining properties.

[am. B.C. Regs. 244/99, s. 15; 322/2004 and 324/2004, s. 59; 184/2016, s. 5.]

Detailed site investigations

59 (1) A person who is ordered to undertake a detailed site investigation under section 41 (1) of the Act must do one of the following:

(a) carry out a preliminary site investigation before the detailed site investigation;

(b) conduct a detailed site investigation in a manner which ensures that the information referred to in section 58 (1) is obtained.

(2) A detailed site investigation must provide information necessary for conducting a risk assessment, if applicable, and for developing a remediation plan, and must, without limitation, include procedures to

(a) identify which substances may cause or threaten to cause adverse effects and provide any applicable information on their form,

(b) identify the specific areas, depths and degree of contamination on the site including areas and extent of migration if applicable, and

(c) evaluate contamination relative to the standards in this regulation.

(3) A report of a detailed site investigation prepared under section 41 (1) of the Act must do all of the following:

(a) describe the relationship of the detailed site investigation and any prior preliminary site investigation and, in particular, explain how the methods of investigation and findings of the preliminary site investigation were used to design and carry out the detailed site investigation;

(b) provide a compilation and presentation of all field observations, field measurement and analytical data and laboratory analytical data;

(c) provide an interpretation and evaluation of the data in a manner which clearly shows

(i) the contamination in soil, groundwater, sediments or surface water in relation to the criteria, standards and conditions prescribed in this regulation, and

(ii) specific areas, depths and degree of contamination, including migration which may have occurred to adjoining properties.

[am. B.C. Regs. 244/99, s. 16; 322/2004 and 324/2004, s. 60; 184/2016, s. 6.]

Summary of site investigations and remediation plans

60 Any preliminary site investigation report, detailed site investigation report or remediation plan submitted to a director for approval must include a summary of the report or plan for the purpose of entry on the site registry in a format which may be specified in a director's protocol.

[am. B.C. Regs. 322/2004 and 324/2004, s. 61.]

Notification of neighbouring site owners after site investigations

60.1 (1) A responsible person who carries out a site investigation that discloses that one or more substances has migrated or is likely to have migrated to a neighbouring site and is or is likely causing contamination of the neighbouring site must provide written notification described in subsection (2).

(2) The responsible person for the investigated site must provide written notification to the person or persons who own the neighbouring site and a copy of the notification to the director, within 15 days after the responsible person becomes aware of the migration or likely migration of each substance to the neighbouring site, giving

(a) the name and address of the person or persons who own the investigated site,

(b) the name, address and telephone number of the person to contact regarding the investigation, and

(c) a general description of the nature of the migration or likely migration of each substance.

[en. B.C. Reg. 17/2002, s. 14; am. B.C. Regs. 322/2004 and 324/2004, s. 62.]

PART 15 – ORPHAN SITES

Criteria for determining orphan sites

61 A director may determine that a contaminated site is an orphan site if the contaminated site is a site for which

(a) a responsible person cannot be found or is not willing or financially able to carry out remediation in a time frame specified by a director, or

(b) a government body has become the owner subsequent to the failure of the former owner or other responsible person to comply with a requirement to carry out remediation at the site.

[am. B.C. Regs. 322/2004 and 324/2004, s. 63.]

High risk orphan sites

62 For the purposes of section 58 (1) (b) of the Act, the determination that an orphan site is a high risk orphan site must be made in accordance with a classification system in a director's protocol.

[en. B.C. Regs. 322/2004 and 324/2004, s. 64.]

PART 16 – PROFESSIONAL STATEMENTS

Professional statements

63 A director need not consider an application for

(a) an approval in principle,

(b) a certificate of compliance, or

(c) Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 65.]

(d) an approval of a preliminary or detailed site investigation

until the applicant or the applicant's agent provides a written signed statement that

(e) any documentation in support of an application referred to in paragraphs (a) to (d) has been prepared in accordance with all requirements in the Act and the regulations, and

(f) certifies that the person signing the statement has demonstrable experience in remediation of the type of contamination at the site for which the statement applies and is familiar with the remediation carried out on the site.

[am. B.C. Regs. 322/2004 and 324/2004, s. 65.]

PART 17

64 to **66** Repealed. [B.C. Regs. 322/2004 and 324/2004, s. 67.]

PART 18 – DIRECTOR'S PROTOCOLS

Director's protocols

67 For the purposes of protocols established under section 64 (1) of the Act, a director may establish protocols in respect of the following matters:

(a) establishing the form of a summary of site condition;

(b) establishing procedures for defining and determining the boundaries of a site;

(c) establishing procedures for determining

(i) whether multiple land uses apply at a site, and

(ii) if multiple lands uses apply at a site, which land uses apply;

(d) establishing procedures for testing or analyzing soil, water or other media to estimate the leachate from substances;

(e) developing soil, sediment, water or vapour numerical standards for a substance.

[en. B.C. Reg. 239/2007, s. 4; am. B.C. Regs. 343/2008, s. 9; 253/2016, s. 14.]

PART 19 – MISCELLANEOUS

Review of numerical standards

68 (1) For the purpose of prescribing substances and risk-based or numerical criteria, standards and conditions under section 63 (1) (n) of the Act, the minister may, within 5 years of this section coming into force and once every 5 years after that

date, consider the recommendations by a director made under subsection (2) of this section and conduct a review of the numerical standards.

(2) A review of numerical standards is to be developed in accordance with section 64 (2) (n) of the Act by a director for the purpose of making recommendations for consideration by the minister.

[en. B.C. Reg. 253/2016, s. 15.]

Manner of publication

69 For the purposes of section 63 (1) (r) of the Act, a protocol referred to in section 64 (2) of the Act must be published by being published on a website maintained by or on behalf of the government.

[en. B.C. Reg. 253/2016, s. 15.]

PART 20 – TRANSITION

Transition – matters in progress

70 In respect of matters subject to approval, determination or other consideration by a director under this regulation, if a person has submitted the required documentation in substantial compliance with this regulation before November 1, 2017, the director may apply the numerical criteria, standards and conditions that were in effect immediately before that date.

[en. B.C. Reg. 253/2016, s. 15.]

Transition – wide area site

71 If a designation by the director of a site as a wide area site with respect to specified substances and specified sources is in effect immediately before this section comes into force,

(a) the site is deemed to be designated by the director as an environmental management area with respect to those substances and sources, and

(b) a reference to the site as a wide area site in a document or other record made or issued under the Act or this regulation before this section comes into force is deemed to be a reference to the site as an environmental management area.

[en. B.C. Reg. 13/2019, s. 11.]

SCHEDULE 1

[am. B.C. Regs. 17/2002, ss. 15 to 19; 343/2008, s. 10.]

SITE PROFILE

All Information Must be Provided and All Questions Answered

I. CONTACT IDENTIFICATION

A. Name of Site Owner:

Last ..... First ..... Middle Initial(s) ..... (and / or, if applicable)

Company .....

Owner's Civic Address .....

City ..... Province/State .....

Country ..... Postal Code/ZIP .....

B. Person Completing Site Profile *Leave blank if same as above*:

Last ..... First..... Middle Initial(s) ..... (and / or, if applicable)

Company .....

C. Person to Contact Regarding the Site Profile:

Last ..... First..... Middle Initial(s) ..... (and / or, if applicable)

Company .....

Mailing Address .....

City ..... Province/State .....

Country ..... Postal Code/ZIP .....

Telephone (.....) ..... -..... Fax (.....) ..... -.....

II. SITE IDENTIFICATION

Please attach a site location map

All Property:

Coordinates (using the North American Datum 1983 convention) for the centre of the site:
Latitude: Degrees ..... Minutes ..... Seconds .....
Longitude: Degrees ..... Minutes ..... Seconds .....

Please attach a map of appropriate scale showing the boundaries of the site.

For Legally Titled, Registered Property

Site Street Address .....

City ..... Postal Code .....

PID numbers and associated legal descriptions. *Attach an additional sheet if necessary*.

PID	Legal Description
.....	.....
.....	.....
.....	.....
.....	.....

Total number of titled parcels represented by this site profile is: .....

For Untitled Crown Land

PIN numbers and associated land description. *Attach an additional sheet if necessary.*

PIN	Land Description
.....	.....
.....	.....
.....	.....

.....

Total number of untitled, crown land parcels represented by this site profile is: .....

(and, if available)

Crown land file numbers. *Attach an additional sheet if necessary.*

III. COMMERCIAL AND INDUSTRIAL PURPOSES OR ACTIVITIES

Please indicate below, in the format of the example provided, which of the industrial and commercial purposes and activities from Schedule 2 have occurred or are occurring on this site.

EXAMPLE:

Schedule 2 Reference	**Description**
E1	appliance, equipment or engine repair, reconditioning, cleaning or salvage
F10	solvent manufacturing or wholesale bulk storage

.....

Please print legibly. Attach an additional sheet if necessary

Schedule 2 Reference	**Description**
.....	
.....	
.....	
.....	

IV. AREAS OF POTENTIAL CONCERN

	Is there currently or to the best of your knowledge has there previously been on the site any (please mark the appropriate column opposite the question):	YES	NO
A	Petroleum, solvent or other polluting substance spills to the environment greater than 100 litres?		
B	Residue left after removal of piled materials such as chemicals, coal, ore, smelter slag, air quality control system baghouse dust?		
C	Discarded barrels, drums or tanks?		
D	Contamination resulting from migration of substances from other properties?		

V. FILL MATERIALS

	I**s there currently or to the best of your knowledge has there previously been on the site any deposit of** (please mark the appropriate column opposite the question):	YES	NO
A	Fill dirt, soil, gravel, sand or like materials from a contaminated site or from a source used for any of the activities listed under Schedule 2?		
B	Discarded or waste granular materials such as sand blasting grit, asphalt paving or roofing material, spent foundry casting sands, mine ore, waste rock or float?		
C	Dredged sediments, or sediments and debris materials originating from locations adjacent to foreshore industrial activities, or municipal sanitary or stormwater discharges?		

VI. WASTE DISPOSAL

	Is there currently or to the best of your knowledge has there previously been on the site any landfilling, deposit, spillage or dumping of the following materials (please mark the appropriate column opposite the question):	YES	NO
A	Materials such as household garbage, mixed municipal refuse, or demolition debris?		
B	Waste or byproducts such as tank bottoms, residues, sludge, or flocculation precipitates from industrial processes or wastewater treatment?		
C	Waste products from smelting or mining activities, such as smelter slag, mine tailings, or cull materials from coal processing?		
D	Waste products from natural gas and oil well drilling activities, such as drilling fluids and muds?		
E	Waste products from photographic developing or finishing laboratories; asphalt tar manufacturing; boilers, incinerators or other thermal facilities (e.g. ash); appliance, small equipment or engine repair or salvage; dry cleaning operations (e.g. solvents); or from the cleaning or repair of parts of boats, ships, barges, automobiles or trucks, including sandblasting grit or paint scrapings?		

VII. TANKS OR CONTAINERS USED OR STORED, OTHER THAN TANKS USED FOR RESIDENTIAL HEATING FUEL

	Are there currently or to the best of your knowledge have there been previously on the site any (please mark the appropriate column opposite the question):	YES	NO
A	Underground fuel or chemical storage tanks other than storage tanks for compressed gases?		
B	Above ground fuel or chemical storage tanks other than storage tanks for compressed gases?		

VIII. HAZARDOUS WASTES OR HAZARDOUS SUBSTANCES

	Are there currently or to the best of your knowledge have there been previously on the site any (please mark the appropriate column opposite the question):	YES	NO
A	PCB-containing electrical transformers or capacitors either at grade, attached above ground to poles, located within buildings, or stored?		
B	Waste asbestos or asbestos containing materials such as pipe wrapping, blown-in insulation or panelling buried?		

C	Paints, solvents, mineral spirits or waste pest control products or pest control product containers stored in volumes greater than 205 litres?		

IX. LEGAL OR REGULATORY ACTIONS OR CONSTRAINTS

	To the best of your knowledge are there currently any of the following pertaining to the site (please mark the appropriate column opposite the question):	YES	NO
A	Government orders or other notifications pertaining to environmental conditions or quality of soil, water, groundwater or other environmental media?		
B	Liens to recover costs, restrictive covenants on land use, or other charges or encumbrances, stemming from contaminants or wastes remaining onsite or from other environmental conditions?		
C	Government notifications relating to past or recurring environmental violations at the site or any facility located on the site?		

X. ADDITIONAL COMMENTS AND EXPLANATIONS

(Note 1: Please list any past or present government orders, permits, approvals, certificates and notifications pertaining to the environmental condition, use or quality of soil, surface water, groundwater or biota at the site.

Note 2: If completed by a consultant, receiver or trustee, please indicate the type and degree of access to information used to complete this site profile):

XI. SIGNATURES

The person completing the site profile states that the above information is true, based on the person's current knowledge as of the date completed.

....

Signature of person completing site profile Date completed: (YY-MM-DD)

SCHEDULE 1.1

[en. B.C. Reg. 13/2019, s. 12.]

SUMMARY OF SITE CONDITION

Purpose of this Summary of Site Condition

This Summary of Site Condition will serve several purposes. It will provide the Ministry of Environment and Climate Change Strategy (the ministry) with a summary of key information that will be used to understand the status of investigations and remediation, the nature and extent of remediation that is proposed or has been undertaken, further work that will be required, or closure documentation requested that is authorized by legislation and regulations in B.C. The Summary of Site Condition will also provide information to persons with an interest in investigations and management of contaminants on or adjacent to a property or properties that are considered a site.

The information contained in this Summary of Site Condition is provided by or on behalf of the ministry to assist individuals to become familiar with conditions and issues at a site for which contaminant investigations and / or remediation has been carried out and reviewed under the guidance of the British Columbia Contaminated Sites Regulation (CSR), the Hazardous Waste Regulation (HWR), and the *Environmental Management Act* (EMA).

It is emphasized that this is a summary only and should in no cases, be the sole basis for important decisions about the site. Those with an interest in contaminant issues and the status of the site should seek more complete technical information as contained in site investigation, risk assessment, remediation plan and confirmation of remediation reports prepared by and signed by appropriately qualified individuals. Firms and individuals that rely on the information contained herein do so entirely at their own risk.

Notes and Instructions

A Summary of Site Condition is to be completed by the Approved Professional(s) making submission to the ministry with application for a regulatory instrument (e.g. Determination, Approval in Principle, Contaminated Soil Relocation Agreement or Certificate of Compliance).

This Summary of Site Condition will provide ministry regulatory officials with much of the information on which they will evaluate the recommendation of an Approved Professional(s).

A separate Summary of Site Condition is required for each service request submitted for a site.

All applicable parts of this Summary of Site Condition and required attachments (e.g., site plan; site plan showing areas of potential environmental concern, and / or areas of environmental concern) must be completed and submitted or it will be returned and processing of any application(s) will be delayed.

If the Summary of Site Condition is to accompany a recommendation by an Approved Professional that a service be provided as described in section 7.1 of the Contaminated Sites Regulation, the following must also be submitted with the package:

- ☐ a completed Contaminated Sites Service Application form
- ☐ a contaminated sites legal instrument cover letter (hard copy and electronic version)
- ☐ a completed draft contaminated sites legal instrument
- ☐ the applicable fees
- ☐ a signed Summary of Site Condition (hard copy and electronic version with PDF format preferred)

Failure to accurately fill out the Summary of Site Condition may result in delays issuing the legal instrument.

Part 1: Cover Page

(To be completed by the Approved Professional)

Current Site Owner: (*Attach additional sheets with names and contact information for additional site owners as required*)	**Mailing Address:** Company Name: Address: City: Postal Code: Contact Name: Phone: Fax: E-mail:
Applicant *(If instrument is being applied for)* ☐ Same as above, or:	**Mailing Address:** Company Name: Address: City: Postal Code: Contact Name: Phone: Fax: E-mail:
Agent ☐ Same as applicant above, or:	**Mailing Address:** Company Name: Address: City: Postal Code: Contact Name: Phone: Fax: E-mail:
Approved Professional(s) (*If making a recommendation under the CSR or another submission*)	**Mailing Address:** Company Name: Address: City: Postal Code: Approved Professional Name: Phone: Fax: E-mail: Scope of review completed by Approved Professional: Company Name: Address: City: Postal Code: Approved Professional Name: Phone: Fax: E-mail: Scope of review completed by Approved Professional:

Reason for Completing this Summary	**Role of Approved Professional:**
☐ Recommendation is being made, or: ☐ This is a submission without a recommendation under the CSR:	Reviews: ☐ Stage 1 preliminary site investigation report (Stage 1 PSI) ☐ Stage 2 preliminary site investigation report (Stage 2 PSI) ☐ Detailed site investigation report (DSI) ☐ Background substance concentrations report ☐ Remediation plan without risk assessment report ☐ Remediation plan with risk assessment report ☐ Confirmation of remediation report (CoR) ☐ Quantitative human health or ecological risk assessment report ☐ Screening level risk assessment report ☐ Other *(please specify)* Recommendation(s) (*With Regulatory Instrument)*: ☐ Determination *(Determination)* ☐ Approval in Principle, numerical standards *AiP numerical standards)* ☐ Approval in Principle, risk-based standards *(AiP risk-based standards)* ☐ Contaminated Soil Relocation Agreement *(CSRA)* ☐ Certificate of Compliance, numerical standards *(CoC numerical standards)* ☐ Certificate of Compliance, risk-based standards *(CoC risk-based standards)* ☐ Other *(please specify)* Section 4 of the Summary of Site Condition does not need to be completed with the request for Certificate of Compliance where an Approval in Principle exists for the site provided that no new information has been obtained for the site applicable to this section of the form.

Part 2: Executive Summary

(To be completed by the Approved Professional(s) reviewing site investigation, risk assessment, remediation or confirmation of remediation reports)

Site Location: **(***The site and location plans are to be provided as Schedule A of the draft instrument.)*	
Subject Site:	
Civic Address(s):	
Site Common Name: *(if applicable)*	
Legal description(s) *or* metes and bounds: *(add additional pages if needed)*	
PID(s*)*: *(or PIN(s) if untitled Crown land)*	
Centre of site: *(using NAD 83 convention)* *(accurate to ± 0.5 second)*	Latitude: ____ degrees ____ min __.__ secs
	Longitude: ____ degrees ____ min __.__ secs
Offsite impacted Properties *or* Receiving Site:	☐ Offsite impacted property(s) – provide information for each ☐ Receiving site for Contaminated Soil Relocation Agreement ☐ Not Applicable
Civic Address(s):	
Site Common Name*:* *(if applicable)*	
Legal description(s) *or* metes and bounds (if a portion of a site): *(add additional pages if needed)*	
PID(s): (*or PIN(s) if untitled Crown land)*	
BC Site ID *(if applicable)*:	
Approximate Centre of site:	Latitude: ____ degrees ____ min ____ secs
(accurate to ± 0.5 second)	Longitude: ____ degrees ____ min ____ secs

Part 3: Document Summary

(List of all known site investigation, risk assessment (including screening level risk assessment), remediation plan and confirmation of remediation reports completed and directly supporting correspondence submitted (subject site and offsite impacted sites).

#	Document Title	Author / Company	Document Date

Part 4: Investigation Summary

4.1 Investigations Completed

		Yes	No	n/a
Stage 1 PSI	Completed?	☐	☐	☐
	Includes Stage 1 PSI information as listed in CSR S.58 and any current applicable ministry protocols, guidelines, checklists, etc.?	☐	☐	☐
Stage 2 PSI	Completed?	☐	☐	☐
	Includes Stage 2 PSI information as listed in CSR S.58 and any current applicable ministry protocols, guidelines, checklists, etc.?	☐	☐	☐
DSI	Completed?	☐	☐	☐
	Includes DSI information as listed in CSR S.59 and any current applicable ministry protocols, guidelines, checklists, etc.?	☐	☐	☐
Other Reports	Completed? *(Specify in Notes below)*	☐	☐	☐
	According to other guidelines? *(Provide explanation in notes below. Indicate how reports assist understanding of conditions and remediation.)*	☐	☐	☐
Notes:				

n/a – not applicable

If completed investigation reports are not adequate or if reports are titled differently or have a different scope than those listed above in accordance with the Contaminated Sites Regulation (i.e., PSI, DSI), complete Section 4.8 (Investigation or Interpretation Issues).

4.2 Site Conditions

Topography

Describe steepness and direction of slope and position of site in relation to surrounding land

Stratigraphy

Describe depth and thickness, grain size, etc. of typical stratigraphic components and note depth to cemented or very compact materials, bedrock / refusal, etc.

Hydrogeology

Describe groundwater levels, confining / semi-confining layers, flow direction and velocity

Surface Water Features

List name, direction and distance to nearest surface water bodies and the characteristics (e.g., relative size / flow) of the water body

Freshwater:

Marine waters:

4.3 Land Use

Location		Description of Current Land Use(s) / Activities
Onsite	Subject site	
Offsite	North	
	East	
	South	
	West	

Proposed land use of subject site: ☐ same as above or ☐ other (*please specify*)

4.4 Applicable Numerical Concentration Standards

(If more than one land or water use applies to the site, expand this section to specify additional land uses covered by the instrument, i.e. riparian areas, roadways, etc. Include a diagram to clearly show the areas with different standards)

Soil (CSR Schedule 3.1):

Property		**CSR Land Use**						
		AL	**PL**	**RL_{LD}**	**RL_{HD}**	**CL**	**IL**	**Other**
Subject site	Current	☐	☐	☐	☐	☐	☐	☐
	Proposed	☐	☐	☐	☐	☐	☐	☐
Receiving site *(if completed in support of a Contaminated Soil Relocation Agreement)*		☐	☐	☐	☐	☐	☐	☐
Offsite impacted property / management area		☐	☐	☐	☐	☐	☐	☐

If Other is specified above, please explain: *(WL_N, WL_R: applicable or excluded guidance, protocols or policies specific to the site)*

Water (CSR Schedule 3.2):

(Check all that apply)

	AW fresh	**AW marine**	**IW**	**LW**	**DW**	**No Water Use**
Groundwater (CSR Schedule 3.2)	☐	☐	☐	☐	☐	☐
	Ambient fresh	Ambient marine				
Surface Water (Ambient Guidelines and/or Criteria)	☐	☐	☐	☐	☐	

Vapour (CSR Schedule 3.3):

(Check all that apply)

	AL, PL, RL	**CL**	**IL**	**Parkade**	**Other**
Soil Vapour	☐	☐	☐	☐	☐

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

Sediment (CSR Schedule 3.4):

Type of Aquatic Life		Type of Habitat		
☐ Freshwater	☐ Marine/Estuarine	☐ Sensitive	☐ Typical	☐ Not applicable

4.5 APEC and PCOC Summary

(Not applicable for a receiving site in a Contaminated Soil Relocation Agreement)

Provide reference to a figure showing onsite and offsite areas of potential environmental concern (APEC) and contaminants of potential concern associated with each APEC: Report #___, Figure #___ Page #___

Area of Potential Environmental Concern (APEC)			**Check where analyses completed**					
#	**Description** *(describe location in relation to process source, waste, filling, land use or activity, etc. giving rise to APEC, and if APEC is primary due to soil or water contamination)*	**Potential Contaminant of Concern (PCOC)** *(indicate products, chemicals, waste type, etc. and / or analytical parameter)*	Soil	Sediment	Ground water	Surface Water	Vapour	Other (explain)
			☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐
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			☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐

Other (please explain):

APEC #	

4.6 AEC and Contaminant Summary

Stage 2 PSI - Provide reference to figure(s) showing the areas of environmental concern (AEC) and contaminants of concern associated with each AEC in onsite and offsite soil, water, sediment and/or vapour. Sample locations and corresponding analytical results shall be shown on each figure and in tabular form with reference to applicable standards:

Environmental medium_____ Report #___ Figure #___ Page #___
Environmental medium_____ Report #___ Figure #___ Page #___
Environmental medium_____ Report #___ Figure #___ Page #___

DSI – Provide references to figures (plan and section), with contours, showing the specific lateral and vertical distribution of each contaminant of concern in onsite and offsite soil, sediment, water and vapour. Sections shall be longitudinal and transverse with respect to groundwater flow and include physical conditions (e.g. stratigraphy, water table etc.). Sample locations with corresponding analytical results used to develop each figure shall be shown on the figure and in tabular form with reference to applicable standards:

Environmental medium_____ Report #___ Figure #___ Page #___
Environmental medium_____ Report #___ Figure #___ Page #___
Environmental medium_____ Report #___ Figure #___ Page #___

AEC / APEC # *(Use same #s as for APECs in Table above)*	**Contaminant of Concern**	**Medium** *(e.g., soil, groundwater, sediment, vapour, surface water, other)*	**Maximum Measured Concentration (indicate units)**	**Extent of Contamination**	
				Area (m^2)	**Depth Range (mbgs)**

Notes:

4.7 Offsite Migration

	Yes	No
Is there evidence that one or more substances has migrated or is likely to have migrated to a neighbouring site and is or is likely causing contamination of the neighbouring property?	☐	☐
Has any sampling occurred offsite for PCOCs in any media?	☐	☐
Have preferential pathways been assessed? (including assessment of all neighbouring underground utility rights-of-way)	☐	☐

If yes to the first question, complete the following:

There is evidence of ☐ historical, or ☐ current offsite transport of contaminants from the site in:

- ☐ groundwater;
- ☐ surface water;
- ☐ vapours; and/or
- ☐ other

Briefly describe the nature of and evidence for offsite migration (either known, suspected or potential)

The impacted offsite lands are categorized as:

- ☐ having a potable groundwater source;
- ☐ being aquatic habitat, as formally defined;
- ☐ agricultural lands
- ☐ wildlands
- ☐ residential or urban parklands
- ☐ commercial land
- ☐ industrial land

4.8 Investigation or Interpretation Issues to be Addressed

Identify any issues regarding investigations or interpretations if the PSI and DSI information may not satisfy the requirements of CSR Sections 58 and 59 and applicable protocols and guidance documents. Briefly describe how these deficiencies will be addressed (examples include destroyed wells, completion of detailed delineation following building demolition or other proposed work at a later stage of remediation).

Part 5: Remediation Summary

5.1 Remediation Reporting Summary

		Yes	No	n/a
Risk Assessment	Completed?	☐	☐	☐
	Includes quantitative human health and ecological risk assessment report information or screening level risk assessment per EMA, CSR and current applicable ministry protocols, guidelines, checklists?	☐	☐	☐
Remediation Plan	Completed?	☐	☐	☐
	Includes CSR specified information for a Remediation Plan *(see CSR S.1, 16, 47)* and current applicable ministry protocols, guidelines, checklists, etc.?	☐	☐	☐
Confirmation of Remediation	Completed?	☐	☐	☐
	Includes CSR specified information *(see CSR S.49)* and any current applicable ministry protocols, guidelines, checklists for COR reports?	☐	☐	☐
Other Reports	Completed?	☐	☐	☐
	According to other guidelines? *(Provide explanation in notes below. Indicate how reports assist understanding of conditions and / or remediation.)*	☐	☐	☐
Notes*:*				

If completed remediation reports are not adequate or if reports have a different scope than those listed above in accordance with the CSR complete Section 5.6 - Outstanding Remediation Issues.

5.2 Proposed or Completed Remedial Activities

(*Describe all aspects of remediation, including regulatory actions and activities to comply with numerical and/or risk-based standards)*

Regulatory

(Notification of Independent Remediation, Approval in Principle, Certificate of Compliance, Determination, Restrictive Covenant, etc.)

If commitments or conditions to be met are included in an Approval in Principle issued for the site, list these conditions and identify how they were met though remedial activities.

Remediation to comply with numerical standards
(Excavation / disposal of soil, Treatment of soil; Treatment of groundwater, etc.)

Remediation to comply with risk-based standards

Are either of the following intended for use at the site, or have they been carried out?

	Intended		Carried Out	
Screening Level Risk Assessment	☐ Yes	☐ No	☐ Yes	☐ No
Quantitative Risk Assessment	☐ Yes	☐ No	☐ Yes	☐ No

If yes for any above, complete Section 5.5 (Summary of Residual Contamination)

Describe risk management / exposure reduction methods intended or implemented and indicate the status of any measures. *(e.g.,* Physical / engineering*: monitoring, capping or barriers to exposure;* Institutional: *registration of restrictive covenants, financial security, etc.)*

Provide a reference to signed and stamped design drawings provided by a professional engineer for works installed at site boundaries to prevent recontamination of a site.

Report # _____ Page # _____ or Appendix # _____

5.3 Summary of Remediation Plan

	AEC #	Contaminant (s) of Concern	Remediated to the following standard *(proposed or completed)*			Remediation Schedule		
	(Use same #s as for APECs in Table above)		Numerical (Standard, guideline or criteria)	Back-ground (attach CSR Protocol 4 or 9 approval if applicable)	Risk-based	Remediation Complete? Yes	Remediation Complete? No	Proposed or Actual completion date
Soil								
Groundwater								
Sediment								
Surface Water								
Soil Vapour								

In the AEC column, specify as N/ A (not applicable) if remediation or assessment is not required in this environmental medium.

5.4 Summary of Contaminant Treatment or Removal

(Identify and describe all contamination removed from or treated on-site. Ensure section 6.2 is completed if no CSRA is required or only required for a portion of soil removed)

Provide references to figure(s) showing the lateral and vertical extent of any treated or removed contamination. Confirmatory sample locations and corresponding analytical results shall be shown on each figure and in tabular form with reference to applicable standards:

Environmental medium_____ Report #___ Figure #___ Page #___
Environmental medium_____ Report #___ Figure #___ Page #___
Environmental medium_____ Report #___ Figure #___ Page #___

AEC / APEC # *(Use same #s as for APECS in Table above)*	**Contaminant(s) of Concern**	**Medium** *(e.g., soil, groundwater, sediment, surface water, vapour, other)*	**Material Removed**	
			Volume (m^3 or L)	**Disposal Location** *(indicate if treated on-site)*

5.5 Summary of Residual Contamination after Remediation

(Identify and describe all contamination that exceeds CSR numerical standards, after the remediation described above has been implemented.)

AEC / APEC # *(Use same #s as for APECS in Table above)*	**Contaminant of Concern**	**Medium** *(e.g., soil, groundwater, sediment, surface water, vapour, other)*	**Maximum Measured Concentration (indicate units)**	**Extent of Contamination**	
				Area (m^2)	**Depth Range (mbgs)**

5.6 Remediation Issues

Identify remaining issues if the remediation plan, confirmation of remediation report or risk assessment report does not include CSR specified information and current applicable ministry protocols, guidelines, checklists, etc. for these documents..

Part 6: Summary of Soil Relocation

6.1 Relocation with a Contaminated Soil Relocation Agreement

Source Site

(Soil to be relocated under the CSRA (from Table 4.6). Investigation information may be limited to the soil that is the subject of the relocation agreement)

APEC # *(Use same #s as for APECS in Table above)*	**Contaminant of Concern** *(List separately)*	**Classification of the soil to be Relocated** *(</>WL_N, WL_R, AL, PL, RL_{LD}, RL_{HD} CL, IL)*		**Volume (m^3)**
		CSR Schedule 3.1 (µg/g)	**CSR Schedule 3.3 (µg/m^3)**	

Receiving Site

Soil to be relocated has been adequately characterized?							☐ Yes	☐ No
Total Volume of soil to be relocated?								m^3
Applicable CSR Land Use at receiving site	WL_N ☐	WL_R ☐	AL ☐	PL ☐	RL_{LD} ☐	RL_{HD} ☐	CL ☐	IL ☐

Contaminant	**Maximum Contaminant Concentration in soil to be relocated (µg/g)**	**Applicable CSR Schedule 3.1 (µg/g) or 3.3 (µg/m^3) standard at receiving site**

Sufficient data on receiving site?	☐ Yes	☐No

(Ensure to assess any modifying factors for the receiving site soils such as soil pH)

Conditions pertaining to relocation (CSR, Sec. 44):

Will the source and receiving municipality be notified before soil is relocated?	☐ Yes	☐No
Will at least 4 business days be allowed to pass before soil is relocated?	☐ Yes	☐No

6.2 Relocation without a Relocation Agreement

Other soil relocation not requiring a Contaminated Soil Relocation Agreement (CSRA):

Has or will contaminated soil be relocated without a CSRA?	☐ Yes	☐ No
Do exemptions apply? *(indicated below; see CSR Sec. 41)*		
Relocation of contaminated soil on the site at which the contaminated soil originates?	☐ Yes	☐ No
Relocation of contaminated soil which is contaminated due only to the presence of the local background concentration?	☐ Yes	☐ No
Relocation of contaminated soil within an area subject to a wide area remediation plan?	☐ Yes	☐ No
Relocation of contaminated soil originating from emergency cleanup of a spill?	☐ Yes	☐ No
Relocation of soil to an authorized hazardous waste storage or treatment facility? If yes, provide BC Generator Registration #_____	☐ Yes	☐ No
Relocation of contaminated soil to a destination outside of British Columbia?	☐ Yes	☐ No
Relocation of contaminated soil from a specific site not exceeding 5 cubic metres in volume?	☐ Yes	☐ No
Relocation of contaminated soil to federal property?	☐ Yes	☐ No
Relocation to an authorized landfill that is exempt from a CSRA?	☐ Yes	☐ No
Relocation of contaminated soil which does not exceed a site-specific soil standard protective of groundwater? (Protection of groundwater soil standard only numeric exceedance)	☐ Yes	☐ No
Relocation of contaminated soil which does not exceed a water standard for groundwater, based on the concentration resulting from a leachate? (Protection of groundwater soil standard only numeric exceedance)	☐ Yes	☐ No
Relocation of contaminated soil which does not exceed the background concentration in the soil of the receiving site, as determined in accordance with a director's protocol?	☐ Yes	☐ No
Relocation of contaminated soil which satisfies a director's interim standard for soil or vapour?	☐ Yes	☐ No

Part 7: Recommendation of Approved Professional(s)

7.1 Regulatory Instrument and Summary Recommendation

Based on the detailed technical information available for the site, as summarized in this Summary of Site Condition, I *Approved Professional Name* recommend that the following instrument be issued for the Subject Site.

☐ A Determination under section 44 of *EMA*
☐ An AiP under section 53 (1) of *EMA*
☐ A CoC under section 53(3) of *EMA*
☐ A CSRA under section 55(2) of *EMA*
☐ Other (specify)

Although I understand that the basis of such recommendations should only be formally evaluated by reference to detailed technical guidance, the primary basis of this recommendation or these recommendations is as follows:

For a recommendation for a Determination:

- <On the basis of information provided and reviewed, it is my opinion that no CSR Schedule 2 activities have occurred at the subject site>, *or* < CSR Schedule 2 activities are known or suspected to have occurred at the subject site, therefore in my opinion contaminants may have been released onto the subject site so that the site would be classified as a contaminated site in accordance with the CSR> *or* < CSR Schedule 2 activities are known or suspected to have occurred at the subject site, but it is my opinion that the specific nature of such activities would not result in contamination so that the site would be classified as a contaminated site in accordance with the CSR>.
- A Preliminary Site Investigation addressing all identified areas of potential environmental concern (APECs) and potential contaminants of concern (PCOCs) was completed. No substances were identified in concentrations exceeding those identified in CSR Schedules 3.1, 3.2, 3.3 or 3.4, as applicable. All PCOCs have been listed in Schedule B of the draft Determination.

For a recommendation for an Approval in Principle and for a Certificate of Compliance:

- A Preliminary Site Investigation addressing all identified areas of potential environmental concern (APECs) and potential contaminants of concern (PCOCs) was completed. One or more substances were identified at concentrations exceeding applicable standards or criteria in CSR Schedules 3.1, 3.2, 3.3 or 3.4.
- A Detailed Site Investigation addressing the locations and extent of all identified areas of environmental concern (AECs) and contaminants of concern was completed <and forms the basis of a remediation plan or risk assessment> or <was the basis for remediation of the site>.
- When this Summary of Site Condition was prepared <a remediation plan had been prepared that provides for remediating all identified locations and respective extent of all contaminants to either CSR numerical or risk-based standards> or <all contaminants and their respective locations and extent as identified in investigation and risk assessment reports had been remediated to CSR numerical concentration or risk-based standards or criteria (sediments) or both>.

For recommendation for a Contaminated Soil Relocation Agreement:

- The source site soil and receiving site have been adequately characterized to recommend issuance of a Contaminated Soil Relocation Agreement under CSR Protocol 6.

7.2 Substances Remediated and Standards

<Contaminants have been remediated to comply with standards listed in the following table:>

(If the site required remediation and has been remediated.)

	Substances Remediated for Each Type of Standard	
	Numerical Standards	**Risk based Standards**
Soil		
Water		
Sediments		
Soil Vapour		
Other		

Use specific compound names as listed in the Contaminated Sites Regulation schedules

The Director may accept the recommendations of an Approved Professional(s) involved in the review and submission of investigation, risk assessment or remediation reports based in part on the understanding that:

- As of <the date>, the date of signing of this report the Approved Professional, or Approved Professionals if more than one, is/are member(s) in good standing of the Roster of Approved Professionals, as maintained by the ministry, and member(s) of the Contaminated Sites Approved Professionals Society (CSAP Society);
- The Approved Professionals signing this Summary of Site Condition have reviewed Table 1, Protocol 6 for Contaminated Sites (*Eligibility of Applications for Review by Approved Professionals*) and confirm that the *Application for Contaminated Sites Services* may be processed in the manner for non-high risk sites under the Roster of Approved Professionals process;
- That the reviewer has no obligation to undertake any inquiry into the validity, accuracy or precision of what is reported in the documents reviewed, beyond that which there is reasonable cause to believe that there could be errors or oversights in those reports;
- < *as appropriate*> The subject site has been satisfactorily investigated for all areas of <potential> environmental concern and <potential> contaminants of concern to determine the lateral and vertical extents of contamination with due regard to the *EMA*, the CSR, and the HWR;
- <*as appropriate*> The submitted documentation meets the requirements of Sections <1, 47, 49, 58 and 59> of the CSR;
- <*as appropriate*> The Screening Level Risk Assessment meets the requirements of Protocol 13;

- *<for AiPs>* The submitted remediation plan, if implemented in accordance with the specified conditions imposed in its draft Schedule "B" of the AIP, will result in the subject site being remediated in accordance with the applicable standards of the CSR and the HWR;
- *<for AiPs>* It is feasible to implement all provisions of the Remediation Plan and to achieve its objectives and the conditions of the AIP within 5 years of issuance of the AIP;
- *<for CoCs>* The confirmation of remediation report meets the requirements of section 49(2) of the CSR;
- *<for CoCs>* The onsite management area(s) has/have been satisfactorily remediated in accordance with section 53 (3) of the *EMA* and section 49(2) of the CSR in accordance with applicable standards as identified in the draft COC;
- *<for CoCs where contamination exists beyond the legal lot boundaries>* The off-site portion(s) of the site has/have been satisfactorily remediated in accordance with section 53 (3) of the *EMA* and section 49(2) of the CSR and makes up part of this application *<or>* a Remediation Plan in accordance with requirements of the the CSR, sections 1 and 47 has/have been prepared and application has been made for AIP for the off-site portions.
- *<for CoCs where contamination exists beyond the legal lot boundaries and engineered works are required to prevent recontamination of the site>* A signed and stamped design drawing has been provided by a professional engineer for works installed at site boundaries to prevent recontamination of the site. The signatory need not be the Approved Professional signing below.
- *<for Determination>* In accordance with section 15 (5) of the CSR, the subject site is *<or is not>* a contaminated site under section 44(1) of the *Environmental Management Act*;
- *< if a "direct" final determination>* In accordance with section 15 (5) of the CSR, the subject site is a contaminated site under section 44(3) of the *EMA;*
- *<for CSRA*s> In accordance with section 43 (2) of the CSR, the soil to be relocated from the subject site complies with applicable standards and is suitable for relocation to the receiving site identified in this Summary of Site Condition.

The opinions, advice and recommendations expressed in this Summary of Site Condition are made in accordance with generally accepted principles and practices as recognized by members of the applicable profession or discipline practising at the same time and in the same or similar locations. This Summary of Site Condition does not provide a legal opinion or guarantee regarding compliance with applicable laws.

Name(s) of Approved Professional(s):	**Signature(s) of Approved Professional(s):**	**Date:**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

7.3 Arm's Length Review

There may have been an arm's length review of one or more of the following recommendations to the Director of Waste Management:

1. Making a recommendation to a Director in support of an application for an Approval in Principle based on remediation to numerical standards or a screening level risk assessment where there is offsite migration at the site.
2. Making a recommendation to a director in support of an application for an Approval in Principle based on a risk assessment (other than a screening level risk assessment) and remediation to risk-based standards
3. Making a recommendation to a Director in support of an application for a Certificate of Compliance based on remediation to numerical standards or a screening level risk assessment where there is offsite migration at the site.
4. Making a recommendation to a Director in support of an application for a Certificate of Compliance based on a risk assessment (other than a screening level risk assessment) and remediation to risk-based standards
5. Making a recommendation to a Director in support of an application for a Contaminated Soil Relocation Agreement based on a screening level risk assessment for the parcel at which the soil is to be deposited where there is offsite migration at the source site
6. Making a recommendation to a Director in support of an application for a Contaminated Soil Relocation Agreement based on a risk assessment (other than a screening level risk assessment) for the parcel at which the soil is to be deposited
7. Making a recommendation to a Director in support of any other application based on risk assessment or risk management (other than a screening level risk assessment) not otherwise described in any other row in this list, as required under a protocol signed by a Director.

If this is the case please have the Approved Professional who carried out the arm's length review to sign below, specifying the type of arm's length review done for the site.

Type of Arm's Length Review (Insert number from list)	**Name(s) of Approved Professional(s):**	**Signature(s) of Approved Professional(s):**	**Date:**
	_____	_____	_____
	_____	_____	_____

Part 8: Statement of Site Owner / Agent / Lessee

8.1 Offsite Migration Notification

If it is known that one or more substances has migrated or is likely to have migrated to a neighbouring site and is or is likely causing contamination of the neighbouring site, have notifications been given?

(See CSR Sec. 57 and 60.1 for requirements)

	Yes	No
Have owners of impacted offsite properties been formally notified?	☐	☐
Has the ministry been formally notified?	☐	☐

8.2 Confirmations by Owner / Agent / Lessee Regarding Approved Professional

This is to acknowledge that as <the owner / as the agent on behalf of the owner / lessee> *(strike out and initial that which does not apply – if signing as the agent of the owner or lessee, written consent from the owner or lessee authorizing signature of this Summary of Site Condition must be attached)* of the site I have engaged *Approved Professional Name(s)*
as the Approved Professional(s) to review site investigation, risk assessment and remediation reports and to make submission and application with recommendations, if applicable, for the regulatory instrument(s) as indicated in this Summary of Site Condition.

I agree to comply with any requirements on the site regarding monitoring and maintenance of works as documented in <schedule B of the draft contaminated sites legal instrument >.

I accept that if a risk assessment has been applied at the site, that the risk assessment is only valid as long as conditions at the site do not change.

I have undertaken reasonable inquiry into the previous ownership and uses of the property and to the best of my knowledge I have provided to the Approved Professional, information relevant to the investigation and remediation of the environmental condition of the site, in the preparation of this document.

I acknowledge that this Summary of Site Condition becomes a public document after it has been received and acknowledged by the Director of Waste Management. Any party intending to purchase, lease, take a security interest in, or occupy the site may review this document and any supporting documents to satisfy themselves with respect to the environmental condition of the site, and the extent of responsibility and liability that may arise from taking ownership, taking a security interest, or occupying the site.

I have made no modifications to this document except as allowed by the form.

Name:

Address:

Signature:

Date:

SCHEDULE 2

[am. B.C. Regs. 17/2002, s. 16; 239/2007, s. 5; 343/2008, s. 12; 62/2013, s. 1; 253/2016, s. 16.]

INDUSTRIAL AND COMMERCIAL PURPOSES AND ACTIVITIES

COLUMN 1 Item	COLUMN 2 Purpose or Activity
A	**Chemical industries and activities** 1. adhesives manufacturing or wholesale bulk storage 2. chemical manufacturing or wholesale bulk storage 3. explosives or ammunition manufacturing or wholesale bulk storage 4. fire retardant manufacturing or wholesale bulk storage 5. fertilizer manufacturing or wholesale bulk storage 6. ink or dye manufacturing or wholesale bulk storage 7. leather or hides tanning 8. paint, lacquer or varnish manufacturing, formulation, recycling or wholesale bulk storage 9. pharmaceutical products, or controlled substances as defined in the *Controlled Drugs and Substances Act* (Canada), manufacturing or operations 10. plastic products (foam or expanded plastic products) manufacturing 11. textile dying 12. pesticide manufacturing, formulation or wholesale bulk storage 13. resin or plastic monomer manufacturing, formulation or wholesale bulk storage
B	**Electrical equipment and activities** 1. battery (lead acid or other) manufacturing or wholesale bulk storage 2. communications stations using or storing equipment that contains PCBs 3. electrical equipment manufacturing, refurbishing or wholesale bulk storage 4. electrical transmission or distribution substations 5. electronic equipment manufacturing 6. transformer oil manufacture, processing or wholesale bulk storage 7. electrical power generating operations fuelled by coal or petroleum hydrocarbons and supplying electricity to a community or commercial or industrial operation
C	**Metal smelting, processing or finishing industries and activities** 1. foundries or scrap metal smelting 2. galvanizing 3. metal plating or finishing 4. metal salvage operations 5. nonferrous metal smelting or refining 6. welding or machine shops (repair or fabrication)
D	**Mining, milling or related industries and activities** 1. asbestos mining, milling, wholesale bulk storage or shipping 2. coal coke manufacture, wholesale bulk storage or shipping 3. coal or lignite mining, milling, wholesale bulk storage or shipping 4. milling reagent manufacture, wholesale bulk storage or shipping 5. nonferrous metal concentrate wholesale bulk storage or shipping 6. nonferrous metal mining or milling

COLUMN 1 Item	COLUMN 2 Purpose or Activity
E	**Miscellaneous industries, operations or activities**
	1. appliance, equipment or engine repair, reconditioning, cleaning or salvage
	2. ash deposit from boilers, incinerators, or other thermal facilities
	3. asphalt tar manufacture, wholesale storage and distribution
	4. coal gasification (manufactured gas production)
	5. medical, chemical, radiological or biological laboratories
	6. rifle or pistol firing ranges
	7. road salt storage facilities
	8. measuring instruments (containing mercury) manufacture, repair or wholesale bulk storage
	9. dry cleaning facilities or operations and dry cleaning chemical storage
	10. sites which have been or likely have been contaminated by substances migrating from other properties
	11. controlled substances, as defined in the *Controlled Drugs and Substances Act* (Canada), manufacturing or operations
F	**Petroleum and natural gas drilling, production, processing, retailing, distribution and storage other than the storage of residential heating fuel in tanks**
	1. petroleum or natural gas drilling
	2. petroleum or natural gas production facilities
	3. natural gas processing
	4. petroleum coke manufacture, wholesale bulk storage or shipping
	5. petroleum product, other than compressed gas, dispensing facilities, including service stations and card locks
	6. petroleum, natural gas or sulphur pipeline rights of way excluding rights of way for pipelines used to distribute natural gas to consumers in a community
	7. petroleum product, other than compressed gas, or produced water storage in above ground or underground tanks
	8. petroleum product, other than compressed gas, wholesale bulk storage or distribution
	9. petroleum refining wholesale bulk storage or shipping
	10. solvent manufacturing or wholesale bulk storage
	11. sulphur handling, processing or wholesale bulk storage and distribution
G	**Transportation industries, operations and related activities**
	1. aircraft maintenance, cleaning or salvage
	2. automotive, truck, bus, subway or other motor vehicle repair, salvage or wrecking
	3. bulk commodity storage or shipping (e.g. coal)
	4. dry docks, ship building or boat repair and maintenance, including paint removal from hulls
	5. marine equipment salvage
	6. rail car or locomotive maintenance, cleaning, salvage or related uses, including railyards
	7. truck, rail or marine bulk freight handling

COLUMN 1 Item	COLUMN 2 Purpose or Activity
H	**Waste disposal and recycling operations and activities**
	1. antifreeze bulk storage or recycling
	2. barrel, drum or tank reconditioning or salvage
	3. battery (lead acid or other) recycling
	4. biomedical waste disposal
	5. bulk manure stockpiling and high rate land application or disposal (nonfarm applications only)
	6. construction demolition material, including without limitation asphalt and concrete, landfilling
	7. contaminated soil storage, treatment or disposal
	8. dredged waste disposal
	9. drycleaning waste disposal
	10. electrical equipment recycling
	11. industrial waste lagoons or impoundments
	12. industrial waste storage, recycling or landfilling
	13. industrial woodwaste (log yard waste, hogfuel) disposal
	14. mine tailings waste disposal
	15. municipal waste storage, recycling, composting or landfilling
	16. organic or petroleum material landspreading (landfarming)
	17. sandblasting waste disposal
	18. septic tank pumpage storage or disposal
	19. sewage lagoons or impoundments
	20. hazardous waste storage, treatment or disposal
	21. sludge drying or composting
	22. street or yard snow removal dumping
	23. waste oil reprocessing, recycling or bulk storage
	24. wire reclaiming operations
I	**Wood, pulp and paper products and related industries and activities**
	1. particle board manufacturing
	2. pulp mill operations
	3. pulp and paper manufacturing
	4. treated wood storage at the site of treatment
	5. veneer or plywood manufacturing
	6. wafer board manufacturing
	7. wood treatment (antisapstain or preservation)
	8. wood treatment chemical manufacturing, wholesale bulk storage
	9. sawmills

SCHEDULE 2.1

[en. B.C. Reg. 253/2016, s. 17, as am. by B.C. Reg. 196/2017, s. 3.]

PROTECTED AREAS

Item	Column 1 **Area**	Column 2 **Act**
1	a national marine conservation area reserve	*Canada National Marine Conservation Areas Act*
2	a national park or a national park reserve	*Canada National Parks Act*
3	a public land required for wildlife research, conservation or interpretation	*Canada Wildlife Act*
4	a management area	*Creston Valley Wildlife Act*
5	an ecological reserve	*Ecological Reserve Act*
6	an area that is subject to an order the Lieutenant Governor in Council considers necessary or advisable in respect of the environment or land use for the preservation or maintenance of the natural environment	*Environment and Land Use Act*
7	the Flathead watershed area	*Flathead Watershed Area Conservation Act*
8	(a) an ungulate winter range or a wildlife habitat area in respect of which there is to be no timber harvesting, but not in respect of which there may be conditional timber harvesting, or (b) a fisheries sensitive watershed area	*Forest and Range Practices Act*
9	an old growth zone	*Forest Practices Code of British Columbia Act*
10	an area that is subject to an order by the minister responsible for administering the *Land Act*, which order establishes objectives in respect of old growth management	*Land Act*
11	a migratory bird sanctuary	*Migratory Birds Convention Act, 1994* (Canada)
12	the Muskwa-Kechika Management Area	*Muskwa-Kechika Management Area Act*

Item	Column 1 **Area**	Column 2 **Act**
13	(a) an ungulate winter range or a wildlife habitat area in respect of which there is to be no timber harvesting, but not in respect of which there may be conditional timber harvesting, (b) a fisheries sensitive watershed area, or (c) an old-growth management area	*Oil and Gas Activities Act*
14	(a) a conservancy, (b) a park, or (c) a designated wildland area within a recreation area	*Park Act*
15	(a) an ecological reserve (b) a park, or (c) a conservancy	*Protected Areas of British Columbia Act*
16	an area identified as a critical habitat in respect of which the critical habitat approach is based on a site or area level, but not based on a landscape level	*Species at Risk Act* (Canada)
17	a wildlife management area	*Wildlife Act*
18	an area designated as a special forest management area in respect of a grizzly bear habitat or a fisheries sensitive watershed	*Great Bear Rainforest (Forest Management) Act*

SCHEDULE 3

[en. B.C. Reg. 11/2019, s. 13.]

TABLE 1: FEES FOR SITE PROFILES AND INFORMATION

COLUMN 1 Action	COLUMN 2 Fee
1 Site Profiles	
Person provides a site profile to an approving officer or municipality	$100
2 Information Obtained by Accessing Computer-based Site Registry	
(a) (i) Person queries the computer-based site registry by a site identification number.	$10*
(b) (i) Person queries the computer-based site registry by a Land Title Parcel Identifier (PID), Crown Land Parcel Identification Number (PIN), or Crown Lands file number	$25*
(ii) Person accesses a computer-based site registry site synopsis report	$25*
(c) (i) Person queries the computer-based site registry by address	$50*
(ii) Person accesses a computer-based site registry site details report	$50*
(iii) Person queries the computer-based site registry by geographic area within 0.5 km radius of a specific latitude and longitude	$50*
(d) Person queries the computer-based site registry by geographic area within 5.0 km radius of a specific latitude and longitude	$100*
(e) Person requests assistance of a government employee to perform a computer-based site registry query	$10
(f) Person requests the site registrar to prepare a custom report of computer-based site registry information	$500 plus $100/hour for time required beyond 3 hours to prepare the information
(g) Person requests the custom report described in (f) above to be regularly updated and provided by the site registrar	$200 per updated report
3 Information Obtained by Accessing Other Computer-based Records	
Person requests information about a single site by a search of computer-based records in databases, including but not limited to databases for wastes, hazardous wastes and spills	$100 per database
* In addition to a fee marked by an asterisk, a further operator fee of $1.00 may be charged for any transaction done by electronic means from a location outside a government office or at a government office by a person who is not a government employee.	

TABLE 2: FEES FOR SERVICES AND FUNCTIONS PROVIDED DIRECTLY BY THE MINISTRY OR PERSONS ON BEHALF OF THE MINISTRY

	COLUMN 1 Action or Activity	COLUMN 2 Fee
1	**Determination of Contaminated Site**	
	Person requests a determination whether a site is a contaminated site	$3 000
2	**Reviews of Reports, Plans and Covenants**	
(a)	Review of a preliminary site investigation report	$5 000
(b)	Review of a detailed site investigation report	$15 000
(c)	Review of a remediation plan which does not include a human health risk assessment and/or environmental risk assessment report	$12 000
(d)	Review of a remediation plan which includes a human health risk assessment and/or environmental risk assessment report	$20 000
(e)	Review of a confirmation of remediation report	$7 000
(f)	Review of a covenant prior to registering	$6 000
(g)	Review of a human health risk assessment and/or environmental risk assessment report not included in a remediation plan	$10 000
(h)	Review of a summary of site condition	$2 000
3	**Agreements and Indemnifications**	
(a)	Contaminated soil relocation agreement	$2 000
(b)	Person requests a voluntary remediation agreement	$4 000
(c)	Person requests a transfer agreement under Part 5 of the Act	$4 000
(d)	Person requests indemnification for a site under the *Financial Administration Act*	$8 000
4	**Approvals, Certificates and Orders**	
(a)	Approval in principle for a remediation plan	$3 000
(b)	Certificate of compliance	$6 000
(c)	Additional fee for an approval in principle or certificate of compliance if a person is ordered by a director to investigate or remediate a site	$12 000
5	**Background, Site-specific Standards, Environmental Management Areas**	
(a)	Person requests review of background substance concentrations for a site under section 11, 17 or 18	$3 000
(b)	Person requests review of proposed site-specific standards for a site under section 11 or 17	$4 000
(c)	Person requests designation of an area as an environmental management area	$10 000
6	**Minor Contributor Determination**	
	Person requests a determination as to a person's minor contributor status	$2 000
7	**Allocation Panel**	
(a)	Person requests the appointment of an allocation panel	$2 000
(b)	Person requests an allocation panel opinion and an allocation panel carries out work and provides an opinion	$1 000 per panel member per day

TABLE 3: ADDITIONAL SERVICES AND FUNCTIONS

Action or Activity	Additional Services and Functions
1	A person, on behalf of the ministry, inspects, monitors and verifies for remediation or an approval in principle, certificate of compliance, voluntary remediation agreement, transfer agreement, indemnification request or application, contaminated soil relocation agreement, or contaminated sites compliance or enforcement investigation
2	A person, on behalf of the ministry, consults, negotiates or provides advice with respect to a specific site regarding any • analytical method for contaminated sites • approval in principle • certificate of compliance • confirmation of remediation • covenant under section 219 of the *Land Title Act* • determination of contaminated site under section 44 of the Act • environmental risk assessment • external contract review carried out under section 10 • human health risk assessment • implementation of remediation • indemnification under the *Financial Administration Act* • independent remediation • ministry contaminated sites guidance • ministry contaminated sites policy, procedure or protocol • minor contributor status provision or designation • notification for the migration or likely migration of a substance to a neighbouring site • order for public consultation or review under section 52 of the Act • pollution prevention order or pollution abatement order issued under Part 7 of the Act • providing for appointment or opinion of an allocation panel • remediation order • security, including the posting of security • site investigation • site profile • site registry requirement • soil relocation • standard, criterion or protocol • summary of site condition • transfer agreement under Part 5 of the Act • voluntary remediation agreement • environmental management area planning or designation • other provision of Part 4 or 5 of the Act

SCHEDULE 3.1

[en. B.C. Reg. 13/2019, s. 12.]

SCHEDULE 3.1 – PART 1

MATRIX 1 - NUMERICAL SOIL STANDARDS[1]
ANTHRACENE (CHEMICAL ABSTRACT SERVICE NUMBER 120-12-7)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	
HUMAN HEALTH PROTECTION									2
Intake of contaminated soil	25 000	25 000	10 000	25 000	10 000	25 000	75 000	> 1 000 mg/g	3
Groundwater used for drinking water	NS	NS	NS	NS	NS	NS	NS	NS	4
ENVIRONMENTAL PROTECTION									
Toxicity to soil invertebrates and plants	1.5	2.5	2.5	2.5	2.5	30	30	30	5
Livestock ingesting soil and fodder			NS						6
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	4
Groundwater used for livestock watering			NS						6
Groundwater used for irrigation			NS	NS	NS	NS			6

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.

2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. NS – no standard. Soil to groundwater transport model predicts applicable water use standard for the substance will not be exceeded at the point of receptor exposure.
5. AL, PL CL and IL standard s are set equal to the corresponding 2010 Canadian Council of Ministers or the Environment (CCME) soil quality criteria. WL_N standard is derived by dividing the 2010 CCME parkland soil quality criterion by the Protocol 28, "2016 Standards Derivation Methods", Wildlands divisor. WL_R standard is set equal to the 2010 CCME parkland soil quality criterion. RL_{LD} standard is set equal to the 2010 CCME residential soil quality criterion. RL_{HD} standard is set equal to the 2010 CCME commercial soil quality criterion.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 2 - NUMERICAL SOIL STANDARDS[1]
ARSENIC (CHEMICAL ABSTRACT SERVICE NUMBER 7440-38-2)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	
HUMAN HEALTH PROTECTION Intake of contaminated soil	40	40	20	40	20	40	150	400	3,4
Groundwater used for drinking water	10	10	10	10	10	10	10	10	5
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	15	25	25	25	25	40	40	40	
Livestock ingesting soil and fodder			25						
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life									
Freshwater	10	10	10	10	10	10	10	10	5
Marine	10	10	10	10	10	10	10	10	
Groundwater used for livestock watering			10						5
Groundwater used for irrigation			10	10	10	10			5

Notes
1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated

from time to time, a director's protocol or alternate methods acceptable to a director.

2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. Standards have been adjusted using the 2012 US EPA OSWER Directive 9200.1-113 default Relative Bioavailability Factor (0.6) for arsenic in soil.
5. Standards have been adjusted based on 2016 reference Provincial background soil concentration for the substance.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 3 - NUMERICAL SOIL STANDARDS[1]
BARIUM (CHEMICAL ABSTRACT SERVICE NUMBER 7440-39-3)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	
HUMAN HEALTH PROTECTION Intake of contaminated soil	15 000	15 000	8 500	15 000	8 500	15 000	50 000	> 1 000 mg/g	3
Groundwater used for drinking water	350	350	350	350	350	350	350	350	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	350	700	700	700	700	1 500	1 500	1 500	
Livestock ingesting soil and fodder			400						
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life									
Freshwater	3 500	3 500	3 500	3 500	3 500	3 500	3 500	3 500	
Marine	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	
Groundwater used for livestock watering			NS						4
Groundwater used for irrigation			NS	NS	NS	NS			4

Notes
1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time

to time, a director's protocol or alternate methods acceptable to a director.

2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 4 - NUMERICAL SOIL STANDARDS[1]
BENZENE (CHEMICAL ABSTRACT SERVICE NUMBER 71-43-2)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	350	350	150	350	150	350	1 000	6 500	3
Groundwater used for drinking water	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	35	100	100	100	100	250	250	250	
Livestock ingesting soil and fodder			NS						4
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life									
Freshwater	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Marine	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Groundwater used for livestock watering			NS						4
Groundwater used for irrigation			NS	NS	NS	NS			4

Notes
1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time

to time, a director's protocol or alternate methods acceptable to a director.

2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard or no appropriate standards, guideline or criterion exists to develop a soil quality standard.

MATRIX 5 - NUMERICAL SOIL STANDARDS[1]
BENZO(A)PYRENE (CHEMICAL ABSTRACT SERVICE NUMBER 50-32-8)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	10	10	5	10	5	10	30	50	3
Groundwater used for drinking water	NS	NS	NS	NS	NS	NS	NS	NS	4
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	15	20	20	20	20	70	70	70	5
Livestock ingesting soil and fodder			NS						6
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	4
Groundwater used for livestock watering			NS						6
Groundwater used for irrigation			NS	NS	NS	NS			6

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. NS – no standard. Soil to groundwater transport model predicts applicable water use standard for the substance will not be exceeded at the point of receptor exposure.
5. AL, PL CL and IL standards are set equal to the corresponding 2010 Canadian Council of Ministers or the Environment (CCME) soil quality criteria. WL_N standard is derived by dividing the 2010 CCME parkland soil quality criterion by the Protocol 28, "2016 Standards Derivation Methods", Wildlands divisor. WL_R standard is set equal to the 2010 CCME parkland soil quality criterion. RL_{LD} standard is set equal to the 2010 CCME residential soil quality criterion. RL_{HD} standard is set equal to the 2010 CCME commercial soil quality criterion.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 6 - NUMERICAL SOIL STANDARDS[1]
BERYLLIUM (CHEMICAL ABSTRACT SERVICE NUMBER 7440-41-7)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION									
Intake of contaminated soil	150	150	85	150	85	150	500	15 000	3
Groundwater used for drinking water									
pH < 5.5	1	1	1	1	1	1	1	1	4,5
pH 5.5 - < 6.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4
pH 6.0 - < 6.5	4	4	4	4	4	4	4	4	4
pH 6.5 - < 7.0	20	20	20	20	20	20	20	20	4
pH 7.0 - < 7.5	150	150	150	150	150	150	150	150	4
pH 7.5 - < 8.0	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	4
pH ≥ 8.0	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	4
ENVIRONMENTAL PROTECTION									
Toxicity to soil invertebrates and plants	75	150	150	150	150	350	350	350	6
Livestock ingesting soil and fodder			NS						6
Major microbial functional impairment			NS						
Groundwater flow to surface water used by aquatic life									
Freshwater									
pH < 6.5	1	1	1	1	1	1	1	1	4,5
pH 6.5 - < 7.0	4	4	4	4	4	4	4	4	4

pH 7.0 - < 7.5	30	30	30	30	30	30	30	4
pH 7.5 - < 8.0	250	250	250	250	250	250	250	4
pH ≥ 8.0	500	500	500	500	500	500	500	4
Marine								
pH < 5.0	85	85	85	85	85	85	85	4
pH 5.0 - < 5.5	100	100	100	100	100	100	100	4
pH 5.5 - < 6.0	200	200	200	200	200	200	200	4
pH 6.0 - < 6.5	550	550	550	550	550	550	550	4
pH 6.5 - < 7.0	2 500	2 500	2 500	2 500	2 500	2 500	2 500	4
pH 7.0 - < 7.5	20 000	20 000	20 000	20 000	20 000	20 000	20 000	4
pH 7.5 - < 8.0	150 000	150 000	150 000	150 000	150 000	150 000	150 000	4
pH ≥ 8.0	350 000	350 000	350 000	350 000	350 000	350 000	350 000	4
Groundwater used for livestock watering								
pH < 5.0			8.5					4
pH 5.0 - < 5.5			10					4
pH 5.5 - < 6.0			20					4
pH 6.0 - < 6.5			55					4
pH 6.5 - < 7.0			250					4
pH 7.0 - < 7.5			2 000					4
pH 7.5 - < 8.0			15 000					4
pH ≥ 8.0			35 000					4
Groundwater used for irrigation								
pH < 5.0			8.5	8.5	8.5	8.5		4
pH 5.0 - < 5.5			10	10	10	10		4
pH 5.5 - < 6.0			20	20	20	20		4
pH 6.0 - < 6.5			55	55	55	55		4
pH 6.5 - < 7.0			250	250	250	250		4
pH 7.0 - < 7.5			2 000	2 000	2 000	2 000		4
pH 7.5 - < 8.0			15 000	15 000	15 000	15 000		4
pH ≥ 8.0			35 000	35 000	35 000	35 000		4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director.

2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. The pH is the pH of the soil at a site.
5. Standards have been adjusted based on 2016 reference Provincial background soil concentration for the substance.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 7 - NUMERICAL SOIL STANDARDS[1]
CADMIUM (CHEMICAL ABSTRACT SERVICE NUMBER 7440-43-9)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	40	40	20	40	20	40	150	3 500	3
Groundwater used for drinking water									
pH < 7.0	1	1	1	1	1	1	1	1	4,5
pH 7.0 - < 7.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4
pH 7.5 - < 8.0	30	30	30	30	30	30	30	30	4
pH ≥ 8.0	70	70	70	70	70	70	70	70	4
ENVIRONMENTAL PROTECTION									
Toxicity to soil invertebrates and plants	15	30	30	30	30	75	75	75	
Livestock ingesting soil and fodder			10						6
Major microbial functional impairment			55						
Groundwater flow to surface water used by aquatic life									
Freshwater									
pH < 7.0	1	1	1	1	1	1	1	1	4,5,7
pH 7.0 - < 7.5	3	3	3	3	3	3	3	3	4,7
pH 7.5 - < 8.0	20	20	20	20	20	20	20	20	4,7
pH ≥ 8.0	50	50	50	50	50	50	50	50	4,7
Marine									
pH < 5.5	1	1	1	1	1	1	1	1	4,5
pH 5.5 - < 6.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4

pH 6.0 - < 6.5	2	2	2	2	2	2	2	4
pH 6.5 - < 7.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4
pH 7.0 - < 7.5	15	15	15	15	15	15	15	4
pH 7.5 - < 8.0	95	95	95	95	95	95	95	4
pH ≥ 8.0	200	200	200	200	200	200	200	4
Groundwater used for livestock watering								
pH < 5.0			4.5					4
pH 5.0 - < 5.5			6					4
pH 5.5 - < 6.0			8.5					4
pH 6.0 - < 6.5			10					4
pH 6.5 - < 7.0			20					4
pH 7.0 - < 7.5			75					4
pH 7.5 - < 8.0			500					4
pH ≥ 8.0			1 000					4
Groundwater used for irrigation								
pH < 7.0			1	1	1	1		4.5
pH 7.0 - < 7.5			4.5	4.5	4.5	4.5		4
pH 7.5 - < 8.0			30	30	30	30		4
pH ≥ 8.0			70	70	70	70		4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. The pH is the pH of the soil at a site.
5. Standards have been adjusted based on the 2016 reference Provincial background soil concentration for the substance.
6. Standard is set equal to 1999 Canadian Council of Ministers of the Environment, "Nutrient and energy cycling check value".
7. Standard varies with receiving water hardness (H). H = 150 to < 210 mg/L as $CaCO_3$ is assumed. Consult director for further advice.

MATRIX 8 - NUMERICAL SOIL STANDARDS[1]
CHLORIDE ION (CHEMICAL ABSTRACT SERVICE NUMBER 16887-00-6)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	3
Groundwater used for drinking water	100	100	100	100	100	100	100	100	4
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	200	350	350	350	350	2 500	2 500	2 500	
Livestock ingesting soil and fodder			NS						5
Major microbial functional impairment			NS						5
Groundwater flow to surface water used by aquatic life	600	600	600	600	600	600	600	600	4,6
Groundwater used for livestock watering			250						4
Groundwater used for irrigation			40	40	40	40			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. Standard varies with Kd for chloride ion in the soil of a site. Standard is appropriate to a chloride:soil Kd range of 0 to 0.1 mL/g. Consult a director for further advice.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard or no appropriate standard, guideline or criterion exists to develop a soil quality standard.
6. Standard to protect freshwater aquatic life.

MATRIX 9 - NUMERICAL SOIL STANDARDS[1,2]
CHROMIUM (CHEMICAL ABSTRACT SERVICE NUMBER 7440-47-3)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	
HUMAN HEALTH PROTECTION									3
Intake of contaminated soil	250	250	100	250	100	250	750	20 000	4,5
Groundwater used for drinking water	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000 mg/g	6,7 8
ENVIRONMENTAL PROTECTION									
Toxicity to soil invertebrates and plants	100	200	200	200	200	250	250	250	5
Livestock ingesting soil and fodder			150 60						6 7,8
Major microbial functional impairment			60						7,9
Groundwater flow to surface water used by aquatic life									
Freshwater	60 300 000	60 300 000	60 300 000	60 300 000	60 300 000	60 300 000	60 300 000	60 300 000	6,7 8
Marine	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000m g/g	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000 mg/g	60 > 1 000 mg/g	6,7 8
Groundwater used for livestock watering			60 150 000						6,7 8

Groundwater used for irrigation			60 15 000	60 15 000	60 15 000	60 15 000		6,7 8

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director.
2. Analytical results for chromium (all species) in soil may be used to demonstrate compliance with the standards of this matrix. Where the standards cannot be met based on analytical results for chromium (all species), determination of chromium, trivalent and chromium, hexavalent concentrations in soil may be necessary.
3. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
4. Intake pathway of exposure modelled is inadvertent ingestion of soil.
5. Standard is based on chromium (all species).
6. Standard is for chromium, hexavalent.
7. Standard has been adjusted based on 2016 reference Provincial background soil concentration for the substance.
8. Standard is for chromium, trivalent.
9. Standard is set equal to 1999 Canadian Council of Ministers of the Environment, "Nutrient and energy cycling check value".

MATRIX 10 - NUMERICAL SOIL STANDARDS[1]
COBALT (CHEMICAL ABSTRACT SERVICE NUMBER 7440-48-4)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	25	25	25	25	25	25	75	2 000	3,4
Groundwater used for drinking water	25	25	25	25	25	25	25	25	5
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	25	45	45	45	45	200	200	200	
Livestock ingesting soil and fodder			250						
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life	25	25	25	25	25	25	25	25	5
Groundwater used for livestock watering			150						
Groundwater used for irrigation			25	25	25	25			5

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.

4. Some standards have been adjusted based on 2016 reference Provincial background soil concentration for the substance.
5. Standards have been adjusted based on 2016 reference provincial background soil concentration for the substance.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to use to develop a soil quality standard.

MATRIX 11 - NUMERICAL SOIL STANDARDS[1]
COPPER (CHEMICAL ABSTRACT SERVICE NUMBER 7440-50-8)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION									
Intake of contaminated soil	7 500	7 500	3 500	7 500	3 500	7 500	25 000	700 000	3
Groundwater used for drinking water									
pH < 5.0	250	250	250	250	250	250	250	250	4
pH 5.0 - < 5.5	500	500	500	500	500	500	500	500	4
pH 5.5 - < 6.0	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	4
pH 6.0 - < 6.5	10 000	10 000	10 000	10 000	10 000	10 000	10 000	10 000	4
pH 6.5 - < 7.0	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	4
pH ≥ 7.0	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	4
ENVIRONMENTAL PROTECTION									
Toxicity to soil invertebrates and plants	85	150	150	150	150	300	300	300	
Livestock ingesting soil and fodder			150						5
Major microbial functional impairment			350						
Groundwater flow to surface water used by aquatic life									
Freshwater									
pH < 5.5	75	75	75	75	75	75	75	75	4,6,7
pH 5.5 - < 6.0	100	100	100	100	100	100	100	100	4,7
pH 6.0 - < 6.5	700	700	700	700	700	700	700	700	4,7
pH 6.5 - < 7.0	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000	4,7

pH 7.0 - < 7.5	6 500	6 500	6 500	6 500	6 500	6 500	6 500	4,7
pH ≥ 7.5	7 500	7 500	7 500	7 500	7 500	7 500	7 500	4,7
Marine								
pH < 6.0	75	75	75	75	75	75	75	4,6
pH 6.0 - < 6.5	150	150	150	150	150	150	150	4
pH 6.5 - < 7.0	650	650	650	650	650	650	650	4
pH ≥ 7.0	1 500	1 500	1 500	1 500	1 500	1 500	1 500	4
Groundwater used for livestock watering								
pH < 5.0			75					4,6
pH 5.0 - < 5.5			100					4
pH 5.5 - < 6.0			400					4
pH 6.0 - < 6.5			2 500					4
pH 6.5 - < 7.0			10 000					4
pH 7.0 - < 7.5			20 000					4
pH ≥ 7.5			25 000					4
Groundwater used for irrigation								
pH < 5.5			75	75	75	75		4,6
pH 5.5 - < 6.0			300	300	300	300		4
pH 6.0 - < 6.5			1 500	1 500	1 500	1 500		4
pH 6.5 - < 7.0			6 500	6 500	6 500	6 500		4
pH ≥ 7.0			15 000	15 000	15 000	15 000		4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. The pH is the pH of the soil at a site.
5. Standard is set equal to 1999 Canadian Council of Ministers of the Environment, "Nutrient and energy cycling check value".
6. Standards have been adjusted based on 2016 reference Provincial background soil concentration for the substance.
7. Standard varies with receiving water hardness (H). H ≥ 200 mg/L as $CaCO_3$ is assumed. Consult a director for further advice.

MATRIX 12 - NUMERICAL SOIL STANDARDS[1,2]
CYANIDE (CHEMICAL ABSTRACT SERVICE NUMBER 57-12-5)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	
HUMAN HEALTH PROTECTION Intake of contaminated soil	50	50	25	50	25	50	150	4 000	4
Groundwater used for drinking water	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	2	3	3	3	3	10	10	10	
Livestock ingesting soil and fodder			11						5
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life									
Freshwater	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Marine	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	
Groundwater used for livestock watering			NS						6
Groundwater used for irrigation			NS	NS	NS	NS			6

Notes
1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from

time to time, a director's protocol or alternate methods acceptable to a director.
2. Samples for cyanide in soil must be analyzed using the appropriate "Cyanide Weak Acid Dissociable (WAD)" analytical method as specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.
3. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
4. Intake pathway of exposure modelled is inadvertent ingestion of soil.
5. Standard is set equal to the 1997 CCME agricultural soil & food ingestion criterion.
6. NS – No standard. Insufficient acceptable scientific data exists to calculate a standard or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 13 - NUMERICAL SOIL STANDARDS[1,2]
DICHLORODIPHENYLTRICHLOROETHANE, TOTAL [DDT]
(CHEMICAL ABSTRACT SERVICE NUMBER not applicable)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	
HUMAN HEALTH PROTECTION Intake of contaminated soil	40	40	20	40	20	40	150	1 000	4
Groundwater used for drinking water	NS	NS	NS	NS	NS	NS	NS	NS	5
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	0.45	0.7	0.7	0.7	0.7	10	10	10	6
Livestock ingesting soil and fodder			NS						7
Major microbial functional impairment			NS						7
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	5
Groundwater used for livestock watering			NS						5
Groundwater used for irrigation			NS	NS	NS	NS			5,7

Notes
1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. Standards are for the sum of DDT (2,4' + 4,4" isomers), DDD (2,4' + 4,4" isomers) and DDE (2,4' + 4,4' isomers).
3. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land

use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

4. Intake pathway of exposure modelled is inadvertent ingestion of soil.
5. NS – no standard. No appropriate soil to groundwater model is available to predict the subsurface fate and transport of complex mixtures.
6. AL and PL standards are set equal to the corresponding 1999 Canadian Council of Ministers or the Environment (CCME) secondary consumer soil & food ingestion criteria. CL and IL standards are set equal to the corresponding 1999 CCME soil contact criteria. WL_N standard is derived by dividing the 1999 CCME parkland secondary consumer soil & food ingestion criterion by the Protocol 28, "2016 Standards Derivation Methods", Wildlands divisor. WL_R standard is set equal to the 1999 CCME parkland secondary consumer soil & food ingestion criterion. RL_{LD} standard is set equal to the 1999 CCME residential secondary consumer soil & food ingestion criterion. RL_{HD} standard is set equal to the 1999 CCME commercial soil contact criterion.
7. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 14 - NUMERICAL SOIL STANDARDS[1]
DIISOPROPANOLAMINE [DIPA] (CHEMICAL ABSTRACT SERVICE NUMBER 110-97-4)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	2
HUMAN HEALTH PROTECTION									
Intake of contaminated soil	30 000	30 000	15 000	30 000	15 000	30 000	100 000	> 1 000 mg/g	3
Groundwater used for drinking water	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4
ENVIRONMENTAL PROTECTION									
Toxicity to soil invertebrates and plants	600	750	750	750	750	1 000	1 000	1 000	
Livestock ingesting soil and fodder			NS						5
Major microbial functional impairment			NS						5
Groundwater flow to surface water used by aquatic life	6	6	6	6	6	6	6	6	4
Groundwater used for livestock watering			15						4
Groundwater used for irrigation			15	15	15	15			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.

4. Standards apply to a site used for an industrial or commercial purpose or activity as set out in Schedule 2 as item F2, F3, F7 or F10.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 15 - NUMERICAL SOIL STANDARDS[1]
ETHYLBENZENE (CHEMICAL ABSTRACT SERVICE NUMBER 100-41-4)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	8 500	8 500	4 000	8 500	4 000	8 500	25 000	700 000	3
Groundwater used for drinking water	15	15	15	15	15	15	15	15	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	100	200	200	200	200	650	650	650	
Livestock ingesting soil and fodder			NS						4
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life									
Freshwater	200	200	200	200	200	200	200	200	5
Marine	200	200	200	200	200	200	200	200	5
Groundwater used for livestock watering			NS						4
Groundwater used for irrigation			NS	NS	NS	NS			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from

time to time, a director's protocol or alternate methods acceptable to a director.

2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.
5. Standard has been adjusted based on a modelled leachate concentration equivalent to the substance solubility limit for use in the soil to groundwater transport model.

MATRIX 16 - NUMERICAL SOIL STANDARDS[1]
ETHYLENE GLYCOL (CHEMICAL ABSTRACT SERVICE NUMBER 107-21-1)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	150 000	150 000	85 000	150 000	85 000	150 000	500 000	> 1 000 mg/g	3
Groundwater used for drinking water	10	10	10	10	10	10	10	10	4
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	3 000	4 000	4 000	4 000	4 000	6 000	6 000	6 000	
Livestock ingesting soil and fodder			NS						5
Major microbial functional impairment			NS						5
Groundwater flow to surface water used by aquatic life	700	700	700	700	700	700	700	700	
Groundwater used for livestock watering			NS						5
Groundwater used for irrigation			NS	NS	NS	NS			5

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. Standards have been adjusted based on 2016 British Columbia Environmental Laboratory Technical Advisory Committee reference analytical detection limit for the substance.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 17 - NUMERICAL SOIL STANDARDS[1]
FLUORANTHENE (CHEMICAL ABSTRACT SERVICE NUMBER 206-44-0)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	3 500	3 500	1 500	3 500	1 500	3 500	10 000	300 000	3
Groundwater used for drinking water	NS	NS	NS	NS	NS	NS	NS	NS	4
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	30	50	50	50	50	200	200	200	5
Livestock ingesting soil and fodder			NS						6
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	4
Groundwater used for livestock watering			NS						6
Groundwater used for irrigation			NS	NS	NS	NS			6

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. NS – no standard. Soil to groundwater transport model predicts applicable water use standard for the substance will not be exceeded at the point of receptor exposure.
5. AL, PL CL and IL standards are set equal to the corresponding 2010 Canadian Council of Ministers or the Environment (CCME) soil quality criteria. WL_N standard is derived by dividing the 2010 CCME parkland soil quality criterion by the Protocol 28, "2016 Standards Derivation Methods", Wildlands divisor. WL_R standard is set equal to the 2010 CCME parkland soil quality criterion. RL_{LD} standard is set equal to the 2010 CCME residential soil quality criterion. RL_{HD} standard is set equal to the 2010 CCME commercial soil quality criterion.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 18 - NUMERICAL SOIL STANDARDS[1]
LEAD (CHEMICAL ABSTRACT SERVICE NUMBER 7439-92-1)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION									
Intake of contaminated soil	120	120	120	120	120	120	150	4 000	3
Groundwater used for drinking water									
pH < 5.5	120	120	120	120	120	120	120	120	4,5
pH 5.5 - < 6.0	150	150	150	150	150	150	150	150	4
pH 6.0 - < 6.5	800	800	800	800	800	800	800	800	4
pH 6.5 - < 7.0	3 500	3 500	3 500	3 500	3 500	3 500	3 500	3 500	4
pH 7.0 - < 7.5	7 500	7 500	7 500	7 500	7 500	7 500	7 500	7 500	4
pH ≥ 7.5	8 500	8 500	8 500	8 500	8 500	8 500	8 500	8 500	4
ENVIRONMENTAL PROTECTION									
Toxicity to soil invertebrates and plants	400	550	550	550	550	1 000	1 000	1 000	
Livestock ingesting soil and fodder			350						
Major microbial functional impairment			700						6
Groundwater flow to surface water used by aquatic life									
Freshwater									
pH < 5.0	200	200	200	200	200	200	200	200	4,7
pH 5.0 - < 5.5	350	350	350	350	350	350	350	350	4,7
pH 5.5 - < 6.0	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	4,7
pH 6.0 - < 6.5	8 500	8 500	8 500	8 500	8 500	8 500	8 500	8 500	4,7
pH 6.5 - < 7.0	35 000	35 000	35 000	35 000	35 000	35 000	35 000	35 000	4,7

pH 7.0 - < 7.5	80 000	80 000	80 000	80 000	80 000	80 000	80 000	4,7
pH ≥ 7.5	90 000	90 000	90 000	90 000	90 000	90 000	90 000	4,7
Marine								
pH < 5.5	120	120	120	120	120	120	120	4,5
pH 5.5 - < 6.0	300	300	300	300	300	300	300	4
pH 6.0 - < 6.5	1 500	1 500	1 500	1 500	1 500	1 500	1 500	4
pH 6.5 - < 7.0	6 500	6 500	6 500	6 500	6 500	6 500	6 500	4
pH ≥ 7.0	15 000	15 000	15 000	15 000	15 000	15 000	15 000	4
Groundwater used for livestock watering								
pH < 5.0			150					4
pH 5.0 - < 5.5			350					4
pH 5.5 - < 6.0			1 500					4
pH 6.0 - < 6.5			8 000					4
pH 6.5 - < 7.0			35 000					4
pH 7.0 - < 7.5			75 000					4
pH ≥ 7.5			85 000					4
Groundwater used for irrigation								
pH < 5.0			350	350	350	350		4
pH 5.0 - < 5.5			650	650	650	650		4
pH 5.5 - < 6.0			3 000	3 000	3 000	3 000		4
pH 6.0 - < 6.5			15 000	15 000	15 000	15 000		4
pH 6.5 - < 7.0			65 000	65 000	65 000	65 000		4
pH ≥ 7.0			150 000	150 000	150 000	150 000		4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil. Standards for: WL_N, WL_R, AL, PL, RL_{LD} and RL_{HD} have been adjusted based on 2016 reference Provincial background soil concentration for the substance.
4. The pH is the pH of the soil at a site.
5. Standards have been adjusted based on 2016 reference Provincial background soil concentration for the substance.

6. Standard is set equal to 1999 Canadian Council of Ministers of the Environment, Nutrient and energy cycling check value.
7. Standard varies with receiving water hardness (H). H = 200 to < 300 mg/L as $CaCO_3$ is assumed. Consult director for further advice.

MATRIX 19 - NUMERICAL SOIL STANDARDS[1]
MANGANESE (CHEMICAL ABSTRACT SERVICE NUMBER 7439-96-5)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	10 000	10 000	6 000	10 000	6 000	10 000	35 000	> 1 000 mg/g	3
Groundwater used for drinking water	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	4,5,6
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	6
Livestock ingesting soil and fodder			NS						7
Major microbial functional impairment			NS						7
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	7
Groundwater used for livestock watering			NS						7
Groundwater used for irrigation			2 000	2 000	2 000	2 000			4,5,6

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.

4. Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as
   (a) item B1,
   (b) item C1, C3 or C4,
   (c) item D2, D3, D5 or D6,
   (d) item E4, or
   (e) item H3 or H14.
5. Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as item H11 or H20 but only if the site was used for that purpose or activity in conjunction with or as a result of the site also being used for at least one of the purposes or activities set out in Note 4.
6. Standards have been adjusted based on 2016 reference Provincial background soil concentration for the substance.
7. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to use to develop a soil quality standard.

MATRIX 20 - NUMERICAL SOIL STANDARDS[1,2]
MERCURY (CHEMICAL ABSTRACT SERVICE NUMBER 7439-97-6)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	
HUMAN HEALTH PROTECTION Intake of contaminated soil	25	25	10	25	10	25	75	2 000	4
Groundwater used for drinking water	NS	NS	NS	NS	NS	NS	NS	NS	5
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	25	40	40	40	40	75	75	75	
Livestock ingesting soil and fodder			0.6						
Major microbial functional impairment			20						6
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	5
Groundwater used for livestock watering			NS						5
Groundwater used for irrigation			NS	NS	NS	NS			5

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. Analytical results for mercury (all species) in soil may be used to demonstrate compliance with the standards of this matrix.
3. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

4. Intake pathway of exposure modelled is inadvertent ingestion of soil.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to use to develop a soil quality standard.
6. Standard is set equal to 1999 Canadian Council of Ministers of the Environment, "Nutrient and energy cycling check value".

MATRIX 21 - NUMERICAL SOIL STANDARDS[1]
METHANOL (CHEMICAL ABSTRACT SERVICE NUMBER 67-56-1)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	
HUMAN HEALTH PROTECTION Intake of contaminated soil	40 000	40 000	20 000	40 000	20 000	40 000	150 000	> 1 000 mg/g	3
Groundwater used for drinking water	3	3	3	3	3	3	3	3	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	750	1 000	1 000	1 000	1 000	1 500	1 500	1 500	4
Livestock ingesting soil and fodder			NS						5
Major microbial functional impairment			NS						5
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	5
Groundwater used for livestock watering			NS						5
Groundwater used for irrigation			NS	NS	NS	NS			5

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. AL, PL, CL and IL standards are set equal to the corresponding 2016 Draft Canadian Council of Ministers of the Environment (CCME) soil quality criteria. WL_N standard is derived by dividing the 2016 CCME parkland soil quality criterion by the Protocol 28, "2016 Standards Derivation Methods", Wildlands divisor. WL_R standard is set equal to the 2016 Draft CCME parkland soil quality criterion. RL_{LD} standard is set equal to the 2016 Draft CCME residential soil quality criterion. RL_{HD} standard is set equal to the 2016 Draft CCME commercial soil quality criterion.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 22 - NUMERICAL SOIL STANDARDS[1]
MOLYBDENUM (CHEMICAL ABSTRACT SERVICE NUMBER 7439-98-7)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	400	400	200	400	200	400	1 500	35 000	3
Groundwater used for drinking water	15	15	15	15	15	15	15	15	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	60	80	80	80	80	150	150	150	
Livestock ingesting soil and fodder			NS						4
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life	650	650	650	650	650	650	650	650	
Groundwater used for livestock watering			3.5						
Groundwater used for irrigation			3	3	3	3			5,6

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.
5. Standards have been adjusted based on the 2016 reference Provincial background soil concentration for the substance.
6. Water standard for irrigation water (IW) used in the soil to groundwater transport model to derive the groundwater used for irrigation soil standard varies with crop, soil drainage and Mo:Cu ratio. An IW standard of 10 µg/L was assumed in deriving the groundwater used for irrigation soil standards. Consult a director for further advice.

MATRIX 23 - NUMERICAL SOIL STANDARDS[1]
NAPHTHALENE (CHEMICAL ABSTRACT SERVICE NUMBER 91-20-3)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	1 500	1 500	850	1 500	850	1 500	5 000	150 000	3
Groundwater used for drinking water	100	100	100	100	100	100	100	100	4
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	0.4	0.6	0.6	0.6	0.6	20	20	20	5
Livestock ingesting soil and fodder			NS						6
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life	75	75	75	75	75	75	75	75	
Groundwater used for livestock watering			NS						6
Groundwater used for irrigation			NS	NS	NS	NS			6

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. Standard has been adjusted based on a modelled leachate concentration equivalent to the substance solubility limit for use in the soil to groundwater transport model.
5. AL, PL, CL and IL standards are set equal to the corresponding 1997 Canadian Council of Ministers of the Environment (CCME) provisional soil quality criteria. WL_N standard is derived by dividing the 1997 CCME parkland provisional soil quality criterion by the Protocol 28, "2016 Standards Derivation Methods", Wildlands divisor. WL_R standard is set equal to the 1997 CCME parkland provisional soil quality criterion. RL_{LD} standard is set equal to the 1997 CCME residential provisional soil quality criterion. RL_{HD} standard is set equal to the 1997 CCME commercial provisional soil quality criterion.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 24 - NUMERICAL SOIL STANDARDS[1]
NICKEL (CHEMICAL ABSTRACT SERVICE NUMBER 7440-02-0)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION									
Intake of contaminated soil	900	900	450	900	450	900	3 000	80 000	3
Groundwater used for drinking water									
pH < 7.5	70	70	70	70	70	70	70	70	4,5
pH 7.5 - < 8.0	250	250	250	250	250	250	250	250	4
pH ≥ 8.0	500	500	500	500	500	500	500	500	4
ENVIRONMENTAL PROTECTION									
Toxicity to soil invertebrates and plants	100	150	150	150	150	250	250	250	
Livestock ingesting soil and fodder			250						
Major microbial functional impairment			150						6
Groundwater flow to surface water used by aquatic life									
Freshwater									
pH < 5.0	90	90	90	90	90	90	90	90	4,7
pH 5.0 - < 5.5	100	100	100	100	100	100	100	100	4,7
pH 5.5 - < 6.0	150	150	150	150	150	150	150	150	4,7
pH 6.0 - < 6.5	200	200	200	200	200	200	200	200	4,7
pH 6.5 - < 7.0	300	300	300	300	300	300	300	300	4,7
pH 7.0 - < 7.5	900	900	900	900	900	900	900	900	4,7
pH 7.5 - < 8.0	5 000	5 000	5 000	5 000	5 000	5 000	5 000	5 000	4,7
pH ≥ 8.0	9 500	9 500	9 500	9 500	9 500	9 500	9 500	9 500	4,7

Marine									
pH < 7.5	70	70	70	70	70	70	70	70	4,5
pH 7.5 - < 8.0	250	250	250	250	250	250	250	250	4
pH ≥ 8.0	500	500	500	500	500	500	500	500	4
Groundwater used for livestock watering									
pH < 5.0			70						4,5
pH 5.0 - < 5.5			80						4
pH 5.5 - < 6.0			100						4
pH 6.0 - < 6.5			150						4
pH 6.5 - < 7.0			200						4
pH 7.0 - < 7.5			600						4
pH 7.5 - < 8.0			3 500						4
pH ≥ 8.0			6 500						4
Groundwater used for irrigation									
pH < 7.0			70	70	70	70			4,5
pH 7.0 - < 7.5			100	100	100	100			4
pH 7.5 - < 8.0			650	650	650	650			4
pH ≥ 8.0			1 500	1 500	1 500	1 500			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. The pH is the pH of the soil at a site.
5. Standards have been adjusted based on 2016 reference Provincial background soil concentration for the substance.
6. Standard is set equal to 2015 Canadian Council of Ministers of the Environment, Nutrient and energy cycling check value.
7. Standard varies with receiving water hardness (H). H > 180 mg/L as $CaCO_3$ is assumed. Consult director for further advice.

MATRIX 25 - NUMERICAL SOIL STANDARDS[1,2]
NONYLPHENOL AND NONYLPHENOL ETHOXLATES
(CHEMICAL ABSTRACT SERVICE NUMBER 84852-15-3)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	3
HUMAN HEALTH PROTECTION Intake of contaminated soil	400	400	200	400	200	400	1 000	35 000	4
Groundwater used for drinking water	20	20	20	20	20	20	20	20	5
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	3.5	5.5	5.5	5.5	5.5	15	15	15	6
Livestock ingesting soil and fodder			NS						7
Major microbial functional impairment			NS						7
Groundwater flow to surface water used by aquatic life									
Freshwater	4	4	4	4	4	4	4	4	5
Marine	3	3	3	3	3	3	3	3	5
Groundwater used for livestock watering			NS						7
Groundwater used for irrigation			NS	NS	NS	NS			7

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. Nonylphenol includes related nonylphenolic and octylphenolic compounds, including ethoxylates and ethoxycarboxylates. Consult a director for further advice.
3. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
4. Intake pathway of exposure modelled is inadvertent ingestion of soil.
5. Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as
   (a) item A6, A8, A10 or A12,
   (b) item H11, H18 or H19, or
   (c) item I2 or I3.
6. AL, PL, CL and IL standards are set equal to the corresponding 2002 Canadian Council of Ministers of the Environment (CCME) soil quality criteria. WL_N standard is derived by dividing the 2002 CCME parkland soil quality criterion by the Protocol 28, "2016 Standards Derivations Methods", Wildlands divisor. WL_R standard is set equal to the 2002 CCME parkland soil quality criterion. RL_{LD} standard is set equal to the 2002 CCME residential soil quality criterion. RL_{HD} standard is set equal to the 2002 CCME commercial soil quality criterion.
7. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 26 - NUMERICAL SOIL STANDARDS[1]
PENTACHLOROPHENOL [PCP] (CHEMICAL ABSTRACT SERVICE NUMBER 87-86-5)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION									
Intake of contaminated soil	200	200	90	200	90	200	550	900	3
Groundwater used for drinking water									
pH < 5.0	300	300	300	300	300	300	300	300	4,5
pH 5.0 - < 5.5	200	200	200	200	200	200	200	200	4,5
pH 5.5 - < 6.0	75	75	75	75	75	75	75	75	4
pH 6.0 - < 6.5	9	9	9	9	9	9	9	9	4
pH 6.5 - < 7.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4
pH ≥ 7.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4
ENVIRONMENTAL PROTECTION									
Toxicity to soil invertebrates and plants	10	25	25	25	25	55	55	55	
Livestock ingesting soil and fodder			NS						6
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life									
pH < 5.0	300	300	300	300	300	300	300	300	4,5,7
pH 5.0 - < 5.5	150	150	150	150	150	150	150	150	4,7
pH 5.5 - < 6.0	2	2	2	2	2	2	2	2	4,7
pH 6.0 - < 6.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	4,7
pH ≥ 6.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	4,7

Groundwater used for livestock watering									
pH < 5.0			300						4,5
pH 5.0 - < 5.5			200						4,5
pH 5.5 - < 6.0			65						4
pH 6.0 - < 6.5			4.5						4
pH 6.5 - < 7.0			1.5						4
pH ≥ 7.0			0.75						4
Groundwater used for irrigation			NS	NS	NS	NS			6

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. The pH is the pH of the soil at a site.
5. Standard has been adjusted based on a modelled leachate concentration equivalent to the substance solubility limit for use in the soil to groundwater transport model.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.
7. Water standard for aquatic life (AW) used in the soil to groundwater transport model to derive the groundwater flow to surface water used by aquatic life soil standards varies with the temperature of the surface water used by aquatic life. A surface water temperature of 20°C was assumed in deriving the groundwater flow to surface water used by aquatic life soil standard. Consult a director for further advice.

MATRIX 27 - NUMERICAL SOIL STANDARDS[1]
PERFLUOROOCTANE SULFONATE [PFOS] (CHEMICAL ABSTRACT SERVICE NUMBER 1763-23-1)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	2.5	2.5	1	2.5	1	2.5	7.5	200	3
Groundwater used for drinking water	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	4
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	40	70	70	70	70	150	150	150	
Livestock ingesting soil and fodder			NS						5
Major microbial functional impairment			NS						5
Groundwater flow to surface water used by aquatic life	9	9	9	9	9	9	9	9	4,6
Groundwater used for livestock watering			NS						5
Groundwater used for irrigation			NS	NS	NS	NS			5

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.

4. Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as
   (a) item A4,
   (b) item C3,
   (c) item E10, or
   (d) item G1.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.
6. Standard has been adjusted based on a modelled leachate concentration equivalent to the substance solubility limit for use in the soil to groundwater transport model.

MATRIX 28 - NUMERICAL SOIL STANDARDS[1]
PHENOL (CHEMICAL ABSTRACT SERVICE NUMBER 108-95-2)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	25 000	25 000	10 000	25 000	10 000	25 000	75 000	> 1 000 mg/g	3
Groundwater used for drinking water	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	80	150	150	150	150	200	200	200	
Livestock ingesting soil and fodder			NS						4
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life	15	15	15	15	15	15	15	15	
Groundwater used for livestock watering			NS						4
Groundwater used for irrigation			NS	NS	NS	NS			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.

4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 29 - NUMERICAL SOIL STANDARDS[1,2]
POLYCHLORINATED BIPHENYLS, TOTAL [PCBs]
(CHEMICAL ABSTRACT SERVICE NUMBER 1336-36-3)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	
HUMAN HEALTH PROTECTION Intake of contaminated soil	10	10	5	10	5	10	35	900	4
Groundwater used for drinking water	NS	NS	NS	NS	NS	NS	NS	NS	5
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	0.8	1.5	1.5	1.5	1.5	35	35	35	6
Livestock ingesting soil and fodder			NS						5
Major microbial functional impairment			NS						5
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	5
Groundwater used for livestock watering			NS						5
Groundwater used for irrigation			NS	NS	NS	NS			5

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. PCBs, total in soil represent the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268. Dioxin-like polychlorinated biphenyls must also be evaluated as polychlorinated dioxins and furans.
3. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land

use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

4. Intake pathway of exposure modelled is inadvertent ingestion of soil.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.
6. AL and PL standards are set equal to the corresponding 1999 Canadian Council of Ministers of the Environment (CCME) tertiary consumer soil & food ingestion criteria. CL and IL standards are set equal to the corresponding 1999 CCME soil contact criteria. WL_N standard is derived by dividing the 1999 CCME parkland tertiary consumer soil & food ingestion criterion by the Protocol 28, "2016 Standards Derivations Methods", Wildlands divisor. WL_R standard is set equal to the 1999 CCME parkland tertiary consumer soil & food ingestion criterion. RL_{LD} standard is set equal to the 1999 CCME residential tertiary consumer soil & food ingestion criterion. RL_{HD} standard is set equal to the 1999 CCME commercial soil contact criterion.

MATRIX 30 - NUMERICAL SOIL STANDARDS[1,2]
POLYCHLORINATED DIOXINS AND FURANS, TOTAL [PCDDs AND PCDFs]
(CHEMICAL ABSTRACT SERVICE NUMBER 1746-01-6)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	
HUMAN HEALTH PROTECTION Intake of contaminated soil	0.0002	0.0002	0.000095	0.0002	0.000095	0.0002	0.0006	0.015	4
Groundwater used for drinking water	NS	NS	NS	NS	NS	NS	NS	NS	5
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	0.00065	0.001	0.00001	0.001	0.001	0.0025	0.0025	0.0025	6
Livestock ingesting soil and fodder			NS						5
Major microbial functional impairment			NS						5
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	5
Groundwater used for livestock watering			NS						5
Groundwater used for irrigation			NS	NS	NS	NS			5

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. Polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) expressed as 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) toxicity equivalent includes those substances for which 2005 World Health Organization, International Programme on Chemical Safety, 2,3,7,8-TCDD Toxicity Equivalency Factors (IPCS-TEFs) are provided below:

WHO, 2005 2,3,7,8-TCDD Toxicity Equivalency Factors (IPCS-TEFs) for Dioxins, Furans and Dioxin-like Polychlorinated Biphenyls (PCBs)

Polychlorinated dibenzo-p-dioxins	IPCS-TEF	Polychlorinated dibenzofurans	IPCS-TEF
2,3,7,8-T_4CDD	1.0	2,3,7,8-T_4CDF	0.1
1,2,3,7,8-P_5CDD	1.0	1,2,3,7,8-P_5CDF	0.03
1,2,3,4,7,8-H_6CDD	0.1	2,3,4,7,8-P_5CDF	0.3
1,2,3,6,7,8-H_6CDD	0.1	1,2,3,4,7,8-H_6CDF	0.1
1,2,3,7,8,9-H_6CDD	0.1	1,2,3,6,7,8-H_6CDF	0.1
1,2,3,4,6,7,8,-H_7CDD	0.01	1,2,3,7,8,9-H_6CDF	0.1
O_8CDD	0.0003	2,3,4,6,7,8-H_6CDF	0.1
		1,2,3,4,6,7,8-H_7CDF	0.01
		1,2,3,4,7,8,9-H_7CDF	0.01
		O_8CDF	0.0003

Non-*ortho* substituted PCBs	IPCS-TEF	Mono-*ortho* substituted PCBs	IPCS-TEF
3,3',4,4'- T_4CB (PCB 77)	0.0001	2,3,3',4,4'-P_5CB (PCB 105)	0.00003
3,4,4',5- T_4CB (PCB 81)	0.0003	2,3,4,4',5-P_5CB (PCB 114)	0.00003
3,3',4,4',5-P_5CB (PCB 126)	0.1	2,3',4,4',5-P_5CB (PCB 118)	0.00003
3,3',4,4',5,5'-H_6CB (PCB 169)	0.03	2',3,4,4',5-H_6CB (PCB 123)	0.00003
		2,3,3',4,4',5-H_6CB (PCB 156)	0.00003
		2,3,3',4,4',5'-H_6CB (PCB 157)	0.00003
		2,3',4,4',5,5'-H_6CB (PCB 167)	0.00003
		2,3,3',4,4',5,5'-H_7CB (PCB 189)	0.00003

3. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
4. Intake pathway of exposure modelled is inadvertent ingestion of soil.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.
6. AL, PL, CL and IL standards are set equal to the corresponding 1991 Canadian Council of Ministers of the Environment (CCME) interim soil quality criteria. WL_N standard is

derived by dividing the 1991 CCME interim parkland soil quality criterion by the Protocol 28, "2016 Standards Derivations Methods", Wildlands divisor. WL_R standard is set equal to the 1991CCME interim parkland soil quality criterion. RL_{LD} standard is set equal to the 1991 CCME interim residential soil quality criterion. RL_{HD} standard is set equal to the 1991 CCME interim commercial soil quality criterion.

MATRIX 31 - NUMERICAL SOIL STANDARDS[1]
SELENIUM (CHEMICAL ABSTRACT SERVICE NUMBER 7782-49-2)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	
HUMAN HEALTH PROTECTION Intake of contaminated soil	400	400	200	400	200	400	1 500	35 000	3
Groundwater used for drinking water	1	1	1	1	1	1	1	1	4
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	1.5	1.5	1.5	1.5	1.5	2	2	2	
Livestock ingesting soil and fodder			2						
Major microbial functional impairment			NS						5
Groundwater flow to surface water used by aquatic life	1	1	1	1	1	1	1	1	4
Groundwater used for livestock watering			1						4
Groundwater used for irrigation			1	1	1	1			6

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. Standards have been adjusted based on 2016 reference Provincial background soil concentration for the substance.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to use to develop a soil quality standard.
6. Standard applies where irrigation water is used for continuous or intermittent irrigation of crops.

MATRIX 32 - NUMERICAL SOIL STANDARDS[1]
SODIUM ION (CHEMICAL ABSTRACT SERVICE NUMBER 17341-25-2)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	
HUMAN HEALTH PROTECTION Intake of contaminated soil	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	> 1 000 mg/g	3
Groundwater used for drinking water	15 000	15 000	15 000	15 000	15 000	15 000	15 000	15 000	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	150	200	200	200	200	1 000	1 000	1 000	
Livestock ingesting soil and fodder			NS						4
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	4
Groundwater used for livestock watering			NS						4
Groundwater used for irrigation			NS	NS	NS	NS			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated FROM time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.

4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 33 - NUMERICAL SOIL STANDARDS[1]
SULFOLANE (CHEMICAL ABSTRACT SERVICE NUMBER 126-33-0)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	800	800	400	800	400	800	2 500	70 000	3
Groundwater used for drinking water	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	4,5
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	250	350	350	350	350	500	500	500	
Livestock ingesting soil and fodder			NS						6
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life	200	200	200	200	200	200	200	200	4
Groundwater used for livestock watering			5.5						4
Groundwater used for irrigation			3	3	3	3			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as item F2, F3, F7 or F10.
5. Standard has been adjusted based on the 2016 British Columbia Environmental Laboratory Technical Advisory Committee reference analytical detection limit for the substance.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 34 - NUMERICAL SOIL STANDARDS[1]
TETRACHLOROETHYLENE (CHEMICAL ABSTRACT SERVICE NUMBER 127-18-4)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	500	500	250	500	250	500	1 500	40 000	3
Groundwater used for drinking water									
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	6	15	15	15	15	30	30	30	
Livestock ingesting soil and fodder			NS						4
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Groundwater used for livestock watering			NS						4
Groundwater used for irrigation			NS	NS	NS	NS			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 35 - NUMERICAL SOIL STANDARDS[1]
TOLUENE (CHEMICAL ABSTRACT SERVICE NUMBER 108-88-3)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	6 500	6 500	3 500	6 500	3 500	6 500	20 000	550 000	3
Groundwater used for drinking water	6	6	6	6	6	6	6	6	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	90	150	150	150	150	450	450	450	
Livestock ingesting soil and fodder			NS						4
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life									
Freshwater	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Marine	200	200	200	200	200	200	200	200	
Groundwater used for livestock watering			NS						4
Groundwater used for irrigation			NS	NS	NS	NS			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.

2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 36 - NUMERICAL SOIL STANDARDS[1]
TRICHLOROETHYLENE (CHEMICAL ABSTRACT SERVICE NUMBER 79-01-6)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**	
HUMAN HEALTH PROTECTION Intake of contaminated soil	40	40	20	40	20	40	150	3 500	3
Groundwater used for drinking water									
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	8	15	15	15	15	25	25	25	
Livestock ingesting soil and fodder			NS						4
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
Groundwater used for livestock watering									
Groundwater used for irrigation			NS	NS	NS	NS			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.

4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 37 - NUMERICAL SOIL STANDARDS[1]
URANIUM (CHEMICAL ABSTRACT SERVICE NUMBER 7440-61-1)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	
HUMAN HEALTH PROTECTION Intake of contaminated soil	250	250	100	250	100	250	750	20 000	3
Groundwater used for drinking water	30	30	30	30	30	30	30	30	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	300	500	500	500	500	2 000	2 000	2 000	4
Livestock ingesting soil and fodder			35						5
Major microbial functional impairment			NS						6
Groundwater flow to surface water used by aquatic life	150	150	150	150	150	150	150	150	
Groundwater used for livestock watering			300						
Groundwater used for irrigation			15	15	15	15			

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. AL, PL, CL and IL standards are set equal to corresponding 2007 Canadian Council of Ministers of the Environment (CCME) soil contact criteria. WL_N standard is derived by dividing the 2007 CCME parkland soil contact criterion by the Protocol 28, "2016 Standards Derivation Methods", Wildlands divisor. WL_R standard is set equal to 2007 CCME parkland soil contact criterion. RL_{LD} standard is set equal to the 2007 CCME residential soil contact criterion. RL_{HD} standard is set equal to the 2007 CCME commercial soil contact criterion.
5. Standard is set equal to the 2007 CCME agricultural soil & food ingestion criterion.
6. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 38 - NUMERICAL SOIL STANDARDS[1]
VANADIUM (CHEMICAL ABSTRACT SERVICE NUMBER 7440-62-2)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	400	400	200	400	200	400	1 500	35 000	3
Groundwater used for drinking water	100	100	100	100	100	100	100	100	4
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	100	150	150	150	150	300	300	300	
Livestock ingesting soil and fodder			NS						5
Major microbial functional impairment			250						6
Groundwater flow to surface water used by aquatic life	NS	NS	NS	NS	NS	NS	NS	NS	5
Groundwater used for livestock watering			350						
Groundwater used for irrigation			350	350	350	350			

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.

4. Standards have been adjusted based on the 2016 reference Provincial background soil concentration for the substance.
5. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.
6. Standard is set equal to 1997 Canadian Council of Ministers of the Environment, "Nutrient and energy cycling check value".

MATRIX 39 - NUMERICAL SOIL STANDARDS[1]
XYLENES (CHEMICAL ABSTRACT SERVICE NUMBER 1330-20-7)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	15 000	15 000	8 500	15 000	8 500	15 000	50 000	> 1 000 mg/g	3
Groundwater used for drinking water	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	100	150	150	150	150	600	600	600	
Livestock ingesting soil and fodder			NS						4
Major microbial functional impairment			NS						4
Groundwater flow to surface water used by aquatic life	20	20	20	20	20	20	20	20	
Groundwater used for livestock watering			NS						4
Groundwater used for irrigation			NS	NS	NS	NS			4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.

4. NS – no standard. Insufficient acceptable scientific data exists to calculate a standard, or no appropriate standard, guideline or criterion exists to develop a soil quality standard.

MATRIX 40 - NUMERICAL SOIL STANDARDS[1]
ZINC (CHEMICAL ABSTRACT SERVICE NUMBER 7440-66-6)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	Note
Site-specific Factor	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)	2
HUMAN HEALTH PROTECTION Intake of contaminated soil	25 000	25 000	10 000	25 000	10 000	25 000	75 000	> 1 000 mg/g	3
Groundwater used for drinking water									
pH < 5.0	200	200	200	200	200	200	200	200	4
pH 5.0 - < 5.5	250	250	250	250	250	250	250	250	4
pH 5.5 - < 6.0	300	300	300	300	300	300	300	300	4
pH 6.0 - < 6.5	450	450	450	450	450	450	450	450	4
pH 6.5 - < 7.0	600	600	600	600	600	600	600	600	4
pH 7.0 - < 7.5	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	4
pH 7.5 - < 8.0	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000	4
pH ≥ 8.0	5 500	5 500	5 500	5 500	5 500	5 500	5 500	5 500	4
ENVIRONMENTAL PROTECTION Toxicity to soil invertebrates and plants	300	450	450	450	450	450	450	450	
Livestock ingesting soil and fodder			200						
Major microbial functional impairment			200						5
Groundwater flow to surface water used by aquatic life									
Freshwater									
pH < 6.0	150	150	150	150	150	150	150	150	4,6,7
pH 6.0 - < 6.5	250	250	250	250	250	250	250	250	4,7
pH 6.5 - < 7.0	350	350	350	350	350	350	350	350	4,7

pH 7.0 - < 7.5	600	600	600	600	600	600	600	4,7
pH 7.5 - < 8.0	1 500	1 500	1 500	1 500	1 500	1 500	1 500	4,7
pH ≥ 8.0	3 000	3 000	3 000	3 000	3 000	3 000	3 000	4,7
Marine								
pH < 8.0	150	150	150	150	150	150	150	4,6
pH ≥ 8.0	200	200	200	200	200	200	200	4
Groundwater used for livestock watering								
pH < 5.5			150					4,6
pH 5.5 - < 6.0			200					4
pH 6.0 - < 6.5			300					4
pH 6.5 - < 7.0			400					4
pH 7.0 - < 7.5			750					4
pH 7.5 - < 8.0			2 000					4
pH ≥ 8.0			3 500					4
Groundwater used for irrigation								
pH < 6.0			150	150	150	150		4,6
pH 6.0 - < 6.5			300	300	300	300		4
pH 6.5 - < 7.0			400	400	400	400		4
pH 7.0 - < 7.5			2 000	2 000	2 000	2 000		4
pH 7.5 - < 8.0			5 000	5 000	5 000	5 000		4
pH ≥ 8.0			9 000	9 000	9 000	9 000		4

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director.
2. The site-specific factors of human intake of contaminated soil and toxicity to soil invertebrates and plants specified in this matrix apply at all sites. The high density residential land use standards of this matrix assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
3. Intake pathway of exposure modelled is inadvertent ingestion of soil.
4. The pH is the pH of the soil at a site.
5. Standard is set equal to 1999 Canadian Council of Ministers of the Environment, Nutrient and energy cycling check value.
6. Standards have been adjusted based on 2016 reference Provincial background soil concentration for the substance.
7. Standard varies with receiving water hardness (H). H = 200 to < 300 mg/L as $CaCO_3$ is assumed. Consult director for further advice.

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number (CAS)**	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**
acenaphthene	83-32-9	2 000	2 000	950	2 000	950	2 000	15 000	15 000
acephate	30560-19-1	100	100	60	100	60	100	950	950
acetic acid, 2-methyl-4-chlorophenoxy- [MCPA]	94-74-6	15	15	8	15	8	15	100	100
acetochlor	34256-82-1	650	650	300	650	300	650	4 500	4 500
acetone	67-64-1	30 000	30 000	15 000	30 000	15 000	30 000	200 000[3,4]	200 000[3,4]
acetophenone	98-86-2	3 000[3]	3 000[3]	1 500[3]	3 000[3]	1 500	3 000	25 000[3,4]	25 000[3]
acrolein	107-02-8	15	15	8	15	8	15	100	100
acrylamide	79-06-1	6	6	3	6	3	6	65	65
acrylic acid	79-10-7	15 000	15 000	8 000	15 000	8 000	15 000	100 000	100 000
acrylonitrile	107-13-1	25	25	15	25	15	25	60	60
adipic acid	124-04-9	65 000[4]	65 000[4]	30 000[4]	65 000[4]	30 000	65 000	450 000[4]	450 000
alachlor	15972-60-8	250	250	100	250	100	250	600	600
aldicarb	116-06-3	30	30	15	30	15	30	250	250
aldicarb sulfone	1646-88-4	30	30	15	30	15	30	250	250
aldrin	309-00-2	0.8	0.8	0.4	0.8	0.4	0.8	2	2
allyl alcohol	107-18-6	150	150	80	150	80	150	1 000	1 000
allyl chloride	107-05-1	650	650	350	650	350	650	1 500	1 500
aluminum	7429-90-5	40 000	40 000	40 000	40 000	40 000	40 000	250 000[4]	250 000
ametryn	834-12-8	300	300	150	300	150	300	2 000	2 000
aminobiphenyl, 4-	92-67-1	0.65	0.65	0.35	0.65	0.35	0.65	1.5	1.5
aminophenol, 3-	591-27-5	2 500	2 500	1 500	2 500	1 500	2 500	20 000	20 000
aminophenol, 4-	123-30-8	650	650	300	650	300	650	4 500	4 500
amitraz	33089-61-1	80	80	40	80	40	80	600	600
aniline	62-53-3	200	200	100	200	100	200	1 500	1 500
anthraquinone, 9,10-	84-65-1	65	65	30	65	30	65	450	450
antimony	7440-36-0	500[5]	500	250	500	250	500	1 500	40 000
aramite	140-57-8	550	550	300	550	300	550	1 500	1 500

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)
asbestos	1332-21-4	1%[6]	1%	1%	1%	1%	1%	1%	1%
asulam	3337-71-1	1 500	1 500	800	1 500	800	1 500	10 000	10 000
atrazine	1912-24-9	60	60	30	60	30	60	150	150
auramine	492-80-8	15	15	8	15	8	15	35	35
avermectin B1 (a + b)	71751-41-2	10	10	6	10	6	10	95	95
azinphos-methyl	86-50-0	90	90	45	90	45	90	700	700
azobenzene	103-33-3	150	150	65	150	65	150	300	300
azodicarbonamide	123-77-3	30 000	30 000	15 000	30 000	15 000	30 000	250 000	250 000
benfluralin	1861-40-1	9 000	9 000	4 500	9 000	4 500	9 000	70 000[4]	70 000
benomyl	17804-35-2	1 500	1 500	800	1 500	800	1 500	10 000	10 000
bensulfuron-methyl	83055-99-6	6 500	6 500	3 000	6 500	3 000	6 500	45 000[4]	45 000
bentazon	25057-89-0	900	900	450	900	450	900	7 000	7 000
benz(a)anthracene	56-55-3	95[7]	95[5]	50[5]	95[5]	50[5]	95[5]	300[5]	500[5]
benzidine	92-87-5	0.015	0.015	0.0065	0.015	0.0065	0.015	0.15	0.15
benzo(b+j)fluoranthenes	205-99-2 & 205-82-3	95[5]	95[5]	50[5]	95[5]	50[5]	95[5]	300[5]	500[5]
benzo(k)fluoranthene	207-08-9	95[5]	95[5]	50[5]	95[5]	50[5]	95[5]	300[5]	500[5]
benzoic acid	65-85-0	100 000[4]	100 000[4]	60 000[4]	100 000[4]	60 000	100 000	950 000[4]	950 000
benzotrichloride	98-07-7	1	1	0.55	1	0.55	1	2.5	2.5
benzyl alcohol	100-51-6	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
benzyl chloride	100-44-7	65	65	30	65	30	65	200	200
bifenox	42576-02-3	300	300	150	300	150	300	2 000	2 000
bifenthrin	82657-04-3	500	500	250	500	250	500	3 500	3 500
biphenyl, 1,1'-	92-52-4	15 000	15 000	8 000	15 000	8 000	15 000	100 000	100 000
bis(2-chloroethoxy) methane	111-91-1	90	90	45	90	45	90	700	700
bis(2-chloroethyl) ether	111-44-4	2.5	2.5	1.5	2.5	1.5	2.5	6	6
bis(2-chloro-1-methylethyl) ether	108-60-1	1 000	1 000	600	1 000	600	1 000	9 500	9 500

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number** (CAS)	**Wildlands Natural** (WL_N)	**Wildlands Reverted** (WL_R)	**Agricultural** (AL)	**Urban Park** (PL)	**Residential Low Density** (RL_{LD})	**Residential High Density** (RL_{HD})	**Commercial** (CL)	**Industrial** (IL)
bis(2-ethylhexyl) adipate	103-23-1	10 000	10 000	6 000	10 000	6 000	10 000	25 000	25 000
bis(2-ethylhexyl) phthalate [DEHP]	117-81-7	350	350	150	350	150	350	1 000	30 000
bisphenol A	80-05-7	1 500	1 500	800	1 500	800	1 500	10 000	10 000
boron	7440-42-8	15 000	15 000	8 500	15 000	8 500	15 000	50 000	> 1 000 mg/g
bromate	15541-45-4	20	20	10	20	10	20	45	45
bromo-2-chloroethane, 1-	107-04-0	7	7	3.5	7	3.5	7	15	15
bromobenzene	108-86-1	250	250	150	250	150	250	2 000[3]	2 000
bromodichloromethane	75-27-4	200	200	100	200	100	200	550	550
bromoform	75-25-2	650	650	300	650	300	650	4 000	4 000
bromomethane	74-83-9	45	45	20	45	20	45	300	300
bromophos	2104-96-3	150	150	80	150	80	150	1 000	1 000
bromoxynil	1689-84-5	650	650	300	650	300	650	4 500	4 500
butadiene, 1,3-	106-99-0	4	4	2	4	2	4	9.5	9.5
butanoic acid, 4-(4-chloro-2-methylphenoxy)- [MCPB]	94-81-5	300	300	150	300	150	300	2500	2500
butanol, 2-	78-92-2	65 000	65 000	30 000	65 000	30 000[5]	65 000[5]	450 000	450 000
butanol, n-	71-36-3	3 000[3]	3 000[3]	1 500[3]	3 000[3]	1 500	3 000	25 000[3,4]	25 000[5]
butoxy ethanol, 2-	111-76-2	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
butyl benzyl phthalate	85-68-7	6 500	6 500	3 000	6 500	3 000	6 500	15 000	15 000
butyl phthalyl butyl glycolate	85-70-1	30 000	30 000	15 000	30 000	15 000	30 000	250 000[4]	250 000
butylate	2008-41-5	1 500	1 500	800	1 500	800	1 500	10 000	10 000
butylated hydroxytoluene [BHT]	128-37-0	4 000	4 000	2 000	4 000	2 000	4 000	9 000	9 000
butylbenzene, n-	104-51-8	1 500[3]	1 500[3]	800[3]	1 500[3]	800	1 500	10 000[3]	10 000
butylbenzene, sec-	135-98-8	3 000[3]	3 000[3]	1 500[3]	3 000[3]	1 500	3 000	25 000[3,4]	25 000[5]
butylbenzene, tert-	98-06-6	3 000[3]	3 000[3]	1 500[3]	3 000[3]	1 500	3 000	25 000[3,4]	25 000[5]
cacodylic acid	75-60-5	650	650	300	650	300	650	4500	4500

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)
caprolactam	105-60-2	15 000	15 000	8 000	15 000	8 000	15 000	100 000[4]	100 000
captafol	2425-06-1	65	65	30	65	30	65	200	200
captan	133-06-2	4 000	4 000	2 000	4 000	2 000	4 000	15 000	15 000
carbaryl	63-25-2	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
carbofuran	1563-66-2	150	150	80	150	80	150	1 000	1 000
carbon disulfide	75-15-0	3 000[3]	3 000[3]	1 500[3]	3 000[3]	1 500	3 000	25 000[3]	25 000
carbon tetrachloride	56-23-5	350	350	150	350	150	350	1 000	5 000
carbosulfan	55285-14-8	300	300	150	300	150	300	2 500	2 500
carboxin	5234-68-4	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
chloramben	133-90-4	500	500	250	500	250	500	3 500	3 500
chloranil	118-75-2	35	35	15	35	15	35	80	80
chlordane (cis + trans)	5103-71-9 & 5103-74-2	15	15	8	15	8	15	95	95
chlordecone	143-50-0	1.5	1.5	0.7	1.5	0.7	1.5	3.5	3.5
chlorfenvinphos	470-90-6	20	20	10	20	10	20	150	150
chlorimuron, ethyl	90982-32-4	650	650	300	650	300	650	4 500	4 500
chloro-2-methylaniline, 4-	95-69-2	90	90	45	90	45	90	350	350
chloroacetaldehyde, 2-	107-20-0	50	50	25	50	25	50	100	100
chloroaniline, p-	106-47-8	70	70	35	70	35	70	150	150
chlorobenzene	108-90-7	1 500	1 500	850	1 500	850	1 500	5 000	150 000
chlorobenzilate	510-15-6	150	150	65	150	65	150	300	300
chlorobenzoic acid, 4-	74-11-3	900	900	450	900	450	900	7 000	7 000
chlorobenzotrichloride, 4-	5216-25-1	0.7	0.7	0.35	0.7	0.35	0.7	1.5	1.5
chlorobenzotrifluoride, 4-	98-56-6	90	90	45	90	45	90	700[3]	700
chlorobutane, 1-	109-69-3	1 000[3]	1 000[3]	600[3]	1 000[3]	600	1 000	9 500[3]	9 500
chloroethanol, 2-	107-07-3	650	650	300	650	300	650	4 500	4 500
chloroform	67-66-3	850	850	400	850	400	850	2 500	70 000
chloronaphthalene, 2-	91-58-7	2 500	2 500	1 500	2 500	1 500	2 500	20 000	20 000

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number (CAS)**	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**
chloronitrobenzene, 2-	88-73-3	45	45	25	45	25	45	100	100
chloronitrobenzene, 4-	100-00-5	30	30	15	30	15	30	250	250
chlorophenol, 2-	95-57-8	400	400	200	400	200	400	1 500	35 000
chlorophenol,3-	108-43-0	250[8]	250[9]	100[9]	250[9]	100[9]	250[9]	750[9]	20 000[9]
chlorophenol, 4-	106-48-9	250[9]	250[9]	100[9]	250[9]	100[9]	250[9]	750[9]	20 000[9]
chloroprene	126-99-8	650	650	300	650	300	650	4 500	4 500
chlorothalonil	1897-45-6	500	500	250	500	250	500	3 500	3 500
chlorotoluene, 2-	95-49-8	650[3]	650[3]	300[3]	650[3]	300	650	4 500[3]	4 500
chlorotoluene, 4-	106-43-4	650[3]	650[3]	300[3]	650[3]	300	650	4 500[3]	4 500
chlorpropham	101-21-3	6 500	6 500	3 000	6 500	3 000	6 500	45 000[4]	45 000
chlorpyrifos	2921-88-2	30	30	15	30	15	30	250	250
chlorpyrifos-methyl	5598-13-0	300	300	150	300	150	300	2 500	2 500
chlorsulfuron	64902-72-3	1 500	1 500	800	1 500	800	1 500	10 000	10 000
chlorthal-dimethyl	1861-32-1	300	300	150	300	150	300	2 500	2 500
chlorthiophos	60238-56-4	25	25	15	25	15	25	200	200
chrysene	218-01-9	400	400	200	400	200	400	4 500	4 500
clofentezine	74115-24-5	400	400	200	400	200	400	3 000	3 000
crotonaldehyde, trans-	123-73-9	7.5	7.5	3.5	7.5	3.5	7.5	15	15
cyanazine	21725-46-2	15	15	8.5	15	8.5	15	40	40
cyanogen	460-19-5	30	30	15	30	15	30	250	250
cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	600	600	300	600	300	600	1 500	1 500
cyclohexanone	108-94-1	150 000[3]	150 000[3]	80 000[3]	150 000[3]	80 000	150 000	1 000 000[3,4]	1 000 000[9]
cyclohexene	110-83-8	150[3]	150[3]	80[3]	150[3]	80	150	1 000	1 000
cyclohexylamine	108-91-8	6 500	6 500	3 000	6 500	3 000	6 500	45 000[4]	45 000
cyfluthrin	68359-37-5	800	800	400	800	400	800	6 000	6 000
cyhalothrin	68085-85-8	150	150	80	150	80	150	1 000	1 000
cypermethrin	52315-07-8	300	300	150	300	150	300	2 500	2 500

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number** (CAS)	**Wildlands Natural** (WL_N)	**Wildlands Reverted** (WL_R)	**Agricultural** (AL)	**Urban Park** (PL)	**Residential Low Density** (RL_{LD})	**Residential High Density** (RL_{HD})	**Commercial** (CL)	**Industrial** (IL)
cyromazine	66215-27-8	250	250	100	250	100	250	2 000	2 000
dalapon	75-99-0	900	900	450	900	450	900	7 000	7 000
daminozide	1596-84-5	800	800	400	800	400	800	2 000	2 000
demeton	8065-48-3	1	1	0.6	1	0.6	1	9.5	9.5
diallate	2303-16-4	200	200	100	200	100	200	550	550
diaminotoluene, 2,5-	95-70-5	6.5	6.5	3	6.5	3	6.5	45	45
diazinon	333-41-5	20	20	10	20	10	20	150	150
dibenz(a,h)anthracene	53-70-3	10[3]	10[3]	5[3]	10[3]	5[3]	10[3]	30[3]	50[3]
dibenzo(a,e)pyrene	192-65-4	1	1	0.6	1	0.6	1	2.5	2.5
dibenzofuran	132-64-9	30	30	15	30	15	30	250	250
dibenzothiophene	132-65-0	300	300	150	300	150	300	2 500	2 500
dibromo-3-chloropropane, 1,2-	96-12-8	4	4	2	4	2	4	40	40
dibromobenzene, 1,3-	108-36-1	10	10	6	10	6	10	95[3]	95
dibromobenzene, 1,4-	106-37-6	300	300	150	300	150	300	2 500	2 500
dibromochloromethane [DBCM]	124-48-1	150	150	85	150	85	150	400	400
dibromoethane, 1,2-	106-93-4	7	7	3.5	7	3.5	7	15	15
dibutyl phthalate [DBP]	84-74-2	8 500	8 500	4 000	8 500	4 000	8 500	25 000	700 000
dibutyltin	14488-53-0	9	9	4.5	9	4.5	9	70	70
dicamba	1918-00-9	900	900	450	900	450	900	7 000	7 000
dichloroacetic acid	79-43-6	100	100	60	100	60	100	650	650
dichlorobenzene, 1,2-	95-50-1	7 500	7 500	3 500	7 500	3 500	7 500	25 000	650 000
dichlorobenzene, 1,3-	541-73-1	2 500	2 500	1 000	2 500	1 000	2 500	7 500	200 000
dichlorobenzene, 1,4-	106-46-7	9 000	9 000	4 500	9 000	4 500	9 000	30 000	800 000
dichlorobenzidine, 3,3'-	91-94-1	30	30	15	30	15	30	75	75
dichlorodifluoromethane	75-71-8	6 500	6 500	3 000	6 500	3 000	6 500	45 000	45 000
dichlorodiphenyl sulfone, 4,4'-	80-07-9	25	25	15	25	15	25	200	200
dichloroethane, 1,1-	75-34-3	15 000[5]	15 000[5]	8 500[5]	15 000[5]	8 500[5]	15 000[5]	50 000[5]	> 1 000 mg/g[5]

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number** (CAS)	**Wildlands Natural** (WL_N)	**Wildlands Reverted** (WL_R)	**Agricultural** (AL)	**Urban Park** (PL)	**Residential Low Density** (RL_{LD})	**Residential High Density** (RL_{HD})	**Commercial** (CL)	**Industrial** (IL)
dichloroethane, 1,2-	107-06-2	150	150	75	150	75	150	350	350
dichloroethylene, 1,1-	75-35-4	4 000	4 000	2 000	4 000	2 000	4 000	15 000	350 000
dichloroethylene, 1,2-cis-	156-59-2	150	150	85	150	85	150	500	15 000
dichloroethylene, 1,2-trans-	156-60-5	1 500	1 500	850	1 500	850	1 500	5 000	150 000
dichloromethane	75-09-2	500	500	250	500	250	500	1 500	40 000
dichlorophenol, 2,3-	576-24-9	250[5]	250[5]	100[5]	250[5]	100[5]	250[5]	750[5]	20 000[5]
dichlorophenol, 2,4-	120-83-2	250	250	100	250	100	250	750	20 000
dichlorophenol, 2,5-	583-78-8	250[5]	250[5]	100[5]	250[5]	100[5]	250[5]	750[5]	20 000[5]
dichlorophenol, 2,6-	87-65-0	250[5]	250[5]	100[5]	250[5]	100[5]	250[5]	750[5]	20 000[5]
dichlorophenol, 3,4-	95-77-2	250[5]	250[5]	100[5]	250[5]	100[5]	250[5]	750[5]	20 000[5]
dichlorophenol, 3,5-	591-35-5	250[5]	250[5]	100[5]	250[5]	100[5]	250[5]	750[5]	20 000[5]
dichlorophenoxy acetic acid, 2,4- [2,4-D]	94-75-7	300	300	150	300	150	300	2 500	2 500
dichlorophenoxy butyric acid, 2,4- [2,4-DB]	94-82-6	250	250	150	250	150	250	2 000	2 000
dichloropropane, 1,2-	78-87-5	1 000	1 000	600	1 000	600	1 000	3 500	10 000
dichloropropane, 1,3-	142-28-9	650[3]	650[3]	300[3]	650[3]	300	650	4 500[3]	4 500
dichloropropanol, 2,3-	616-23-9	90	90	45	90	45	90	700	700
dichloropropene, 1,3- (cis + trans)	542-75-6	2 500	2 500	1 000	2 500	1 000	2 500	7 500	200 000
dichlorvos	62-73-7	15	15	8	15	8	15	100	100
dicrotophos	141-66-2	3	3	1.5	3	1.5	3	25	25
dicyclopentadiene	77-73-6	2 500	2 500	1 500	2 500	1 500	2 500	20 000	20 000
dieldrin	60-57-1	0.85	0.85	0.45	0.85	0.45	0.85	2	2
diethanolamine	111-42-2	65	65	30	65	30	65	450	450
diethyl ether	60-29-7	6 500[3]	6 500[3]	3 000[3]	6 500[3]	3 000	6 500	45 000[3,4]	45 000
diethyl phthalate	84-66-2	25 000	25 000	15 000	25 000	15 000	25 000	200 000[4]	200 000
diethyldithiocarbamate	392-74-5	10	10	5	10	5	10	25	25

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)
diethylene glycol monobutyl ether	112-34-5	900	900	450	900	450	900	7 000	7 000
diethylene glycol monoethyl ether	111-90-0	2 000	2 000	950	2 000	950	2 000	15 000	15 000
diethylformamide	617-84-5	30	30	15	30	15	30	250	250
diflubenzuron	35367-38-5	650	650	300	650	300	650	4 500	4 500
diisobutylene	25167-70-8	300[3]	300[3]	150[3]	300[3]	150	300	2 500[3]	2 500
dimethipin	55290-64-7	650	650	300	650	300	650	4 500	4 500
dimethoate	60-51-5	6.5	6.5	3	6.5	3	6.5	45	45
dimethoxybenzidine, 3,3'-	119-90-4	8.5	8.5	4.5	8.5	4.5	8.5	20	20
dimethyl methylphosphonate	756-79-6	2 000	2 000	950	2 000	950	2 000	15 000	15 000
dimethylamino azobenzene, 4-[DAB]	60-11-7	3	3	1.5	3	1.5	3	7	7
dimethylaniline, 2,4-	95-68-1	65	65	30	65	30	65	150	150
dimethylaniline, N,N-[DMA]	121-69-7	65	65	30	65	30	65	450[3]	450
dimethylbenz(a)anthracene, 7,12-	57-97-6	0.02	0.02	0.02	0.02	0.02	0.02	0.025	0.025
dimethylbenzidine, 3,3'-	119-93-7	1.5	1.5	0.65	1.5	0.65	1.5	3	3
dimethylformamide	68-12-2	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
dimethylhydrazine, 1,1-	57-14-7	3	3	1.5	3	1.5	3	25	25
dimethylphenol, 2,4-	105-67-9	1 500	1 500	850	1 500	850	1 500	5 000	150 000
dimethylphenol, 2,6-	576-26-1	50	50	25	50	25	50	150	4 000
dimethylphenol, 3,4-	95-65-8	85	85	40	85	40	85	250	7 000
dimethylterephthalate	120-61-6	3 000	3 000	1 500	3 000	1 500	3 000	25 000[4]	25 000
dinitrobenzene, 1,2-	528-29-0	3	3	1.5	3	1.5	3	25	25
dinitrobenzene, 1,3-	99-65-0	3	3	1.5	3	1.5	3	25	25
dinitrobenzene, 1,4-	100-25-4	3	3	1.5	3	1.5	3	25	25

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number** (CAS)	**Wildlands Natural** (WL_N)	**Wildlands Reverted** (WL_R)	**Agricultural** (AL)	**Urban Park** (PL)	**Residential Low Density** (RL_{LD})	**Residential High Density** (RL_{HD})	**Commercial** (CL)	**Industrial** (IL)
dinitro-o-cyclohexyl phenol, 4,6-	131-89-5	65	65	30	65	30	65	450	450
dinitrophenol, 2,4-	51-28-5	150	150	85	150	85	150	500	15 000
dinitrotoluene, 2,4-	121-14-2	45	45	20	45	20	45	100	100
dinitrotoluene, 2,6-	606-20-2	9	9	4.5	9	4.5	9	20	20
dinitrotoluene, 2-amino-4,6-	35572-78-2	65	65	30	65	30	65	450	450
dinitrotoluene, 4-amino-2,6-	19406-51-0	65	65	30	65	30	65	450	450
dinoseb	88-85-7	30	30	15	30	15	30	250	250
dioxane, 1,4-	123-91-1	150	150	70	150	70	150	350	350
diphenamid	957-51-7	900	900	450	900	450	900	7 000	7 000
diphenyl sulfone	127-63-9	25	25	15	25	15	25	200	200
diphenyl-1,4-benzenediamine, N, N-	74-31-7	9	9	4.5	9	4.5	9	70	70
diphenylamine	122-39-4	800	800	400	800	400	800	6 000	6 000
diquat (as dibromide)	85-00-7	70	70	35	70	35	70	500	500
Direct Black 38	1937-37-7	2	2	1	2	1	2	4.5	4.5
Direct Blue 6	2602-46-2	2	2	0.95	2	0.95	2	4.5	4.5
Direct Brown 95	16071-86-6	2	2	1	2	1	2	5	5
disulfoton	298-04-4	1	1	0.6	1	0.6	1	9.5	9.5
diuron	330-54-1	65	65	30	65	30	65	450	450
dodine	2439-10-3	100	100	60	100	60	100	950	950
endosulfan (I + II)	115-29-7	500	500	250	500	250	500	1 500	40 000
endothall	145-73-3	650	650	300	650	300	650	4 500	4 500
endrin	72-20-8	9	9	4.5	9	4.5	9	70	70
EPTC	759-94-4	800	800	400	800	400	800	6 000	6 000
ethanol, 2-(2-methoxyethoxy)-	111-77-3	1 000	1 000	600	1 000	600	1 000	9 500	9 500
ethephon	16672-87-0	150	150	80	150	80	150	1 000	1 000
ethion	563-12-2	15	15	8	15	8	15	100	100

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number (CAS)**	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**
ethoxyethanol acetate, 2-	111-15-9	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
ethoxyethanol, 2-	110-80-5	3 000	3 000	1 500	3 000	1 500	3 000	20 000	20 000
ethyl acetate	141-78-6	30 000	30 000	15 000	30 000	15 000	30 000	200 000	200 000
ethyl acrylate	140-88-5	150	150	80	150	80	150	1 000	1 000
ethylene cyanohydrin	109-78-4	2 000	2 000	1 000	2 000	1 000	2 000	15 000	15 000
ethylenediamine	107-15-3	3 000	3 000	1 500	3 000	1 500	3 000	20 000[4]	20 000
ethylene thiourea	96-45-7	2.5	2.5	1.5	2.5	1.5	2.5	20	20
ethyleneimine	151-56-4	0.2	0.2	0.1	0.2	0.1	0.2	0.5	0.5
ethyl-p-nitrophenyl benzenethionophosphonate [EPN]	2104-64-5	0.3	0.3	0.15	0.3	0.15	0.3	2.5	2.5
fenamiphos	22224-92-6	8	8	4	8	4	8	60	60
fenpropathrin	39515-41-8	800	800	400	800	400	800	6 000	6 000
fenvalerate	51630-58-1	800	800	400	800	400	800	6 000	6 000
fluometuron	2164-17-2	400	400	200	400	200	400	3 000	3 000
fluorene	86-73-7	1 000	1 000	600	1 000	600	1 000	9 500	9 500
fluoride	16984-48-8	8 500	8 500	4 500	8 500	4 500	8 500	25 000	750 000
fluridone	59756-60-4	2 500	2 500	1 500	2 500	1 500	2 500	20 000	20 000
fluprimidol	56425-91-3	650	650	300	650	300	650	4 500	4 500
flusilazole	85509-19-9	20	20	10	20	10	20	150	150
flutolanil	66332-96-5	2 000	2 000	950	2 000	950	2 000	15 000	15 000
fluvalinate	69409-94-5	300	300	150	300	150	300	2 500	2 500
folpet	133-07-3	3 000	3 000	1 500	3 000	1 500	3 000	9 500	9 500
fomesafen	72178-02-0	75	75	35	75	35	75	150	150
fonofos	944-22-9	65	65	30	65	30	65	450	450
formaldehyde	50-00-0	6 500	6 500	3 000	6 500	3 000	6 500	45 000	45 000
formic acid	64-18-6	30 000	30 000	15 000	30 000	15 000	30 000	200 000	200 000
fosetyl	15845-66-6	90 000[4]	90 000[4]	45 000[4]	90 000[4]	45 000	90 000	700 000[4]	700 000

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number** (CAS)	**Wildlands Natural** (WL_N)	**Wildlands Reverted** (WL_R)	**Agricultural** (AL)	**Urban Park** (PL)	**Residential Low Density** (RL_{LD})	**Residential High Density** (RL_{HD})	**Commercial** (CL)	**Industrial** (IL)
furan	110-00-9	30	30	15	30	15	30	250	250
furazolidone	67-45-8	3.5	3.5	2	3.5	2	3.5	8.5	8.5
furfural	98-01-1	90	90	45	90	45	90	700	700
furmecyclox	60568-05-0	450	450	250	450	250	450	1 000	1 000
furothiazole	531-82-8	9	9	4.5	9	4.5	9	20	20
glufosinate	53369-07-6	10	10	6	10	6	10	95	95
glycidaldehyde	765-34-4	10	10	6	10	6	10	95	95
glyphosate	1071-83-6	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
guanidine	113-00-8	300	300	150	300	150	300	2 500	2 500
haloxyfop, methyl	69806-40-2	1.5	1.5	0.8	1.5	0.8	1.5	10	10
HEPHs[9]	NA[10]	1 000[11]	1 000[11]	1 000[12]	1 000[12]	1 000[13]	1 000[13]	5 000[12]	5 000[12]
heptachlor	76-44-8	3	3	1.5	3	1.5	3	7.5	7.5
heptachlor epoxide	1024-57-3	0.4	0.4	0.2	0.4	0.2	0.4	3	3
hexabromobenzene	87-82-1	65	65	30	65	30	65	450	450
hexabromobiphenyl, 2,2',4,4',5,5'-	59536-65-1	0.09	0.09	0.045	0.09	0.045	0.09	0.2	0.2
hexachlorobenzene	118-74-1	65	65	35	65	35	65	200	450
hexachlorobutadiene	87-68-3	30	30	15	30	15	30	250	250
hexachlorocyclohexane, alpha-	319-84-6	2	2	1	2	1	2	5	5
hexachlorocyclohexane, beta-	319-85-7	8	8	4	8	4	8	20	20
hexachlorocyclohexane, gamma	58-89-9	25	25	10	25	10	25	75	250
hexachlorocyclopentadiene	77-47-4	200	200	95	200	95	200	1 500	1 500
hexachloroethane	67-72-1	20	20	10	20	10	20	150	150
hexachlorophene	70-30-4	9	9	4.5	9	4.5	9	70	70
hexahydro-1,3,5-trinitro-1,3,5-triazine [RDX]	121-82-4	90	90	45	90	45	90	300	300
hexamethylphosphor-amide	680-31-9	10	10	6	10	6	10	95	95

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number** (CAS)	**Wildlands Natural** (WL_N)	**Wildlands Reverted** (WL_R)	**Agricultural** (AL)	**Urban Park** (PL)	**Residential Low Density** (RL_{LD})	**Residential High Density** (RL_{HD})	**Commercial** (CL)	**Industrial** (IL)
hexanone, 2-	591-78-6	150	150	80	150	80	150	1 000	1 000
hexazinone	51235-04-2	1 000	1 000	500	1 000	500	1 000	8 000	8 000
hexythiazox	78587-05-0	800	800	400	800	400	800	6 000	6 000
hydramethylnon	67485-29-4	9	9	4.5	9	4.5	9	70	70
hydrazine	302-01-2	4.5	4.5	2.5	4.5	2.5	4.5	10	10
hydroquinone	123-31-9	250	250	100	250	100	250	550	550
imazalil	35554-44-0	400	400	200	400	200	400	3 000	3 000
imazaquin	81335-37-7	8 000	8 000	4 000	8 000	4 000	8 000	60 000	60 000
imazethapyr	81335-77-5	8 000	8 000	4 000	8 000	4 000	8 000	60 000	60 000
indeno(1,2,3-cd)pyrene	193-39-5	95[9]	95[9]	50[9]	95[9]	50[9]	95[9]	300[9]	500[9]
iprodione	36734-19-7	1 000	1 000	600	1 000	600	1 000	9 500	9 500
iron	7439-89-6	35 000	35 000	35 000	35 000	35 000	35 000	150 000	150 000
isobutanol	78-83-1	9 000[3]	9 000[3]	4 500[3]	9 000[3]	4 500	9 000	70 000[3]	70 000
isophorone	78-59-1	6 500	6 500	3 000	6 500	3 000	6 500	35 000	35 000
isopropalin	33820-53-0	500	500	250	500	250	500	3 500	3 500
isopropanol	67-63-0	65 000	65 000	30 000	65 000	30 000	65 000	450 000	450 000
isopropylbenzene	98-82-8	3 000[3]	3 000[3]	1 500[3]	3 000[3]	1 500	3 000	25 000[3]	25 000
isoxaben	82558-50-7	1 500	1 500	800	1 500	800	1 500	10 000	10 000
lactofen	77501-63-4	65	65	30	65	30	65	450	450
LEPHs[14]	NA[10]	1 000[11]	1 000[11]	1 000[12]	1 000[12]	1 000[13]	1 000[13]	2 000[12]	2 000[12]
linuron	330-55-2	65	65	30	65	30	65	450	450
lithium	7439-93-2	65	65	30	65	30	65	450	450
malathion	121-75-5	650	650	300	650	300	650	4 500	4 500
malononitrile	109-77-3	3	3	1.5	3	1.5	3	25	25
mancozeb	8018-01-7	900	900	450	900	450	900	7 000	7 000
maneb	12427-38-2	150	150	80	150	80	150	1 000	1 000
mecoprop [MCPP]	93-65-2	30	30	15	30	15	30	250	250
merphos	150-50-5	0.9	0.9	0.45	0.9	0.45	0.9	7	7

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number (CAS)**	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**
metalaxyl	57837-19-1	2 000	2 000	950	2 000	950	2 000	15 000	15 000
methacrylonitrile	126-98-7	3	3	1.5	3	1.5	3	25	25
methamidophos	10265-92-6	1.5	1.5	0.8	1.5	0.8	1.5	10	10
methidathion	950-37-8	30	30	15	30	15	30	250	250
methomyl	16752-77-5	800	800	400	800	400	800	6 000	6 000
methoxy-5-nitroaniline, 2-	99-59-2	300	300	150	300	150	300	650	650
methoxychlor	72-43-5	150	150	80	150	80	150	1 000	1 000
methoxyethanol, 2-	109-86-4	150	150	80	150	80	150	1 000	1 000
methoxyethanol acetate, 2-	110-49-6	250	250	150	250	150	250	2 000	2 000
methyl acetate	79-20-9	30 000[3]	30 000[3]	15 000[3]	30 000[3]	15 000	30 000	250 000[3,4]	250 000[3]
methyl ethyl ketone [MEK]	78-93-3	20 000	20 000	9 500	20 000	9 500	20 000	150 000	150 000[3]
methyl hydrazine	60-34-4	30	30	15	30	15	30	250	250
methyl mercury	22967-92-6	3	3	1.5	3	1.5	3	25	25
methyl methacrylate	80-62-6	45 000[3]	45 000[3]	20 000[3]	45 000[3]	20 000	45 000	300 000[3]	300 000
methyl tert-butyl ether [MTBE]	1634-04-4	8 000	8 000	4 000	8 000	4 000	8 000	20 000	20 000
methyl-5-nitroaniline, 2-	99-55-8	650	650	300	650	300	650	3 500	3 500
methylaniline, 2-	95-53-4	20	20	10	20	10	20	50	50
methylaniline, 4-	106-49-0	100	100	60	100	60	100	950	950
methylcholanthrene, 3-	56-49-5	0.15	0.15	0.07	0.15	0.07	0.15	1.5	1.5
methylene-bis(2-chloroaniline), 4,4'-	101-14-4	30	30	15	30	15	30	350	350
methylene-bis(N, N-dimethyl) aniline, 4,4'-	101-61-1	300	300	150	300	150	300	700	700
methylenebisbenzenamine, 4,4'-	101-77-9	8.5	8.5	4.5	8.5	4.5	8.5	20	20
methylnaphthalene, 1-	90-12-0	500	500	250	500	250	500	1 000	1 000
methylnaphthalene, 2-	91-57-6	100	100	60	100	60	100	950	950
methylphenol, 2-	95-48-7	4 000	4 000	2 000	4 000	2 000	4 000	15 000	350 000

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)
methylphenol, 3-	108-39-4	4 000	4 000	2 000	4 000	2 000	4 000	15 000	350 000
methylphenol, 4-	106-44-5	400	400	200	400	200	400	1 500	35 000
methylphenol, 4-chloro-3-	59-50-7	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
methylstyrene, alpha-	98-83-9	2 000[3]	2 000[3]	1 000[3]	2 000[3]	1 000	2 000	15 000[3]	15 000
metolachlor	51218-45-2	5 000	5 000	2 500	5 000	2 500	5 000	35 000	35 000
metribuzin	21087-64-9	800	800	400	800	400	800	6 000	6 000
metsulfuron-methyl	74223-64-6	8 000	8 000	4 000	8 000	4 000	8 000	60 000[4]	60 000
mirex	2385-85-5	0.8	0.8	0.4	0.8	0.4	0.8	2	2
molinate	2212-67-1	65	65	30	65	30	65	450	450
monomethylarsonic acid	124-58-3	300	300	150	300	150	300	2 500	2 500
methylaniline, N-	100-61-8	65	65	30	65	30	65	450	450
myclobutanil	88671-89-0	800	800	400	800	400	800	6 000	6 000
naled	300-76-5	65	65	30	65	30	65	450	450
naphthylamine, 2-	91-59-8	8	8	4	8	4	8	20	20
napropamide	15299-99-7	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
nitrate (as N)	14797-55-8	50 000[4]	50 000[4]	25 000[4]	50 000[4]	25 000	50 000	400 000[4]	400 000
nitrite (as N)	14797-65-0	3 000	3 000	1 500	3 000	1 500	3 000	25 000[4]	25 000
nitroaniline, 2-	88-74-4	300	300	150	300	150	300	2 500	2 500
nitroaniline, 4-	100-01-6	100	100	60	100	60	100	950	950
nitrobenzene	98-95-3	65	65	30	65	30	65	450	450
nitrofurazone	59-87-0	10	10	5.5	10	5.5	10	25	25
nitroglycerin	55-63-0	3	3	1.5	3	1.5	3	25	25
nitroguanidine	556-88-7	3 000	3 000	1 500	3 000	1 500	3 000	25 000	25 000
nitrophenol, 2-	88-75-5	2[12]	2[12]	0.1[12]	2[12]	1[12]	2[12]	10[12]	10[12]
nitrophenol, 4-	100-02-7	2[12]	2[12]	0.1[12]	2[12]	1[12]	2[12]	10[12]	10[12]
nitropyrene, 4-	57835-92-4	10	10	6	10	6	10	25	25
nitrosodiethanolamine, N-	1116-54-7	5	5	2.5	5	2.5	5	10	10

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number** (CAS)	**Wildlands Natural** (WL_N)	**Wildlands Reverted** (WL_R)	**Agricultural** (AL)	**Urban Park** (PL)	**Residential Low Density** (RL_{LD})	**Residential High Density** (RL_{HD})	**Commercial** (CL)	**Industrial** (IL)
nitrosodiethylamine, N- [NDEA]	55-18-5	0.02	0.02	0.01	0.02	0.01	0.02	0.2	0.2
nitrosodimethylamine, N- [NDMA]	62-75-9	0.06	0.06	0.03	0.06	0.03	0.06	0.65	0.65
nitroso-di-N-butylamine, N-	924-16-3	2.5	2.5	1.5	2.5	1.5	2.5	6	6
nitroso-di-N-propylamine, N-	621-64-7	2	2	1	2	1	2	4.5	4.5
nitrosodiphenylamine, N-	86-30-6	3 000	3 000	1 500	3 000	1 500	3 000	6 500	6 500
nitrosomethylethylamine, N-	10595-95-6	0.65	0.65	0.3	0.65	0.3	0.65	1.5	1.5
nitrosomorpholine, N-	59-89-2	2	2	1	2	1	2	5	5
nitrosopiperidine, N-	100-75-4	1.5	1.5	0.75	1.5	0.75	1.5	3.5	3.5
nitrosopyrrolidine, N-	930-55-2	6.5	6.5	3.5	6.5	3.5	6.5	15	15
nitrotoluene, 2-	88-72-2	30	30	15	30	15	30	150	150
nitrotoluene, 3-	99-08-1	3	3	1.5	3	1.5	3	25	25
nitrotoluene, 4-	99-99-0	100	100	60	100	60	100	950	950
nonane, n-	111-84-2	9[3]	9[3]	4.5[3]	9[3]	4.5	9	70[3]	70
nonaqueous phase liquids[15]	NA[10]	not present	not present	not present	not present	not present	not present	not present	not present
norflurazon	27314-13-2	1 000	1 000	600	1 000	600	1 000	9 500	9 500
octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine [HMX]	2691-41-0	1 500	1 500	800	1 500	800	1 500	10 000	10 000
octamethylpyrophosphoramide [OMPA]	152-16-9	65	65	30	65	30	65	450	450
octyl phthalate, di-n- [DNOP]	117-84-0	300	300	150	300	150	300	2 500	2 500
odorous substances[16]	NA[10]	not present	not present	not present	not present	not present	not present	not present	not present
oryzalin	19044-88-3	1 500	1 500	800	1 500	800	1500	10 000	10 000
oxadiazon	19666-30-9	150	150	80	150	80	150	1 000	1 000
oxamyl	23135-22-0	800	800	400	800	400	800	6 000	6 000
oxyfluorfen	42874-03-3	90	90	45	90	45	90	700	700
paclobutrazol	76738-62-0	400	400	200	400	200	400	3 000	3 000

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)
paraquat (as dichloride)	1910-42-5	150	150	70	150	70	150	1 000	1 000
parathion	56-38-2	200	200	95	200	95	200	1 500	1 500
parathion methyl	298-00-0	8	8	4	8	4	8	60	60
pebulate	1114-71-2	1 500	1 500	800	1 500	800	1 500	10 000	10 000
pendimethalin	40487-42-1	1 000	1 000	600	1 000	600	1 000	9 500	9 500
pentachlorobenzene, 1,2,3,4,5-	608-93-5	65	65	35	65	35	65	200	5 500
pentachloroethane	76-01-7	150	150	75	150	75	150	350	350
pentachloronitrobenzene [PCNB]	82-68-8	55	55	25	55	25	55	150	150
pentaerythritol tetranitrate [PETN]	78-11-5	65	65	30	65	30	65	450	450
perchlorate	14797-73-0	20	20	10	20	10	20	150	150
perfluorobutane sulfonate [PFBS]	375-73-5	650	650	300	650	300	650	4 500	4 500
permethrin (cis + trans)	52645-53-1	1 500	1 500	800	1 500	800	1 500	10 000	10 000
phenanthrene	85-01-8	3 500	3 500	1 500	3 500	1 500	3 500	10 000	300 000
phenmedipham	13684-63-4	8 000	8 000	4 000	8 000	4 000	8 000	60 000	60 000
phenol, 2-methyl-4,6-dinitro-	534-52-1	2.5	2.5	1.5	2.5	1.5	2.5	20	20
phenothiazine	92-84-2	15	15	8	15	8	15	100	100
phenylenediamine, m- [MPD]	108-45-2	200	200	95	200	95	200	1 500	1 500
phenylenediamine, o- [OPD]	95-54-5	300	300	150	300	150	300	700	700
phenylenediamine, p- [PPD]	106-50-3	6 000	6 000	3 000	6 000	3000	6 000	45 000	45 000
phenylphenol, 2-	90-43-7	7 000	7 000	3 500	7 000	3 500	7 000	15 000	15 000
phorate	298-02-2	6.5	6.5	3	6.5	3	6.5	45	45
phosmet	732-11-6	650	650	300	650	300	650	4 500	4 500
phthalic acid, p-	100-21-0	30 000	30 000	15 000	30 000	15 000	30 000	250 000[4]	250 000
picloram	1918-02-1	2 000	2 000	1 000	2 000	1 000	2 000	15 000	15 000
picramic acid	96-91-3	3	3	1.5	3	1.5	3	25	25

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)
picric acid	88-89-1	30	30	15	30	15	30	200	200
pirimiphos- methyl	29232-93-7	300	300	150	300	150	300	2 500	2 500
prochloraz	67747-09-5	90	90	45	90	45	90	200	200
profluralin	26399-36-0	200	200	95	200	95	200	1 500	1 500
prometon	1610-18-0	500	500	250	500	250	500	3 500	3 500
prometryn	7287-19-6	100	100	60	100	60	100	950	950
propachlor	1918-16-7	400	400	200	400	200	400	3 000	3 000
propanil	709-98-8	150	150	80	150	80	150	1 000	1 000
propargite	2312-35-8	650	650	300	650	300	650	4 500	4 500
propargyl alcohol	107-19-7	65	65	30	65	30	65	450	450
propazine	139-40-2	650	650	300	650	300	650	4 500	4 500
propham	122-42-9	650	650	300	650	300	650	4 500	4 500
propiconazole	60207-90-1	400	400	200	400	200	400	3 000	3 000
propylbenzene, 1-	103-65-1	3 000[3]	3 000[3]	1 500[3]	3 000[3]	1 500	3 000	25 000[3]	25 000
propylene glycol monomethyl ether	107-98-2	20 000[3,4]	20 000[3,4]	10 000[3,4]	20 000[3,4]	10 000[3,4]	20 000[3,4]	150 000[3,4]	150 000
propylene oxide	75-56-9	60	60	30	60	30	60	150	150
propyzamide	23950-58-5	2 500	2 500	1 000	2 500	1 000	2 500	20 000	20 000
pyrene	129-00-0	2 500	2 500	1 000	2 500	1 000	2 500	7 500	200 000
pyridine	110-86-1	30	30	15	30	15	30	250	250
quinalphos	13593-03-8	15	15	8	15	8	15	100	100
quinoline	91-22-5	4.5	4.5	2.5	4.5	2.5	4.5	10	10
quizalofop-ethyl	76578-14-8	300	300	150	300	150	300	2 000	2 000
resmethrin	10453-86-8	900	900	450	900	450	900	7 000	7 000
ronnel	299-84-3	1 500	1 500	800	1 500	800	1 500	10 000	10 000
rotenone	83-79-4	100	100	60	100	60	100	950	950
selenious acid	7783-00-8	150	150	80	150	80	150	1 000	1 000
sethoxydim	74051-80-2	3 000	3 000	1 500	3 000	1 500	3 000	20 000	20 000

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number (CAS)**	**Wildlands Natural (WL_N)**	**Wildlands Reverted (WL_R)**	**Agricultural (AL)**	**Urban Park (PL)**	**Residential Low Density (RL_{LD})**	**Residential High Density (RL_{HD})**	**Commercial (CL)**	**Industrial (IL)**
silver	7440-22-4	400	400	200	400	200	400	1 500	35 000
silvex	93-72-1	250	250	150	250	150	250	2 000	2 000
simazine	122-34-9	100	100	60	100	60	100	250	250
strontium	7440-24-6	20 000	20 000	9 500	20 000	9 500	20 000	150 000[4]	150 000
strychnine	57-24-9	9	9	4.5	9	4.5	9	70	70
styrene	100-42-5	15 000	15 000	8 500	15 000	8 500	15 000	50 000	> 1 000 mg/g
styrene-acrylonitrile [SAN] trimer (all isomers)	NA[11]	90	90	45	90	45	90	700	700
sulfotep	3689-24-5	15	15	8	15	8	15	100	100
sulfur, elemental	7704-34-9			2 000					
TCMTB	21564-17-0	900	900	450	900	450	900	7000	7000
tebuthiuron	34014-18-1	2 000	2 000	1 000	2 000	1 000	2 000	15 000	15 000
temephos	3383-96-8	650	650	300	650	300	650	4 500	4 500
terbacil	5902-51-2	400	400	200	400	200	400	3 000	3 000
terbufos	13071-79-9	0.8	0.8	0.4	0.8	0.4	0.8	6	6
terbutryn	886-50-0	30	30	15	30	15	30	250	250
tetrachlorobenzene, 1,2,3,4-	634-66-2	300	300	150	300	150	300	850	25 000
tetrachlorobenzene, 1,2,3,5-	634-90-2	40	40	20	40	20	40	150	3 500
tetrachlorobenzene, 1,2,4,5-	95-94-3	9	9	4.5	9	4.5	9	70	70
tetrachloroethane, 1,1,1,2-	630-20-6	550	550	250	550	250	550	1 500	1 500
tetrachloroethane, 1,1,2,2-	79-34-5	70	70	35	70	35	70	150	150
tetrachlorophenol, 2,3,4,5-	4901-51-3	250	250	100	250	100	250	750	20 000
tetrachlorophenol, 2,3,4,6-	58-90-2	2 500	2 500	1 000	2 500	1 000	2 500	7 500	200 000
tetrachlorophenol, 2,3,5,6	935-95-5	250	250	100	250	100	250	750	20 000
tetrachlorovinphos	961-11-5	600	600	300	600	300	600	1 500	1 500
tetraethyl lead	78-00-2	0.003	0.003	0.0015	0.003	0.0015	0.003	0.025	0.025
tetrahydrofuran	109-99-9	30 000	30 000	15 000	30 000	15 000	30 000	200 000	200 000
tetryl	479-45-8	65	65	30	65	30	65	450	450

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number** (CAS)	**Wildlands Natural** (WL_N)	**Wildlands Reverted** (WL_R)	**Agricultural** (AL)	**Urban Park** (PL)	**Residential Low Density** (RL_{LD})	**Residential High Density** (RL_{HD})	**Commercial** (CL)	**Industrial** (IL)
thallium	7440-28-0			2[12]					
thifensulfuron-methyl	79277-27-3	400	400	200	400	200	400	3 000	3 000
thiobencarb	28249-77-6	300	300	150	300	150	300	2 500	2 500
thiocyanate	302-04-5	6.5	6.5	3	6.5	3	6.5	45	45
thiodiglycol	111-48-8	2 000	2 000	1 000	2 000	1 000	2 000	15 000	15 000
thiofanox	39196-18-4	9	9	4.5	9	4.5	9	70	70
thiophanate- methyl	23564-05-8	2 500	2 500	1 500	2 500	1 500	2 500	20 000	20 000
thiophenol	108-98-5	30	30	15	30	15	30	250	250
thiram	137-26-8	150	150	80	150	80	150	1 000	1 000
tin	7440-31-5	50 000	50 000	25 000	50 000	25 000	50 000	150 000	> 1 000 mg/g
toxaphene (all isomers)	8001-35-2	15	15	6.5	15	6.5	15	30	30
tralomethrin	66841-25-6	250	250	100	250	100	250	2 000	2 000
triadimefon	43121-43-3	900	900	450	900	450	900	7 000	7 000
triallate	2303-17-5	400	400	200	400	200	400	3 000	3 000
triasulfuron	82097-50-5	300	300	150	300	150	300	2 500	2 500
tribenuron-methyl	101200-48-0	250	250	150	250	150	250	2 000	2 000
tribromobenzene, 1,2,4-	615-54-3	150	150	80	150	80	150	1 000	1 000
tribufos	78-48-8	0.9	0.9	0.45	0.9	0.45	0.9	7	7
tributyl phosphate	126-73-8	300	300	150	300	150	300	2 500	2 500
tributyltin	36643-28-4	9	9	4.5	9	4.5	9	70	70
trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	900 000[3]	900 000[3]	450 000[3]	900 000[3]	450 000	900 000	> 1 000 mg/g[3]	> 1 000 mg/g[3]
trichloroacetic acid	76-03-9	200	200	100	200	100	200	450	450
trichloroaniline, 2,4,6-	634-93-5	0.9	0.9	0.45	0.9	0.45	0.9	7	7
trichlorobenzene, 1,2,3-	87-61-6	100	100	60	100	60	100	400	10 000
trichlorobenzene, 1,2,4-	120-82-1	850	850	400	850	400	850	2 500	70 000
trichlorobenzene, 1,3,5-	108-70-3	650	650	350	650	350	650	2 000	55 000
trichloroethane, 1,1,1-	71-55-6	150 000	150 000	85 000	150 000	85 000	150 000	500 000	> 1 000 mg/g

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural (WL_N)	Wildlands Reverted (WL_R)	Agricultural (AL)	Urban Park (PL)	Residential Low Density (RL_{LD})	Residential High Density (RL_{HD})	Commercial (CL)	Industrial (IL)
trichloroethane, 1,1,2-	79-00-5	350	350	150	350	150	350	1 000	30 000
trichlorofluoromethane	75-69-4	9 000[3]	9 000[3]	4 500[3]	9 000[3]	4 500	9 000	70 000[3,4]	70 000
trichlorophenol, 2,3,4-	15950-66-0	85[17]	85[17]	40[17]	85[17]	40[17]	85[17]	250[17]	7 000[17]
trichlorophenol, 2,3,5-	933-78-8	85[17]	85[17]	40[17]	85[17]	40[17]	85[17]	250[17]	7 000[17]
trichlorophenol, 2,3,6-	933-75-5	85[17]	85[17]	40[17]	85[17]	40[17]	85[17]	250[17]	7 000[17]
trichlorophenol, 2,4,5-	95-95-4	8 500	8 500	4 000	8 500	4 000	8 500	25 000	700 000
trichlorophenol, 2,4,6-	88-06-2	85	85	40	85	40	85	250	7 000
trichlorophenol, 3,4,5-	609-19-8	85[17]	85[17]	40[17]	85[17]	40[17]	85[17]	250[17]	7 000[17]
trichlorophenoxyacetic acid, 2,4,5- [2,4,5-T]	93-76-5	300	300	150	300	150	300	2 500	2 500
trichloropropane, 1,1,2-	598-77-6	150	150	80	150	80	150	1 000	1 000
trichloropropane, 1,2,3-	96-18-4	0.1	0.1	0.05	0.1	0.05	0.1	1	1
trichloropropene, 1,2,3-	96-19-5	90	90	45	90	45	90	700	700
tricresyl phosphate [TCP]	1330-78-5	650	650	300	650	300	650	4 500	4 500
tridiphane	58138-08-2	90	90	45	90	45	90	700	700
triethylene glycol	112-27-6	65 000[4]	65 000[4]	30 000[4]	65 000[4]	30 000	65 000	450 000[4]	450 000
trifluralin	1582-09-8	250	250	100	250	100	250	2 000	2 000
trimethyl phosphate	512-56-1	300	300	150	300	150	300	1 500	1 500
trimethylbenzene, 1,3,5-	108-67-8	300[3]	300[3]	150[3]	300[3]	150	300	2 500[3]	2 500
trinitrobenzene, 1,3,5-	99-35-4	900	900	450	900	450	900	7 000	7 000
trinitrotoluene, 2,4,6-	118-96-7	15	15	8	15	8	15	100	100
tris(1,3-dichloro-2-propyl) phosphate [TDCPP]	13674-87-8	650	650	300	650	300	650	4 500	4 500
tris(1-chloro-2-propyl)phosphate [TCPP]	13674-84-5	300	300	150	300	150	300	2 500	2 500
tris(2,3-dibromopropyl) phosphate	126-72-7	6	6	3	6	3	6	15	15

SCHEDULE 3.1 – PART 2

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT HUMAN HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number** (CAS)	**Wildlands Natural** (WL_N)	**Wildlands Reverted** (WL_R)	**Agricultural** (AL)	**Urban Park** (PL)	**Residential Low Density** (RL_{LD})	**Residential High Density** (RL_{HD})	**Commercial** (CL)	**Industrial** (IL)
tris(2-chloroethyl)phosphate [TCEP]	115-96-8	200	200	100	200	100	200	1 500	1 500
tris(2-ethylhexyl)phosphate	78-42-2	3 000	3 000	1 500	3 000	1 500	3 000	10 000	10 000
tungsten	7440-33-7	25	25	15	25	15	25	200	200
vernolate	1929-77-7	30	30	15	30	15	30	250	250
vinclozolin	50471-44-8	800	800	400	800	400	800	6 000	6 000
vinyl acetate	108-05-4	30 000	30 000	15 000	30 000	15 000	30 000	250 000[3]	250 000
vinyl chloride	75-01-4	2	2	0.95	2	0.95	2	45	45
VPHs[18]	NA[10]	200[11]	200[11]	200[12]	200[12]	200[13]	200[13]	200[12]	200[12]
warfarin	81-81-2	9	9	4.5	9	4.5	9	70	70
zineb	12122-67-7	1 500	1 500	800	1 500	800	1500	10 000	10 000

Notes

[1] All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.

[2] Standards are based on the 2015 United States (US) Environmental Protection Agency (EPA) "Regional Screening Levels" for soil ingestion. The EPA Regional Screening Levels for non-carcinogenic substances are adjusted to reflect the 1996 "Overview of CSST Procedures for the Derivation of Soil Quality Matrix Standards for Contaminated Sites" Soil Allocation Factor (SAF = 0.2) and for carcinogenic substances, a human lifetime cancer risk of less than or equal to one in 100 000, in accordance with section 18 (3) of this regulation, unless otherwise noted. The high density residential land use standards of this schedule assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.

[3] Standard is based on the US EPA Regional Ingestion Screening Level saturation limit for the substance in soil.

[4] Standard is based on the US EPA Regional Ingestion Screening Level ceiling limit for the substance in soil.

[5] Standard is derived in accordance with Protocol 28 "2016 Standards Derivation Methods".

[6] Standard is not derived based on the toxicology of the substance. Standard is based on the Hazardous Waste Regulation, B.C. Reg. 63/88, definition for waste asbestos. Note that 1% by weight is equivalent to 10 000 µg/g.

[7] Standard represents a "Benzo(a)Pyrene Toxicity Equivalent Quotient (BaP TEQ)". Standard is set equal to the corresponding land use, Human Health Protection – Intake of contaminated soil, matrix soil standard for benzo(a)pyrene divided by the 1998 World Health Organization "Benzo(a)Pyrene Toxicity Equivalent Factor (BaP TEF)" for the substance. Consult a director for further advice.

[8] Standard is derived using either the respective 2001 Rijks Instituut voor Volksgezondheid en Milieu (RIVM) Tolerable Daily Intake (TDI) for monochlorophenols (total) or dichlorophenols (total). The sum of the concentrations in soil, of monochlorophenol or dichlorophenol (all isomers) substances prescribed in this schedule must not exceed the standard. Consult a director for further advice.

[9] HEPHs - Heavy Extractable Petroleum Hydrocarbons in soil, as defined in 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.
[10] NA – not applicable. No CAS number exists for the substance.
[11] Standard is set equal to the Urban Park (PL) land use soil standard for the substance in Schedule 4 of this regulation, as it was before the repeal of that schedule.
[12] Standard is set equal to the corresponding land use soil standard for the substance in Schedule 4 of this regulation, as it was before the repeal of that schedule.
[13] Standard has been set to equal the Residential (RL) land use soil standard for the substance in Schedule 4 of this regulation, as it was before the repeal of that schedule.
[14] LEPHs - Light Extractable Petroleum Hydrocarbons in soil, as defined in 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.
[15] Soil must be remediated so that nonaqueous phase liquids are not present in quantities in excess of that acceptable to a director.
[16] Soil must be remediated so that odorous substances are not present in quantities in excess of that acceptable to a director.
[17] Standard has been set equal to the standard for 2,4,6-trichlorophenol.
[18] VPHs - Volatile Petroleum Hydrocarbons in soil, as defined in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
acenaphthene	83-32-9	NS	NS	NS	NS	NS	NS	NS	NS
acephate	30560-19-1	NS	NS	NS	NS	NS	NS	NS	NS
acetic acid, 2-methyl-4-chlorophenoxy- [MCPA]	94-74-6	NS	NS	NS	NS	NS	NS	NS	NS
acetochlor	34256-82-1	NS	NS	NS	NS	NS	NS	NS	NS
acetone	67-64-1	NS	NS	NS	NS	NS	NS	NS	NS
acetophenone	98-86-2	NS	NS	NS	NS	NS	NS	NS	NS
acrolein	107-02-8	NS	NS	NS	NS	NS	NS	NS	NS
acrylamide	79-06-1	NS	NS	NS	NS	NS	NS	NS	NS
acrylic acid	79-10-7	NS	NS	NS	NS	NS	NS	NS	NS
acrylonitrile	107-13-1	NS	NS	NS	NS	NS	NS	NS	NS
adipic acid	124-04-9	NS	NS	NS	NS	NS	NS	NS	NS
alachlor	15972-60-8	NS	NS	NS	NS	NS	NS	NS	NS
aldicarb	116-06-3	NS	NS	NS	NS	NS	NS	NS	NS
aldicarb sulfone	1646-88-4	NS	NS	NS	NS	NS	NS	NS	NS
aldrin	309-00-2	NS	NS	NS	NS	NS	NS	NS	NS
allyl alcohol	107-18-6	NS	NS	NS	NS	NS	NS	NS	NS
allyl chloride	107-05-1	NS	NS	NS	NS	NS	NS	NS	NS
aluminum	7429-90-5	NS	NS	NS	NS	NS	NS	NS	NS
ametryn	834-12-8	NS	NS	NS	NS	NS	NS	NS	NS
aminobiphenyl, 4-	92-67-1	NS	NS	NS	NS	NS	NS	NS	NS
aminophenol, 3-	591-27-5	NS	NS	NS	NS	NS	NS	NS	NS
aminophenol, 4-	123-30-8	NS	NS	NS	NS	NS	NS	NS	NS
amitraz	33089-61-1	NS	NS	NS	NS	NS	NS	NS	NS
aniline	62-53-3	NS	NS	NS	NS	NS	NS	NS	NS
anthraquinone, 9,10-	84-65-1	NS	NS	NS	NS	NS	NS	NS	NS
antimony	7440-36-0	15	20	20	20	20	40	40	40
aramite	140-57-8	NS	NS	NS	NS	NS	NS	NS	NS
asbestos	1332-21-4	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
asulam	3337-71-1	NS	NS	NS	NS	NS	NS	NS	NS
atrazine	1912-24-9	NS	NS	NS	NS	NS	NS	NS	NS
auramine	492-80-8	NS	NS	NS	NS	NS	NS	NS	NS
avermectin B1 (a + b)	71751-41-2	NS	NS	NS	NS	NS	NS	NS	NS
azinphos-methyl	86-50-0	NS	NS	NS	NS	NS	NS	NS	NS
azobenzene	103-33-3	NS	NS	NS	NS	NS	NS	NS	NS
azodicarbonamide	123-77-3	NS	NS	NS	NS	NS	NS	NS	NS
benfluralin	1861-40-1	NS	NS	NS	NS	NS	NS	NS	NS
benomyl	17804-35-2	NS	NS	NS	NS	NS	NS	NS	NS
bensulfuron-methyl	83055-99-6	NS	NS	NS	NS	NS	NS	NS	NS
bentazon	25057-89-0	NS	NS	NS	NS	NS	NS	NS	NS
benz(a)anthracene	56-55-3	0.65	1	0.1	1	1	10	10	10
benzidine	92-87-5	NS	NS	NS	NS	NS	NS	NS	NS
benzo(b+j)fluoranthenes	205-99-2 & 205-82-3	0.65	1	0.1	1	1	10	10	10
benzo(k)fluoranthene	207-08-9	0.65	1	0.1	1	1	10	10	10
benzoic acid	65-85-0	NS	NS	NS	NS	NS	NS	NS	NS
benzotrichloride	98-07-7	NS	NS	NS	NS	NS	NS	NS	NS
benzyl alcohol	100-51-6	NS	NS	NS	NS	NS	NS	NS	NS
benzyl chloride	100-44-7	NS	NS	NS	NS	NS	NS	NS	NS
bifenox	42576-02-3	NS	NS	NS	NS	NS	NS	NS	NS
bifenthrin	82657-04-3	NS	NS	NS	NS	NS	NS	NS	NS
biphenyl, 1,1'-	92-52-4	NS	NS	NS	NS	NS	NS	NS	NS
bis(2-chloroethoxy) methane	111-91-1	NS	NS	NS	NS	NS	NS	NS	NS
bis(2-chloroethyl) ether	111-44-4	NS	NS	NS	NS	NS	NS	NS	NS
bis(2-chloro-1-methylethyl) ether	108-60-1	NS	NS	NS	NS	NS	NS	NS	NS
bis(2-ethylhexyl) adipate	103-23-1	NS	NS	NS	NS	NS	NS	NS	NS
bis(2-ethylhexyl) phthalate [DEHP]	117-81-7			30					

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
bisphenol A	80-05-7	NS	NS	NS	NS	NS	NS	NS	NS
boron	7440-42-8	NS	NS	NS	NS	NS	NS	NS	NS
boron (hot water soluble)	NA[7]			2					
bromate	15541-45-4	NS	NS	NS	NS	NS	NS	NS	NS
bromo-2-chloroethane, 1-	107-04-0	NS	NS	NS	NS	NS	NS	NS	NS
bromobenzene	108-86-1	NS	NS	NS	NS	NS	NS	NS	NS
bromodichloromethane	75-27-4	NS	NS	NS	NS	NS	NS	NS	NS
bromoform	75-25-2	NS	NS	NS	NS	NS	NS	NS	NS
bromomethane	74-83-9	NS	NS	NS	NS	NS	NS	NS	NS
bromophos	2104-96-3	NS	NS	NS	NS	NS	NS	NS	NS
bromoxynil	1689-84-5	NS	NS	NS	NS	NS	NS	NS	NS
butadiene, 1,3-	106-99-0	NS	NS	NS	NS	NS	NS	NS	NS
butanoic acid, 4-(4-chloro-2-methylphenoxy)- [MCPB]	94-81-5	NS	NS	NS	NS	NS	NS	NS	NS
butanol, 2-	78-92-2	NS	NS	NS	NS	NS	NS	NS	NS
butanol, n-	71-36-3	NS	NS	NS	NS	NS	NS	NS	NS
butoxy ethanol, 2-	111-76-2	NS	NS	NS	NS	NS	NS	NS	NS
butyl benzyl phthalate	85-68-7	NS	NS	NS	NS	NS	NS	NS	NS
butyl phthalyl butyl glycolate	85-70-1	NS	NS	NS	NS	NS	NS	NS	NS
butylate	2008-41-5	NS	NS	NS	NS	NS	NS	NS	NS
butylated hydroxytoluene [BHT]	128-37-0	NS	NS	NS	NS	NS	NS	NS	NS
butylbenzene, n-	104-51-8	NS	NS	NS	NS	NS	NS	NS	NS
butylbenzene, sec-	135-98-8	NS	NS	NS	NS	NS	NS	NS	NS
butylbenzene, tert-	98-06-6	NS	NS	NS	NS	NS	NS	NS	NS
cacodylic acid	75-60-5	NS	NS	NS	NS	NS	NS	NS	NS
caprolactam	105-60-2	NS	NS	NS	NS	NS	NS	NS	NS
captafol	2425-06-1	NS	NS	NS	NS	NS	NS	NS	NS
captan	133-06-2	NS	NS	NS	NS	NS	NS	NS	NS
carbaryl	63-25-2	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
carbofuran	1563-66-2	NS	NS	NS	NS	NS	NS	NS	NS
carbon disulfide	75-15-0	NS	NS	NS	NS	NS	NS	NS	NS
carbon tetrachloride	56-23-5	3	5	0.1	5	5	50	50	50
carbosulfan	55285-14-8	NS	NS	NS	NS	NS	NS	NS	NS
carboxin	5234-68-4	NS	NS	NS	NS	NS	NS	NS	NS
chloramben	133-90-4	NS	NS	NS	NS	NS	NS	NS	NS
chloranil	118-75-2	NS	NS	NS	NS	NS	NS	NS	NS
chlordane (cis + trans)	5103-71-9 & 5103-74-2	NS	NS	NS	NS	NS	NS	NS	NS
chlordecone	143-50-0	NS	NS	NS	NS	NS	NS	NS	NS
chlorfenvinphos	470-90-6	NS	NS	NS	NS	NS	NS	NS	NS
chlorimuron, ethyl	90982-32-4	NS	NS	NS	NS	NS	NS	NS	NS
chloro-2-methylaniline, 4-	95-69-2	NS	NS	NS	NS	NS	NS	NS	NS
chloroacetaldehyde, 2-	107-20-0	NS	NS	NS	NS	NS	NS	NS	NS
chloroaniline, p-	106-47-8	NS	NS	NS	NS	NS	NS	NS	NS
chlorobenzene	108-90-7	0.65	1	0.1	1	1	10	10	10
chlorobenzilate	510-15-6	NS	NS	NS	NS	NS	NS	NS	NS
chlorobenzoic acid, 4-	74-11-3	NS	NS	NS	NS	NS	NS	NS	NS
chlorobenzotrichloride, 4-	5216-25-1	NS	NS	NS	NS	NS	NS	NS	NS
chlorobenzotrifluoride, 4-	98-56-6	NS	NS	NS	NS	NS	NS	NS	NS
chlorobutane, 1-	109-69-3	NS	NS	NS	NS	NS	NS	NS	NS
chloroethanol, 2-	107-07-3	NS	NS	NS	NS	NS	NS	NS	NS
chloroform	67-66-3	3	5	0.1	5	5	50	50	50
chloronaphthalene, 2-	91-58-7	NS	NS	NS	NS	NS	NS	NS	NS
chloronitrobenzene, 2-	88-73-3	NS	NS	NS	NS	NS	NS	NS	NS
chloronitrobenzene, 4-	100-00-5	NS	NS	NS	NS	NS	NS	NS	NS
chlorophenol, 2-	95-57-8	0.3	0.5	0.05	0.5	0.5	5	5	5
chlorophenol, 3-	108-43-0	0.3	0.5	0.05	0.5	0.5	5	5	5
chlorophenol, 4-	106-48-9	0.3	0.5	0.05	0.5	0.5	5	5	5

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
chloroprene	126-99-8	NS	NS	NS	NS	NS	NS	NS	NS
chlorothalonil	1897-45-6	NS	NS	NS	NS	NS	NS	NS	NS
chlorotoluene, 2-	95-49-8	NS	NS	NS	NS	NS	NS	NS	NS
chlorotoluene, 4-	106-43-4	NS	NS	NS	NS	NS	NS	NS	NS
chlorpropham	101-21-3	NS	NS	NS	NS	NS	NS	NS	NS
chlorpyrifos	2921-88-2	NS	NS	NS	NS	NS	NS	NS	NS
chlorpyrifos-methyl	5598-13-0	NS	NS	NS	NS	NS	NS	NS	NS
chlorsulfuron	64902-72-3	NS	NS	NS	NS	NS	NS	NS	NS
chlorthal-dimethyl	1861-32-1	NS	NS	NS	NS	NS	NS	NS	NS
chlorthiophos	60238-56-4	NS	NS	NS	NS	NS	NS	NS	NS
chrysene	218-01-9	NS	NS	NS	NS	NS	NS	NS	NS
clofentezine	74115-24-5	NS	NS	NS	NS	NS	NS	NS	NS
crotonaldehyde, trans-	123-73-9	NS	NS	NS	NS	NS	NS	NS	NS
cyanazine	21725-46-2	NS	NS	NS	NS	NS	NS	NS	NS
cyanogen	460-19-5	NS	NS	NS	NS	NS	NS	NS	NS
cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	NS	NS	NS	NS	NS	NS	NS	NS
cyclohexanone	108-94-1	NS	NS	NS	NS	NS	NS	NS	NS
cyclohexene	110-83-8	NS	NS	NS	NS	NS	NS	NS	NS
cyclohexylamine	108-91-8	NS	NS	NS	NS	NS	NS	NS	NS
cyfluthrin	68359-37-5	NS	NS	NS	NS	NS	NS	NS	NS
cyhalothrin	68085-85-8	NS	NS	NS	NS	NS	NS	NS	NS
cypermethrin	52315-07-8	NS	NS	NS	NS	NS	NS	NS	NS
cyromazine	66215-27-8	NS	NS	NS	NS	NS	NS	NS	NS
dalapon	75-99-0	NS	NS	NS	NS	NS	NS	NS	NS
daminozide	1596-84-5	NS	NS	NS	NS	NS	NS	NS	NS
demeton	8065-48-3	NS	NS	NS	NS	NS	NS	NS	NS
diallate	2303-16-4	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1, 2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
diaminotoluene, 2,5-	95-70-5	NS	NS	NS	NS	NS	NS	NS	NS
diazinon	333-41-5	NS	NS	NS	NS	NS	NS	NS	NS
dibenz(a,h)anthracene	53-70-3	0.65	1	0.1	1	1	10	10	10
dibenzo(a,e)pyrene	192-65-4	NS	NS	NS	NS	NS	NS	NS	NS
dibenzofuran	132-64-9	NS	NS	NS	NS	NS	NS	NS	NS
dibenzothiophene	132-65-0	NS	NS	NS	NS	NS	NS	NS	NS
dibromo-3-chloropropane, 1,2-	96-12-8	NS	NS	NS	NS	NS	NS	NS	NS
dibromobenzene, 1,3-	108-36-1	NS	NS	NS	NS	NS	NS	NS	NS
dibromobenzene, 1,4-	106-37-6	NS	NS	NS	NS	NS	NS	NS	NS
dibromochloromethane [DBCM]	124-48-1	NS	NS	NS	NS	NS	NS	NS	NS
dibromoethane, 1,2-	106-93-4	NS	NS	NS	NS	NS	NS	NS	NS
dibutyl phthalate [DBP]	84-74-2			30					
dibutyltin	14488-53-0	NS	NS	NS	NS	NS	NS	NS	NS
dicamba	1918-00-9	NS	NS	NS	NS	NS	NS	NS	NS
dichloroacetic acid	79-43-6	NS	NS	NS	NS	NS	NS	NS	NS
dichlorobenzene, 1,2-	95-50-1	0.65	1	0.1	1	1	10	10	10
dichlorobenzene, 1,3-	541-73-1	0.65	1	0.1	1	1	10	10	10
dichlorobenzene, 1,4-	106-46-7	0.65	1	0.1	1	1	10	10	10
dichlorobenzidine, 3,3'-	91-94-1	NS	NS	NS	NS	NS	NS	NS	NS
dichlorodifluoromethane	75-71-8	NS	NS	NS	NS	NS	NS	NS	NS
dichlorodiphenyl sulfone, 4,4'-	80-07-9	NS	NS	NS	NS	NS	NS	NS	NS
dichloroethane, 1,1-	75-34-3	3	5	0.1	5	5	50	50	50
dichloroethane, 1,2-	107-06-2	3	5	0.1	5	5	50	50	50
dichloroethylene, 1,1-	75-35-4	3	5	0.1	5	5	50	50	50
dichloroethylene, 1,2-cis-	156-59-2	3	5	0.1	5	5	50	50	50
dichloroethylene, 1,2-trans-	156-60-5	3	5	0.1	5	5	50	50	50
dichloromethane	75-09-2	3	5	0.1	5	5	50	50	50
dichlorophenol, 2,3-	576-24-9	0.3	0.5	0.05	0.5	0.5	5	5	5

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
dichlorophenol, 2,4-	120-83-2	0.3	0.5	0.05	0.5	0.5	5	5	5
dichlorophenol, 2,5-	583-78-8	0.3	0.5	0.05	0.5	0.5	5	5	5
dichlorophenol, 2,6-	87-65-0	0.3	0.5	0.05	0.5	0.5	5	5	5
dichlorophenol, 3,4-	95-77-2	0.3	0.5	0.05	0.5	0.5	5	5	5
dichlorophenol, 3,5-	591-35-5	0.3	0.5	0.05	0.5	0.5	5	5	5
dichlorophenoxy acetic acid, 2,4-[2,4-D]	94-75-7	NS	NS	NS	NS	NS	NS	NS	NS
dichlorophenoxy butyric acid, 2,4-[2,4-DB]	94-82-6	NS	NS	NS	NS	NS	NS	NS	NS
dichloropropane, 1,2-	78-87-5	3	5	0.1	5	5	50	50	50
dichloropropane, 1,3-	142-28-9	NS	NS	NS	NS	NS	NS	NS	NS
dichloropropanol, 2,3-	616-23-9	NS	NS	NS	NS	NS	NS	NS	NS
dichloropropene, 1,3- (cis + trans)	542-75-6	3	5	0.1	5	5	50	50	50
dichlorvos	62-73-7	NS	NS	NS	NS	NS	NS	NS	NS
dicrotophos	141-66-2	NS	NS	NS	NS	NS	NS	NS	NS
dicyclopentadiene	77-73-6	NS	NS	NS	NS	NS	NS	NS	NS
dieldrin	60-57-1	NS	NS	NS	NS	NS	NS	NS	NS
diethanolamine	111-42-2	NS	NS	NS	NS	NS	NS	NS	NS
diethyl ether	60-29-7	NS	NS	NS	NS	NS	NS	NS	NS
diethyl phthalate	84-66-2	NS	NS	NS	NS	NS	NS	NS	NS
diethyldithiocarbamate	392-74-5	NS	NS	NS	NS	NS	NS	NS	NS
diethylene glycol monobutyl ether	112-34-5	NS	NS	NS	NS	NS	NS	NS	NS
diethylene glycol monoethyl ether	111-90-0	NS	NS	NS	NS	NS	NS	NS	NS
diethylformamide	617-84-5	NS	NS	NS	NS	NS	NS	NS	NS
diflubenzuron	35367-38-5	NS	NS	NS	NS	NS	NS	NS	NS
diisobutylene	25167-70-8	NS	NS	NS	NS	NS	NS	NS	NS
dimethipin	55290-64-7	NS	NS	NS	NS	NS	NS	NS	NS
dimethoate	60-51-5	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1, 2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
dimethoxybenzidine, 3,3'-	119-90-4	NS	NS	NS	NS	NS	NS	NS	NS
dimethyl methylphosphonate	756-79-6	NS	NS	NS	NS	NS	NS	NS	NS
dimethylamino azobenzene, 4-[DAB]	60-11-7	NS	NS	NS	NS	NS	NS	NS	NS
dimethylaniline, 2,4-	95-68-1	NS	NS	NS	NS	NS	NS	NS	NS
dimethylaniline, N,N- [DMA]	121-69-7	NS	NS	NS	NS	NS	NS	NS	NS
dimethylbenz(a)anthracene, 7,12-	57-97-6	NS	NS	NS	NS	NS	NS	NS	NS
dimethylbenzidine, 3,3'-	119-93-7	NS	NS	NS	NS	NS	NS	NS	NS
dimethylformamide	68-12-2	NS	NS	NS	NS	NS	NS	NS	NS
dimethylhydrazine, 1,1-	57-14-7	NS	NS	NS	NS	NS	NS	NS	NS
dimethylphenol, 2,4-	105-67-9	0.65	1	0.1	1	1	10	10	10
dimethylphenol, 2,6-	576-26-1	NS	NS	NS	NS	NS	NS	NS	NS
dimethylphenol, 3,4-	95-65-8	NS	NS	NS	NS	NS	NS	NS	NS
dimethylterephthalate	120-61-6	NS	NS	NS	NS	NS	NS	NS	NS
dinitrobenzene, 1,2-	528-29-0	NS	NS	NS	NS	NS	NS	NS	NS
dinitrobenzene, 1,3-	99-65-0	NS	NS	NS	NS	NS	NS	NS	NS
dinitrobenzene, 1,4-	100-25-4	NS	NS	NS	NS	NS	NS	NS	NS
dinitro-o-cyclohexyl phenol, 4,6-	131-89-5	NS	NS	NS	NS	NS	NS	NS	NS
dinitrophenol, 2,4-	51-28-5	0.65	1	0.1	1	1	10	10	10
dinitrotoluene, 2,4-	121-14-2	NS	NS	NS	NS	NS	NS	NS	NS
dinitrotoluene, 2,6-	606-20-2	NS	NS	NS	NS	NS	NS	NS	NS
dinitrotoluene, 2-amino-4,6-	35572-78-2	NS	NS	NS	NS	NS	NS	NS	NS
dinitrotoluene, 4-amino-2,6-	19406-51-0	NS	NS	NS	NS	NS	NS	NS	NS
dinoseb	88-85-7	NS	NS	NS	NS	NS	NS	NS	NS
dioxane, 1,4-	123-91-1	NS	NS	NS	NS	NS	NS	NS	NS
diphenamid	957-51-7	NS	NS	NS	NS	NS	NS	NS	NS
diphenyl sulfone	127-63-9	NS	NS	NS	NS	NS	NS	NS	NS
diphenyl-1,4-benzenediamine, N,N'-	74-31-7	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
diphenylamine	122-39-4	NS	NS	NS	NS	NS	NS	NS	NS
diquat (as dibromide)	85-00-7	NS	NS	NS	NS	NS	NS	NS	NS
Direct Black 38	1937-37-7	NS	NS	NS	NS	NS	NS	NS	NS
Direct Blue 6	2602-46-2	NS	NS	NS	NS	NS	NS	NS	NS
Direct Brown 95	16071-86-6	NS	NS	NS	NS	NS	NS	NS	NS
disulfoton	298-04-4	NS	NS	NS	NS	NS	NS	NS	NS
diuron	330-54-1	NS	NS	NS	NS	NS	NS	NS	NS
dodine	2439-10-3	NS	NS	NS	NS	NS	NS	NS	NS
endosulfan I + II	115-29-7	NS	NS	NS	NS	NS	NS	NS	NS
endothall	145-73-3	NS	NS	NS	NS	NS	NS	NS	NS
endrin	72-20-8	NS	NS	NS	NS	NS	NS	NS	NS
EPTC	759-94-4	NS	NS	NS	NS	NS	NS	NS	NS
ethanol, 2-(2-methoxyethoxy)-	111-77-3	NS	NS	NS	NS	NS	NS	NS	NS
ethephon	16672-87-0	NS	NS	NS	NS	NS	NS	NS	NS
ethion	563-12-2	NS	NS	NS	NS	NS	NS	NS	NS
ethoxyethanol acetate, 2-	111-15-9	NS	NS	NS	NS	NS	NS	NS	NS
ethoxyethanol, 2-	110-80-5	NS	NS	NS	NS	NS	NS	NS	NS
ethyl acetate	141-78-6	NS	NS	NS	NS	NS	NS	NS	NS
ethyl acrylate	140-88-5	NS	NS	NS	NS	NS	NS	NS	NS
ethylene cyanohydrin	109-78-4	NS	NS	NS	NS	NS	NS	NS	NS
ethylenediamine	107-15-3	NS	NS	NS	NS	NS	NS	NS	NS
ethylene thiourea	96-45-7	NS	NS	NS	NS	NS	NS	NS	NS
ethyleneimine	151-56-4	NS	NS	NS	NS	NS	NS	NS	NS
ethyl p-nitrophenyl benzenethionophosphonate [EPN]	2104-64-5	NS	NS	NS	NS	NS	NS	NS	NS
fenamiphos	22224-92-6	NS	NS	NS	NS	NS	NS	NS	NS
fenpropathrin	39515-41-8	NS	NS	NS	NS	NS	NS	NS	NS
fenvalerate	51630-58-1	NS	NS	NS	NS	NS	NS	NS	NS
fluometuron	2164-17-2	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
fluorene	86-73-7	NS	NS	NS	NS	NS	NS	NS	NS
fluoride	16984-48-8	250	400	200	400	400	2 000	2 000	2 000
fluridone	59756-60-4	NS	NS	NS	NS	NS	NS	NS	NS
flurprimidol	56425-91-3	NS	NS	NS	NS	NS	NS	NS	NS
flusilazole	85509-19-9	NS	NS	NS	NS	NS	NS	NS	NS
flutolanil	66332-96-5	NS	NS	NS	NS	NS	NS	NS	NS
fluvalinate	69409-94-5	NS	NS	NS	NS	NS	NS	NS	NS
folpet	133-07-3	NS	NS	NS	NS	NS	NS	NS	NS
fomesafen	72178-02-0	NS	NS	NS	NS	NS	NS	NS	NS
fonofos	944-22-9	NS	NS	NS	NS	NS	NS	NS	NS
formaldehyde	50-00-0	NS	NS	NS	NS	NS	NS	NS	NS
formic acid	64-18-6	NS	NS	NS	NS	NS	NS	NS	NS
fosetyl	15845-66-6	NS	NS	NS	NS	NS	NS	NS	NS
furan	110-00-9	NS	NS	NS	NS	NS	NS	NS	NS
furazolidone	67-45-8	NS	NS	NS	NS	NS	NS	NS	NS
furfural	98-01-1	NS	NS	NS	NS	NS	NS	NS	NS
furmecyclox	60568-05-0	NS	NS	NS	NS	NS	NS	NS	NS
furothiazole	531-82-8	NS	NS	NS	NS	NS	NS	NS	NS
glufosinate	53369-07-6	NS	NS	NS	NS	NS	NS	NS	NS
glycidaldehyde	765-34-4	NS	NS	NS	NS	NS	NS	NS	NS
glyphosate	1071-83-6	NS	NS	NS	NS	NS	NS	NS	NS
guanidine	113-00-8	NS	NS	NS	NS	NS	NS	NS	NS
haloxyfop, methyl	69806-40-2	NS	NS	NS	NS	NS	NS	NS	NS
HEPHs[8]	NA[7]	650	1 000	1 000	1 000	1 000	5 000	5 000	5 000
heptachlor	76-44-8	NS	NS	NS	NS	NS	NS	NS	NS
heptachlor epoxide	1024-57-3	NS	NS	NS	NS	NS	NS	NS	NS
hexabromobenzene	87-82-1	NS	NS	NS	NS	NS	NS	NS	NS
hexabromobiphenyl, 2,2',4,4',5,5'-	59536-65-1	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1, 2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
hexachlorobenzene	118-74-1	1.5	2	0.05	2	2	10	10	10
hexachlorobutadiene	87-68-3	NS	NS	NS	NS	NS	NS	NS	NS
hexachlorocyclohexane, alpha	319-84-6	NS	NS	NS	NS	NS	NS	NS	NS
hexachlorocyclohexane, beta	319-85-7	NS	NS	NS	NS	NS	NS	NS	NS
hexachlorocyclohexane, gamma	58-89-9			0.01					
hexachlorocyclopentadiene	77-47-4	NS	NS	NS	NS	NS	NS	NS	NS
hexachloroethane	67-72-1	NS	NS	NS	NS	NS	NS	NS	NS
hexachlorophene	70-30-4	NS	NS	NS	NS	NS	NS	NS	NS
hexahydro-1,3,5-trinitro-1,3,5-triazine [RDX]	121-82-4	NS	NS	NS	NS	NS	NS	NS	NS
hexamethylphosphoramide	680-31-9	NS	NS	NS	NS	NS	NS	NS	NS
hexanone, 2-	591-78-6	NS	NS	NS	NS	NS	NS	NS	NS
hexazinone	51235-04-2	NS	NS	NS	NS	NS	NS	NS	NS
hexythiazox	78587-05-0	NS	NS	NS	NS	NS	NS	NS	NS
hydramethylnon	67485-29-4	NS	NS	NS	NS	NS	NS	NS	NS
hydrazine	302-01-2	NS	NS	NS	NS	NS	NS	NS	NS
hydroquinone	123-31-9	NS	NS	NS	NS	NS	NS	NS	NS
imazalil	35554-44-0	NS	NS	NS	NS	NS	NS	NS	NS
imazaquin	81335-37-7	NS	NS	NS	NS	NS	NS	NS	NS
imazethapyr	81335-77-5	NS	NS	NS	NS	NS	NS	NS	NS
indeno(1,2,3-cd)pyrene	193-39-5	0.65	1	0.1	1	1	10	10	10
iprodione	36734-19-7	NS	NS	NS	NS	NS	NS	NS	NS
isobutanol	78-83-1	NS	NS	NS	NS	NS	NS	NS	NS
isophorone	78-59-1	NS	NS	NS	NS	NS	NS	NS	NS
isopropalin	33820-53-0	NS	NS	NS	NS	NS	NS	NS	NS
isopropanol	67-63-0	NS	NS	NS	NS	NS	NS	NS	NS
isopropylbenzene	98-82-8	NS	NS	NS	NS	NS	NS	NS	NS
isoxaben	82558-50-7	NS	NS	NS	NS	NS	NS	NS	NS
lactofen	77501-63-4	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1, 2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
LEPHs[9]	NA[7]	650	1 000	1 000	1 000	1 000	2 000	2 000	2 000
linuron	330-55-2	NS	NS	NS	NS	NS	NS	NS	NS
lithium	7439-93-2	NS	NS	NS	NS	NS	NS	NS	NS
malathion	121-75-5	NS	NS	NS	NS	NS	NS	NS	NS
malononitrile	109-77-3	NS	NS	NS	NS	NS	NS	NS	NS
mancozeb	8018-01-7	NS	NS	NS	NS	NS	NS	NS	NS
maneb	12427-38-2	NS	NS	NS	NS	NS	NS	NS	NS
mecoprop [MCPP]	93-65-2	NS	NS	NS	NS	NS	NS	NS	NS
merphos	150-50-5	NS	NS	NS	NS	NS	NS	NS	NS
metalaxyl	57837-19-1	NS	NS	NS	NS	NS	NS	NS	NS
methacrylonitrile	126-98-7	NS	NS	NS	NS	NS	NS	NS	NS
methamidophos	10265-92-6	NS	NS	NS	NS	NS	NS	NS	NS
methidathion	950-37-8	NS	NS	NS	NS	NS	NS	NS	NS
methomyl	16752-77-5	NS	NS	NS	NS	NS	NS	NS	NS
methoxy-5-nitroaniline, 2-	99-59-2	NS	NS	NS	NS	NS	NS	NS	NS
methoxychlor	72-43-5	NS	NS	NS	NS	NS	NS	NS	NS
methoxyethanol, 2-	109-86-4	NS	NS	NS	NS	NS	NS	NS	NS
methoxyethanol acetate, 2-	110-49-6	NS	NS	NS	NS	NS	NS	NS	NS
methyl acetate	79-20-9	NS	NS	NS	NS	NS	NS	NS	NS
methyl ethyl ketone [MEK]	78-93-3	NS	NS	NS	NS	NS	NS	NS	NS
methyl hydrazine	60-34-4	NS	NS	NS	NS	NS	NS	NS	NS
methyl mercury	22967-92-6	NS	NS	NS	NS	NS	NS	NS	NS
methyl methacrylate	80-62-6	NS	NS	NS	NS	NS	NS	NS	NS
methyl tert-butyl ether [MTBE]	1634-04-4	NS	NS	NS	NS	NS	NS	NS	NS
methyl-5-nitroaniline, 2-	99-55-8	NS	NS	NS	NS	NS	NS	NS	NS
methylaniline, 2-	95-53-4	NS	NS	NS	NS	NS	NS	NS	NS
methylaniline, 4-	106-49-0	NS	NS	NS	NS	NS	NS	NS	NS
methylaniline, N-	100-61-8	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
methylcholanthrene, 3-	56-49-5	NS	NS	NS	NS	NS	NS	NS	NS
methylene-bis(2-chloroaniline), 4,4'-	101-14-4	NS	NS	NS	NS	NS	NS	NS	NS
methylene-bis(N, N-dimethyl) aniline, 4,4'-	101-61-1	NS	NS	NS	NS	NS	NS	NS	NS
methylenebisbenzenamine, 4,4'-	101-77-9	NS	NS	NS	NS	NS	NS	NS	NS
methylnaphthalene, 1-	90-12-0	NS	NS	NS	NS	NS	NS	NS	NS
methylnaphthalene, 2-	91-57-6	NS	NS	NS	NS	NS	NS	NS	NS
methylphenol, 2-	95-48-7	0.65	1	0.1	1	1	10	10	10
methylphenol, 3-	108-39-4	0.65	1	0.1	1	1	10	10	10
methylphenol, 4-	106-44-5	0.65	1	0.1	1	1	10	10	10
methylphenol, 4-chloro-3-	59-50-7	NS	NS	NS	NS	NS	NS	NS	NS
methylstyrene, alpha-	98-83-9	NS	NS	NS	NS	NS	NS	NS	NS
metolachlor	51218-45-2	NS	NS	NS	NS	NS	NS	NS	NS
metribuzin	21087-64-9	NS	NS	NS	NS	NS	NS	NS	NS
metsulfuron-methyl	74223-64-6	NS	NS	NS	NS	NS	NS	NS	NS
mirex	2385-85-5	NS	NS	NS	NS	NS	NS	NS	NS
molinate	2212-67-1	NS	NS	NS	NS	NS	NS	NS	NS
monomethylarsonic acid	124-58-3	NS	NS	NS	NS	NS	NS	NS	NS
myclobutanil	88671-89-0	NS	NS	NS	NS	NS	NS	NS	NS
naled	300-76-5	NS	NS	NS	NS	NS	NS	NS	NS
naphthylamine, 2-	91-59-8	NS	NS	NS	NS	NS	NS	NS	NS
napropamide	15299-99-7	NS	NS	NS	NS	NS	NS	NS	NS
nitrate (as N)	14797-55-8	NS	NS	NS	NS	NS	NS	NS	NS
nitrite (as N)	14797-65-0	NS	NS	NS	NS	NS	NS	NS	NS
nitroaniline, 2-	88-74-4	NS	NS	NS	NS	NS	NS	NS	NS
nitroaniline, 4-	100-01-6	NS	NS	NS	NS	NS	NS	NS	NS
nitrobenzene	98-95-3	NS	NS	NS	NS	NS	NS	NS	NS
nitrofurazone	59-87-0	NS	NS	NS	NS	NS	NS	NS	NS

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GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1, 2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number (CAS)**	**Wildlands Natural[3] (WL_N)**	**Wildlands Reverted[3] (WL_R)**	**Agricultural[4] (AL)**	**Urban Park[4] (PL)**	**Residential Low Density[5] (RL_{LD})**	**Residential High Density[6] (RL_{HD})**	**Commercial[4] (CL)**	**Industrial[4] (IL)**
nitroglycerin	55-63-0	NS	NS	NS	NS	NS	NS	NS	NS
nitroguanidine	556-88-7	NS	NS	NS	NS	NS	NS	NS	NS
nitrophenol, 2-	88-75-5	0.65	1	0.1	1	1	10	10	10
nitrophenol, 4-	100-02-7	0.65	1	0.1	1	1	10	10	10
nitropyrene, 4-	57835-92-4	NS	NS	NS	NS	NS	NS	NS	NS
nitrosodiethanolamine, N-	1116-54-7	NS	NS	NS	NS	NS	NS	NS	NS
nitrosodiethylamine, N- [NDEA]	55-18-5	NS	NS	NS	NS	NS	NS	NS	NS
nitrosodimethylamine, N- [NDMA]	62-75-9	NS	NS	NS	NS	NS	NS	NS	NS
nitroso-di-N-butylamine, N-	924-16-3	NS	NS	NS	NS	NS	NS	NS	NS
nitroso-di-N-propylamine, N-	621-64-7	NS	NS	NS	NS	NS	NS	NS	NS
nitrosodiphenylamine, N-	86-30-6	NS	NS	NS	NS	NS	NS	NS	NS
nitrosomethylethylamine, N-	10595-95-6	NS	NS	NS	NS	NS	NS	NS	NS
nitrosomorpholine, N-	59-89-2	NS	NS	NS	NS	NS	NS	NS	NS
nitrosopiperidine, N-	100-75-4	NS	NS	NS	NS	NS	NS	NS	NS
nitrosopyrrolidine, N-	930-55-2	NS	NS	NS	NS	NS	NS	NS	NS
nitrotoluene, 2-	88-72-2	NS	NS	NS	NS	NS	NS	NS	NS
nitrotoluene, 3-	99-08-1	NS	NS	NS	NS	NS	NS	NS	NS
nitrotoluene, 4-	99-99-0	NS	NS	NS	NS	NS	NS	NS	NS
nonane, n-	111-84-2	NS	NS	NS	NS	NS	NS	NS	NS
nonaqueous phase liquids[10]	NA[7]	not present[11]	not present	not present	not present	not present	not present	not present	not present
norflurazon	27314-13-2	NS	NS	NS	NS	NS	NS	NS	NS
octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine [HMX]	2691-41-0	NS	NS	NS	NS	NS	NS	NS	NS
octamethylpyrophosphoramide [OMPA]	152-16-9	NS	NS	NS	NS	NS	NS	NS	NS
octyl phthalate, di-n- [DNOP]	117-84-0	NS	NS	NS	NS	NS	NS	NS	NS
odorous substances[12]	NA[7]	not present[11]	not present	not present	not present	not present	not present	not present	not present
oryzalin	19044-88-3	NS	NS	NS	NS	NS	NS	NS	NS

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GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
oxadiazon	19666-30-9	NS	NS	NS	NS	NS	NS	NS	NS
oxamyl	23135-22-0	NS	NS	NS	NS	NS	NS	NS	NS
oxyfluorfen	42874-03-3	NS	NS	NS	NS	NS	NS	NS	NS
paclobutrazol	76738-62-0	NS	NS	NS	NS	NS	NS	NS	NS
paraquat (as dichloride)	1910-42-5	NS	NS	NS	NS	NS	NS	NS	NS
parathion	56-38-2	NS	NS	NS	NS	NS	NS	NS	NS
parathion methyl	298-00-0	NS	NS	NS	NS	NS	NS	NS	NS
pebulate	1114-71-2	NS	NS	NS	NS	NS	NS	NS	NS
pendimethalin	40487-42-1	NS	NS	NS	NS	NS	NS	NS	NS
pentachlorobenzene, 1,2,3,4,5-	608-93-5	1.5	2	0.05	2	2	10	10	10
pentachloroethane	76-01-7	NS	NS	NS	NS	NS	NS	NS	NS
pentachloronitrobenzene [PCNB]	82-68-8	NS	NS	NS	NS	NS	NS	NS	NS
pentaerythritol tetranitrate [PETN]	78-11-5	NS	NS	NS	NS	NS	NS	NS	NS
perchlorate	14797-73-0	NS	NS	NS	NS	NS	NS	NS	NS
perfluorobutane sulfonate [PFBS]	375-73-5	NS	NS	NS	NS	NS	NS	NS	NS
permethrin (cis + trans)	52645-53-1	NS	NS	NS	NS	NS	NS	NS	NS
phenanthrene	85-01-8	3	5	0.1	5	5	50	50	50
phenmedipham	13684-63-4	NS	NS	NS	NS	NS	NS	NS	NS
phenol, 2-methyl-4,6-dinitro- [DNOC]	534-52-1	0.65	1	0.1	1	1	10	10	10
phenothiazine	92-84-2	NS	NS	NS	NS	NS	NS	NS	NS
phenylenediamine, m- [MPD]	108-45-2	NS	NS	NS	NS	NS	NS	NS	NS
phenylenediamine, o- [OPD]	95-54-5	NS	NS	NS	NS	NS	NS	NS	NS
phenylenediamine, p- [PPD]	106-50-3	NS	NS	NS	NS	NS	NS	NS	NS
phenylphenol, 2-	90-43-7	NS	NS	NS	NS	NS	NS	NS	NS
phorate	298-02-2	NS	NS	NS	NS	NS	NS	NS	NS
phosmet	732-11-6	NS	NS	NS	NS	NS	NS	NS	NS
phthalic acid, p-	100-21-0	NS	NS	NS	NS	NS	NS	NS	NS
picloram	1918-02-1	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1, 2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
picramic acid	96-91-3	NS	NS	NS	NS	NS	NS	NS	NS
picric acid	88-89-1	NS	NS	NS	NS	NS	NS	NS	NS
pirimiphos- methyl	29232-93-7	NS	NS	NS	NS	NS	NS	NS	NS
prochloraz	67747-09-5	NS	NS	NS	NS	NS	NS	NS	NS
profluralin	26399-36-0	NS	NS	NS	NS	NS	NS	NS	NS
prometon	1610-18-0	NS	NS	NS	NS	NS	NS	NS	NS
prometryn	7287-19-6	NS	NS	NS	NS	NS	NS	NS	NS
propachlor	1918-16-7	NS	NS	NS	NS	NS	NS	NS	NS
propanil	709-98-8	NS	NS	NS	NS	NS	NS	NS	NS
propargite	2312-35-8	NS	NS	NS	NS	NS	NS	NS	NS
propargyl alcohol	107-19-7	NS	NS	NS	NS	NS	NS	NS	NS
propazine	139-40-2	NS	NS	NS	NS	NS	NS	NS	NS
propham	122-42-9	NS	NS	NS	NS	NS	NS	NS	NS
propiconazole	60207-90-1	NS	NS	NS	NS	NS	NS	NS	NS
propylbenzene, 1-	103-65-1	NS	NS	NS	NS	NS	NS	NS	NS
propylene glycol monomethyl ether	107-98-2	NS	NS	NS	NS	NS	NS	NS	NS
propylene oxide	75-56-9	NS	NS	NS	NS	NS	NS	NS	NS
propyzamide	23950-58-5	NS	NS	NS	NS	NS	NS	NS	NS
pyrene	129-00-0	6.5	10	0.1	10	10	100	100	100
pyridine	110-86-1	NS	NS	NS	NS	NS	NS	NS	NS
quinalphos	13593-03-8	NS	NS	NS	NS	NS	NS	NS	NS
quinoline	91-22-5	NS	NS	NS	NS	NS	NS	NS	NS
quizalofop-ethyl	76578-14-8	NS	NS	NS	NS	NS	NS	NS	NS
resmethrin	10453-86-8	NS	NS	NS	NS	NS	NS	NS	NS
ronnel	299-84-3	NS	NS	NS	NS	NS	NS	NS	NS
rotenone	83-79-4	NS	NS	NS	NS	NS	NS	NS	NS
selenious acid	7783-00-8	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
sethoxydim	74051-80-2	NS	NS	NS	NS	NS	NS	NS	NS
silver	7440-22-4	15	20	20	20	20	40	40	40
silvex	93-72-1	NS	NS	NS	NS	NS	NS	NS	NS
simazine	122-34-9	NS	NS	NS	NS	NS	NS	NS	NS
strontium	7440-24-6	NS	NS	NS	NS	NS	NS	NS	NS
strychnine	57-24-9	NS	NS	NS	NS	NS	NS	NS	NS
styrene	100-42-5	3	5	0.1	5	5	50	50	50
styrene-acrylonitrile [SAN] trimer (all isomers)	NA[7]	NS	NS	NS	NS	NS	NS	NS	NS
sulfotep	3689-24-5	NS	NS	NS	NS	NS	NS	NS	NS
sulfur, elemental	7704-34-9			2 000					
TCMTB	21564-17-0	NS	NS	NS	NS	NS	NS	NS	NS
tebuthiuron	34014-18-1	NS	NS	NS	NS	NS	NS	NS	NS
temephos	3383-96-8	NS	NS	NS	NS	NS	NS	NS	NS
terbacil	5902-51-2	NS	NS	NS	NS	NS	NS	NS	NS
terbufos	13071-79-9	NS	NS	NS	NS	NS	NS	NS	NS
terbutryn	886-50-0	NS	NS	NS	NS	NS	NS	NS	NS
tetrachlorobenzene, 1,2,3,4-	634-66-2	1.5	2	0.05	2	2	10	10	10
tetrachlorobenzene, 1,2,3,5-	634-90-2	1.5	2	0.05	2	2	10	10	10
tetrachlorobenzene, 1,2,4,5-	95-94-3	1.5	2	0.05	2	2	10	10	10
tetrachloroethane, 1,1,1,2-	630-20-6	NS	NS	NS	NS	NS	NS	NS	NS
tetrachloroethane, 1,1,2,2-	79-34-5	NS	NS	NS	NS	NS	NS	NS	NS
tetrachlorophenol, 2,3,4,5-	4901-51-3	0.3	0.5	0.05	0.5	0.5	5	5	5
tetrachlorophenol, 2,3,4,6-	58-90-2	0.3	0.5	0.05	0.5	0.5	5	5	5
tetrachlorophenol, 2,3,5,6-	935-95-5	0.3	0.5	0.05	0.5	0.5	5	5	5
tetrachlorovinphos	961-11-5	NS	NS	NS	NS	NS	NS	NS	NS
tetraethyl lead	78-00-2	NS	NS	NS	NS	NS	NS	NS	NS
tetrahydrofuran	109-99-9	NS	NS	NS	NS	NS	NS	NS	NS
tetryl	479-45-8	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1, 2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
thallium[13]	7440-28-0	5.5	9	9	9	9	25	25	25
thifensulfuron-methyl	79277-27-3	NS	NS	NS	NS	NS	NS	NS	NS
thiobencarb	28249-77-6	NS	NS	NS	NS	NS	NS	NS	NS
thiocyanate	302-04-5	NS	NS	NS	NS	NS	NS	NS	NS
thiodiglycol	111-48-8	NS	NS	NS	NS	NS	NS	NS	NS
thiofanox	39196-18-4	NS	NS	NS	NS	NS	NS	NS	NS
thiophanate- methyl	23564-05-8	NS	NS	NS	NS	NS	NS	NS	NS
thiophenol	108-98-5	NS	NS	NS	NS	NS	NS	NS	NS
thiram	137-26-8	NS	NS	NS	NS	NS	NS	NS	NS
tin	7440-31-5	30	50	5	50	50	300	300	300
toxaphene (all isomers)	8001-35-2	NS	NS	NS	NS	NS	NS	NS	NS
tralomethrin	66841-25-6	NS	NS	NS	NS	NS	NS	NS	NS
triadimefon	43121-43-3	NS	NS	NS	NS	NS	NS	NS	NS
triallate	2303-17-5	NS	NS	NS	NS	NS	NS	NS	NS
triasulfuron	82097-50-5	NS	NS	NS	NS	NS	NS	NS	NS
tribenuron-methyl	101200-48-0	NS	NS	NS	NS	NS	NS	NS	NS
tribromobenzene, 1,2,4-	615-54-3	NS	NS	NS	NS	NS	NS	NS	NS
tributos	78-48-8	NS	NS	NS	NS	NS	NS	NS	NS
tributyl phosphate	126-73-8	NS	NS	NS	NS	NS	NS	NS	NS
tributyltin	36643-28-4	NS	NS	NS	NS	NS	NS	NS	NS
trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	NS	NS	NS	NS	NS	NS	NS	NS
trichloroacetic acid	76-03-9	NS	NS	NS	NS	NS	NS	NS	NS
trichloroaniline, 2,4,6-	634-93-5	NS	NS	NS	NS	NS	NS	NS	NS
trichlorobenzene, 1,2,3-	87-61-6	1.5	2	0.05	2	2	10	10	10
trichlorobenzene, 1,2,4-	120-82-1	1.5	2	0.05	2	2	10	10	10
trichlorobenzene, 1,3,5-	108-70-3	1.5	2	0.05	2	2	10	10	10
trichloroethane, 1,1,1-	71-55-6	3	5	0.1	5	5	50	50	50
trichloroethane, 1,1,2-	79-00-5	3	5	0.1	5	5	50	50	50

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1,2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	Chemical Abstract Service Number (CAS)	Wildlands Natural[3] (WL_N)	Wildlands Reverted[3] (WL_R)	Agricultural[4] (AL)	Urban Park[4] (PL)	Residential Low Density[5] (RL_{LD})	Residential High Density[6] (RL_{HD})	Commercial[4] (CL)	Industrial[4] (IL)
trichlorofluoromethane	75-69-4	NS	NS	NS	NS	NS	NS	NS	NS
trichlorophenol, 2,3,4-	15950-66-0	0.3	0.5	0.05	0.5	0.5	5	5	5
trichlorophenol, 2,3,5-	933-78-8	0.3	0.5	0.05	0.5	0.5	5	5	5
trichlorophenol, 2,3,6-	933-75-5	0.3	0.5	0.05	0.5	0.5	5	5	5
trichlorophenol, 2,4,5-	95-95-4	0.3	0.5	0.05	0.5	0.5	5	5	5
trichlorophenol, 2,4,6-	88-06-2	0.3	0.5	0.05	0.5	0.5	5	5	5
trichlorophenol, 3,4,5-	609-19-8	0.3	0.5	0.05	0.5	0.5	5	5	5
trichlorophenoxyacetic acid, 2,4,5-[2,4,5-T]	93-76-5	NS	NS	NS	NS	NS	NS	NS	NS
trichloropropane, 1,1,2-	598-77-6	NS	NS	NS	NS	NS	NS	NS	NS
trichloropropane, 1,2,3-	96-18-4	NS	NS	NS	NS	NS	NS	NS	NS
trichloropropene, 1,2,3-	96-19-5	NS	NS	NS	NS	NS	NS	NS	NS
tricresyl phosphate [TCP]	1330-78-5	NS	NS	NS	NS	NS	NS	NS	NS
tridiphane	58138-08-2	NS	NS	NS	NS	NS	NS	NS	NS
triethylene glycol	112-27-6	NS	NS	NS	NS	NS	NS	NS	NS
trifluralin	1582-09-8	NS	NS	NS	NS	NS	NS	NS	NS
trimethyl phosphate	512-56-1	NS	NS	NS	NS	NS	NS	NS	NS
trimethylbenzene, 1,3,5-	108-67-8	NS	NS	NS	NS	NS	NS	NS	NS
trinitrobenzene, 1,3,5-	99-35-4	NS	NS	NS	NS	NS	NS	NS	NS
trinitrotoluene, 2,4,6-	118-96-7	NS	NS	NS	NS	NS	NS	NS	NS
tris(1,3-dichloro-2-propyl) phosphate [TDCPP]	13674-87-8	NS	NS	NS	NS	NS	NS	NS	NS
tris(1-chloro-2-propyl)phosphate [TCPP]	13674-84-5	NS	NS	NS	NS	NS	NS	NS	NS
tris(2,3-dibromopropyl)phosphate	126-72-7	NS	NS	NS	NS	NS	NS	NS	NS
tris(2-chloroethyl)phosphate [TCEP]	115-96-8	NS	NS	NS	NS	NS	NS	NS	NS
tris(2-ethylhexyl)phosphate	78-42-2	NS	NS	NS	NS	NS	NS	NS	NS
tungsten	7440-33-7	NS	NS	NS	NS	NS	NS	NS	NS

SCHEDULE 3.1 – PART 3

GENERIC NUMERICAL SOIL STANDARDS TO PROTECT ECOLOGICAL HEALTH[1, 2]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9	COLUMN 10
Substance	**Chemical Abstract Service Number (CAS)**	**Wildlands Natural[3] (WL_N)**	**Wildlands Reverted[3] (WL_R)**	**Agricultural[4] (AL)**	**Urban Park[4] (PL)**	**Residential Low Density[5] (RL_{LD})**	**Residential High Density[6] (RL_{HD})**	**Commercial[4] (CL)**	**Industrial[4] (IL)**
vernolate	1929-77-7	NS	NS	NS	NS	NS	NS	NS	NS
vinclozolin	50471-44-8	NS	NS	NS	NS	NS	NS	NS	NS
vinyl acetate	108-05-4	NS	NS	NS	NS	NS	NS	NS	NS
vinyl chloride	75-01-4	NS	NS	NS	NS	NS	NS	NS	NS
VPHs[14]	NA[7]	150	200	200	200	200	200	200	200
warfarin	81-81-2	NS	NS	NS	NS	NS	NS	NS	NS
zineb	12122-67-7	NS	NS	NS	NS	NS	NS	NS	NS

Notes

1. All values in µg/g unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol, or alternate methods acceptable to a director. The high density residential land use standards of this schedule assume the prohibition of the use of the land (a) to grow plants for human consumption, and (b) as a children's playground, sports field, picnic area or any other use that promotes frequent contact by children. Consult a director for further advice.
2. NS - Insufficient acceptable scientific data exists to calculate a standard or no appropriate standard, guideline or criterion exists to develop a soil quality standard.
3. Standard is derived in accordance with Protocol 28, "2016 Standards Derivation Methods", unless otherwise noted.
4. Standard is set equal to the corresponding land use soil standard for the substance in Schedule 4 of this regulation, as it read before the repeal of that schedule, unless otherwise noted.
5. Standard has been set to equal the Residential (RL) land use soil standard for the substance in Schedule 4 of this regulation, as it read before the repeal of that schedule, unless otherwise noted.
6. Standard has been set to equal the Commercial (CL) land use soil standard for the substance in Schedule 4 of this regulation, as it read before the repeal of that schedule, unless otherwise noted.
7. NA – not applicable. No CAS number exists for the substance.
8. HEPHs - Heavy Extractable Petroleum Hydrocarbons in soil, as defined in 2015 British Columbia Environmental Laboratory Manual and updated from time to time.
9. LEPHs - Light Extractable Petroleum Hydrocarbons in soil, as defined in 2015 British Columbia Environmental Laboratory Manual and updated from time to time.
10. Soil must be remediated so that nonaqueous phase liquids are not present in quantities in excess of that acceptable to a director.
11. Standard is set equal to the Urban Park (PL) land use soil standard for the substance in Schedule 4 of this regulation, as it read before the repeal of that schedule.
12. Soil must be remediated so that odorous substances are not present in quantities in excess of that acceptable to a director.
13. Standards have been derived in accordance with Protocol 28, "2016 Standards Derivation Methods".
14. VPHs - Volatile Petroleum Hydrocarbons in soil, as defined in 2015 British Columbia Environmental Laboratory Manual and updated from time to time.

SCHEDULE 3.2

[en. B.C. Reg. 13/2019, s. 12.]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
acenaphthene	83-32-9	60			250[4]
acephate	30560-19-1				15[4]
acetic acid, 2-methyl-4-chlorophenoxy- [MCPA]	94-74-6	26[5], 42[6]	0.025	25	100[7]
acetochlor	34256-82-1				80[4]
acetone	67-64-1				3 500[4]
acetophenone	98-86-2				400[4]
acridine	260-94-6	0.5			
acrolein	107-02-8	10		3[8]	3[4,8]
acrylamide	79-06-1				0.1[4]
acrylic acid	79-10-7				2 000[4]
acrylonitrile	107-13-1				5[4,8]
adipic acid	124-04-9				8 000[4]
alachlor	15972-60-8				3[4]
aldicarb	116-06-3	10[5], 1.5[6]	54.9[9], 67.5[10]	11	4[4]
aldicarb sulfone	1646-88-4				4[4]
aldrin	309-00-2	0.04[11]		0.7[11]	0.009[4]
allyl alcohol	107-18-6				20[4]
allyl chloride	107-05-1				7.5[4]
aluminum	7429-90-5		5 000	5 000	9 500[12,13]
ametryn	834-12-8				35[4]
aminobiphenyl, 4-	92-67-1				0.0075[4]
aminophenol, 3-	591-27-5				300[4]
aminophenol, 4-	123-30-8				80[4]
amitraz	33089-61-1				10[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
ammonia, total (as N)	7664-41-7	1 310 @ pH ≥ 8.5[5,14] 3 700 @ pH 8.0 - < 8.5[5,14] 11 300 @ pH 7.5 - < 8.0[5,14] 18 500 @ pH 7.0 - < 7.5[5,14] 18 400 @ pH < 7.0[5,14] 2 300 @ pH ≥ 8.5[6,15] 6 850 @ pH 8.0 - < 8.5[6,15] 20 000 @ pH 7.5 - < 8.0[6,15] 64 000 @ pH 7.0 - < 7.5[6,15] 200 000 @ pH < 7.0[6,15]			
aniline	62-53-3	20			30[4]
anthracene	120-12-7	1			1000[4]
anthraquinone, 9,10-	84-65-1				4[4]
antimony	7440-36-0	90[5], 2 500[6]			6[7]
aramite	140-57-8				6[4]
arsenic	7440-38-2	50[5], 125[6]	100	25	10[7]
asbestos	1332-21-4				7 m.f./L[16]
asulam	3337-71-1				200[4]
atrazine	1912-24-9	20[5], 100[6]	10	60	5[7]
auramine	492-80-8				0.2[4]
azinphos-methyl	86-50-0			20	20[7]
azobenzene	103-33-3				1.5[4]
azodicarbonamide	123-77-3				4 000[4]
barium	7440-39-3	10 000[5], 5 000[6]			1 000[7]
benfluralin	1861-40-1				1 000[4]
benomyl	17804-35-2				200[4]
bensulfuron-methyl	83055-99-6				800[4]
bentazon	25057-89-0				100[4]
benz(a)anthracene	56-55-3	1			0.07[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
benzene	71-43-2	400[5], 1 000[6]			5[7]
benzidine	92-87-5				0.1[4,8]
benzo(a)pyrene	50-32-8	0.1			0.01[7]
benzo(b+j)fluoranthenes	205-99-2 & 205-82-3				0.07[4]
benzoic acid	65-85-0				15 000[4]
benzotrichloride	98-07-7				0.5[4,8]
benzyl alcohol	100-51-6				400[4]
benzyl chloride	100-44-7				0.9[4]
beryllium	7440-41-7	1.5[5], 1 000[6]	100	100	8[4]
bifenox	42576-02-3				35[4]
biphenyl, 1,1'-	92-52-4				2 000[4]
bis(2-chloroethoxy) methane	111-91-1				10[4]
bis(2-chloroethyl) ether	111-44-4				0.15[4]
bis(2-chloro-1-methylethyl) ether	108-60-1				150[4]
bis(2-ethylhexyl) adipate	103-23-1				150[4]
bis(2-ethylhexyl) phthalate [DEHP]	117-81-7	160			10[4]
bisphenol A	80-05-7				200[4]
boron	7440-42-8	12 000	500 - 6 000[17]	5 000	5 000[7]
bromacil	314-40-9	50	0.2[18], 0.6[19]	1 100	
bromate	15541-45-4				10[7]
bromo-2-chloroethane, 1-	107-04-0				1[4,8]
bromobenzene	108-86-1				30[4]
bromodichloromethane [BDCM]	75-27-4			100	100[7,20]
bromoform	75-25-2			100	100[7,20]
bromomethane	74-83-9				5.5[4]
bromophos	2104-96-3				20[4]
bromoxynil	1689-84-5	50	0.35[10]	11	5[7]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
butadiene, 1,3-	106-99-0				1[4,8]
butanoic acid, 4-(4-chloro-2-methylphenoxy)- [MCPB]	94-81-5				40[4]
butanol, 2-	78-92-2				8 000[4]
butanol, n-	71-36-3				400[4]
butoxy ethanol, 2-	111-76-2				400[4]
butyl benzyl phthalate	85-68-7				80[4]
butyl phthalyl butyl glycolate	85-70-1				4 000[4]
butylate	2008-41-5				200[4]
butylated hydroxytoluene [BHT]	128-37-0				45[4]
butylbenzene, n-	104-51-8				200[4]
butylbenzene, sec-	135-98-8				400[4]
butylbenzene, tert-	98-06-6				400[4]
cacodylic acid	75-60-5				80[4]
cadmium	7440-43-9	0.5 @ H < 30[5,21] 1.5 @ H 30 - < 90[5,21] 2.5 @ H 90 - < 150[5,21] 3.5 @ H 150 - < 210[5,21] 4 @ H ≥ 210[5,21] 15[6]	5	80	5[7]
calcium	7440-70-2			1 000 mg/L	
caprolactam	105-60-2				2 000[4]
captafol	2425-06-1				1[4]
captan	133-06-2	15		10	70[4]
carbaryl	63-25-2	2[5], 3[6]		1 100	90[7]
carbofuran	1563-66-2	18		45	90[7]
carbon disulfide	75-15-0				400[4]
carbon tetrachloride	56-23-5	130		5	2[7]
carbosulfan	55285-14-8				40[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
carboxin	5234-68-4				400[4]
catechol	120-80-9	2 000[22]			
chloramben	133-90-4				60[4]
chloranil	118-75-2				0.4[4]
chlordane (cis + trans)	5103-71-9 & 5103-74-2	0.06		7	0.45[4]
chlordecone	143-50-0				0.015[4]
chlorfenvinphos	470-90-6				3[4]
chloride ion	16887-00-6	1 500 mg/L[5]	100 mg/L[23]	600 mg/L	250 mg/L[7,24]
chlorimuron, ethyl-	90982-32-4				80[4]
chlorine (Cl_2)[25]	7782-50-5	20[5], 30[6]	1 000		
chloro-2-methylaniline, 4-	95-69-2				1.5[4]
chloroacetaldehyde, 2-	107-20-0				0.6[4]
chloroaniline, p-	106-47-8				0.8[4]
chlorobenzene	108-90-7	13[5], 250[6]			80[7,13]
chlorobenzilate	510-15-6				1.5[4]
chlorobenzoic acid, 4-	74-11-3				100[4]
chlorobenzotrichloride, 4-	5216-25-1				0.05[4,8]
chlorobenzotrifluoride, 4-	98-56-6				10[4]
chlorobutane, 1-	109-69-3				150[4]
chloroethanol, 2-	107-07-3				80[4]
chloroform	67-66-3	20		100	100[7,20]
chloronaphthalene, 2-	91-58-7				300[4]
chloronitrobenzene, 2-	88-73-3				0.5[4]
chloronitrobenzene, 4-	100-00-5				4[4]
chlorophenol, 2-	95-57-8	19.5 – 2 600[26]		0.1[24,27]	45[12,13]
chlorophenol, 3-	108-43-0	17 – 2 300[26]		0.1[24,27]	
chlorophenol, 4-	106-48-9	8.5 – 1 180[26]		0.1[24,27]	

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
chloroprene	126-99-8				80[4]
chlorothalonil	1897-45-6	2[5], 4[6]	5.8	170	50[4]
chlorotoluene, 2-	95-49-8				80[4]
chlorotoluene, 4-	106-43-4				80[4]
chlorpropham	101-21-3				800[4]
chlorpyrifos	2921-88-2	0.02		24	90[7]
chlorpyrifos-methyl	5598-13-0				40[4]
chlorsulfuron	64902-72-3				200[4]
chlorthal-dimethyl	1861-32-1				40[4]
chlorthiophos	60238-56-4				3[4]
chromium, hexavalent[28]	18540-29-9	10[5], 15[6]	8	50	50[7]
chromium, trivalent[28]	16065-83-1	90[5], 560[6]	5	50	6 000[4]
chrysene	218-01-9	1			7[4]
clofentezine	74115-24-5				50[4]
cobalt	7440-48-4	40	50	1 000	1[4]
copper	7440-50-8	20 @ H < 50[5,21] 30 @ H = 50 - < 75[5,21] 40 @ H = 75 - < 100[5,21] 50 @ H = 100 - < 125[5,21] 60 @ H = 125 - < 150[5,21] 70 @ H = 150 - < 175[5,21] 80 @ H = 175 - < 200[5,21] 90 @ H ≥ 200[5,21] 20[6]	200	300	1 500[12,13]
crotonaldehyde, trans-	123-73-9				5[4,8]
cyanazine	21725-46-2	20	0.5	10	0.2[4]
cyanide	57-12-5	50[5,29], 10[6,29]			200[7,30]
cyanogen	460-19-5				4[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3				7[4]
cyclohexanone	108-94-1				20 000[4]
cyclohexene	110-83-8				20[4]
cyclohexylamine	108-91-8				800[4]
cyfluthrin	68359-37-5				100[4]
cyhalothrin	68085-85-8				20[4]
cypermethrin	52315-07-8				40[4]
cyromazine	66215-27-8				30[4]
dalapon	75-99-0				100[4]
daminozide	1596-84-5				8.5[4]
deltamethrin	52918-63-5	0.1[8]		2.5	
demeton	8065-48-3				0.15[4]
diallate	2303-16-4				2.5[4]
diaminotoluene, 2,5-	95-70-5				1[4]
diazinon	333-41-5	0.03		14	20[7]
dibenz(a,h)anthracene	53-70-3				0.01[4,8]
dibenzofuran	132-64-9				4[4]
dibenzothiophene	132-65-0				40[4]
dibromo-3-chloropropane, 1,2-	96-12-8				0.5[4,8]
dibromobenzene, 1,3-	108-36-1				1.5[4]
dibromobenzene, 1,4-	106-37-6				40[4]
dibromochloromethane [DBCM]	124-48-1			100	100[7,20]
dibromoethane, 1,2-	106-93-4				0.5[4,8]
dibutyl phthalate [DBP]	84-74-2	190			400[4]
dibutyltin	14488-53-0	0.8			
dicamba	1918-00-9	100	0.1[8]	122	120[7]
dichlorobenzene, 1,2-	95-50-1	7[5], 420[6]			200[7,13]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
dichlorobenzene, 1,3-	541-73-1	1 500			
dichlorobenzene, 1,4-	106-46-7	260			$5^{7,13}$
dichlorobenzidine, 3,3'-	91-94-1				0.35^{4}
dichlorodifluoromethane	75-71-8				800^{4}
dichlorodiphenyl sulfone, 4,4'-	80-07-9				3^{4}
dichlorodiphenyltrichloroethane, total [DDT][31]	NA[32]	0.01		30	0.45^{4}
dichloroethane, 1,1-	75-34-3				30^{4}
dichloroethane, 1,2-	107-06-2	1 000		5	5^{7}
dichloroethylene, 1,1-	75-35-4				14^{7}
dichloroethylene, 1,2-cis-	156-59-2				8^{4}
dichloroethylene, 1,2-trans-	156-60-5				80^{4}
dichloromethane	75-09-02	980		50	50^{7}
dichlorophenol, 2,3-	576-24-9	5.5 – 760[26]		$0.3^{24,33}$	
dichlorophenol, 2,4-	120-83-2	3 - 400[26]		$0.3^{24,33}$	$900^{7,13}$
dichlorophenol, 2,5-	583-78-8	2.5 - 340[26]		$0.3^{24,33}$	
dichlorophenol, 2,6-	87-65-0	10 – 1 360[26]		$0.3^{24,33}$	
dichlorophenol, 3,4-	95-77-2	3 - 400[26]		$0.3^{24,33}$	
dichlorophenol, 3,5-	591-35-5	2.5 - 300[26]		$0.3^{24,33}$	
dichlorophenoxyacetic acid, 2,4-[2,4-D]	94-75-7	40		100	100^{7}
dichlorophenoxy(2,4-)butyric acid, 4-[2,4-DB]	94-82-6				30^{4}
dichloropropane, 1,2-	78-87-5				4.5^{4}
dichloropropane, 1,3-	142-28-9				80^{4}
dichloropropanol, 2,3-	616-23-9				10^{4}
dichloropropene, 1,3- (cis + trans)	542-75-6				1.5^{4}
dichlorvos	62-73-7				0.55^{4}

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
diclofop-methyl	51338-27-3	61	0.18	9	9[7]
dicrotophos	141-66-2				0.4[4]
dicyclopentadiene	77-73-6				300[4]
dieldrin	60-57-1	0.04[11]		0.7	0.01[4]
diethanolamine	111-42-2				8[4]
diethyl ether	60-29-7				800[4]
diethyl phthalate	84-66-2				3 000[4]
diethyldithiocarbamate	392-74-5				0.6[4]
diethylene glycol monobutyl ether	112-34-5				100[4]
diethylene glycol monoethyl ether	111-90-0				250[4]
diethylformamide	617-84-5				4[4]
diflubenzuron	35367-38-5				80[4]
diisobutylene	25167-70-8				40[4]
diisopropanolamine [DIPA][34]	110-97-4	15 000	39 000	38 000	3 500[12]
dimethipin	55290-64-7				80[4]
dimethoate	60-51-5	62		3	20[7]
dimethoxybenzidine, 3,3'-	119-90-4				0.1[4]
dimethyl methylphosphonate	756-79-6				90[4]
dimethylaminoazobenzene, 4- [DAB]	60-11-7				0.035[4]
dimethylaniline, 2,4-	95-68-1				0.8[4]
dimethylaniline, N,N- [DMA]	121-69-7				8[4]
dimethylbenz(a)anthracene, 7,12-	57-97-6				0.02[4,8]
dimethylbenzidine, 3,3'-	119-93-7				0.015[4]
dimethylformamide	68-12-2				400[4]
dimethylhydrazine, 1,1-	57-14-7				0.4[4]
dimethylphenol, 2,4-	105-67-9				80[4]
dimethylphenol, 2,6-	576-26-1				2.5[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
dimethylphenol, 3,4-	95-65-8				4[4]
dimethylterephthalate	120-61-6				400[4]
dinitrobenzene, 1,2-	528-29-0				0.4[4]
dinitrobenzene, 1,3-	99-65-0				0.4[4]
dinitrobenzene, 1,4-	100-25-4				0.4[4]
dinitro-o-cyclohexyl phenol, 4,6-	131-89-5				8[4]
dinitrophenol, 2,4-	51-28-5	2 000[22]			8[4]
dinitrotoluene, 2,4-	121-14-2				0.5[4]
dinitrotoluene, 2,6-	606-20-2				0.1[4]
dinitrotoluene, 2-amino-4,6-	35572-78-2				8[4]
dinitrotoluene, 4-amino-2,6-	19406-51-0				8[4]
dinoseb	88-85-7	0.5	16[23], 46[35], 93[19]	150[36]	4[4]
dioxane, 1,4-	123-91-1				1.5[4]
diphenamid	957-51-7				100[4]
diphenyl sulfone	127-63-9				3[4]
diphenyl-1,4-benzenediamine, N,N'-	74-31-7				1[4]
diphenylamine	122-39-4				100[4]
diquat (as dibromide)	85-00-7			70	70[7]
Direct Black 38	1937-37-7				0.02[4]
Direct Brown 95	16071-86-6				0.025[4]
disulfoton	298-04-4				0.15[4]
diuron	330-54-1			150	150[7]
dodine	2439-10-3				15[4]
endosulfan I + II	115-29-7	0.01[5,8], 0.015[6]			25[4]
endothall	145-73-3				80[4]
endrin	72-20-8	0.023		0.2	1[4]
EPHw10-19[37,38]	NA[32]	5 000	5 000	5 000	5 000

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
EPTC	759-94-4				100[4]
ethanol, 2-(2-methoxyethoxy)-	111-77-3				150[4]
ethephon	16672-87-0				20[4]
ethinylestradiol, 17-alpha [EE2][39]	57-63-6	0.005			
ethion	563-12-2				2[4]
ethoxyethanol acetate, 2-	111-15-9				400[4]
ethoxyethanol, 2-	110-80-5				350[4]
ethyl acetate	141-78-6				3 500[4]
ethyl acrylate	140-88-5				20[4]
ethyl p-nitrophenyl benzenethionophosphonate [EPN]	2104-64-5				0.04[4]
ethylbenzene	100-41-4	2 000[5], 2 500[6]			140[7,13]
ethylene cyanohydrin	109-78-4				300[4]
ethylenediamine	107-15-3				350[4]
ethylene glycol	107-21-1	1 920 mg/L			8 000[4]
ethylene thiourea	96-45-7				0.3[4]
ethyleneimine	151-56-4				0.1[4,8]
fenamiphos	22224-92-6				1[4]
fenpropathrin	39515-41-8				100[4]
fenvalerate	51630-58-1				100[4]
fluometuron	2164-17-2				50[4]
fluoranthene	206-44-0	2			150[4]
fluorene	86-73-7	120			150[4]
fluoride	16984-48-8	2 000 @ H < 50[5,21] 3 000 @ H ≥ 50[5,21] 15 000[6]	1 000	1 000[40]	1 500[7]
fluridone	59756-60-4				300[4]
flurprimidol	56425-91-3				80[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
flusilazole	85509-19-9				3[4]
flutolanil	66332-96-5				250[4]
fluvalinate	69409-94-5				40[4]
folpet	133-07-3				45[4]
fomesafen	72178-02-0				0.8[4]
fonofos	944-22-9				8[4]
formaldehyde	50-00-0				800[4]
formic acid	64-18-6				3 500[4]
fosetyl	15845-66-6				10 000[4]
furan	110-00-9				4[4]
furazolidone	67-45-8				0.04[4]
furfural	98-01-1				10[4]
furmecyclox	60568-05-0				5[4]
furothiazole	531-82-8				0.1[4]
glufosinate	53369-07-6				1.5[4]
glycidaldehyde	765-34-4				1.5[4]
glyphosate	1071-83-6	5 000		280	280[7]
guanidine	113-00-8				40[4]
haloxyfop, methyl	69806-40-2				0.2[4]
heptachlor	76-44-8	0.1[41]		3[41]	0.035[4]
heptachlor epoxide	1024-57-3	0.1[41]		3[41]	0.015[4]
hexabromobiphenyl, 2,2',4,4',5,5'-	59536-65-1				0.005[4]
hexachlorobenzene	118-74-1			0.5	0.1[4]
hexachlorobutadiene	87-68-3	15			2[4]
hexachlorocyclohexane, alpha	319-84-6	0.1[42]		4[42]	0.025[4]
hexachlorocyclohexane, beta	319-85-7	0.1[42]		4[42]	0.085[4]
hexachlorocyclohexane, gamma	58-89-9	0.1[42]		4[42]	0.15[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
hexachlorocyclopentadiene	77-47-4				25[4]
hexachloroethane	67-72-1				3[4]
hexachlorophene	70-30-4				1[4]
hexahydro-1,3,5-trinitro-1,3,5-triazine [RDX]	121-82-4				1.5[4]
hexamethylphosphoramide	680-31-9				1.5[4]
hexanone, 2-	591-78-6				20[4]
hexazinone	51235-04-2				150[4]
hexythiazox	78587-05-0				100[4]
hydramethylnon	67485-29-4				1[4]
hydrazine	302-01-2				0.05[4]
hydroquinone	123-31-9	45[22]			2.5[4]
imazalil	35554-44-0				50[4]
imazaquin	81335-37-7				1 000[4]
imazethapyr	81335-77-5				1 000[4]
iprodione	36734-19-7				150[4]
iron[43,44]	7439-89-6		5 000		6 500[12,13]
isobutanol	78-83-1				1 000[4]
isophorone	78-59-1				150[4]
isopropalin	33820-53-0				60[4]
isopropanol	67-63-0				8 000[4]
isopropylbenzene	98-82-8				400[4]
isoxaben	82558-50-7				200[4]
lactofen	77501-63-4				8[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
lead	7439-92-1	40 @ H < 50[5,21] 50 @ H = 50 - < 100[5,21] 60 @ H = 100 - < 200[5,21] 110 @ H = 200 - < 300[5,21] 160 @ H ≥ 300[5,21] 20[6]	200	100	10[7]
LEPHw[45]	NA[32]	500			
linuron	330-55-2	70	0.07[18], 3.3[19]		8[4]
lithium	7439-93-2		2 500[23]	5 000	8[4]
malathion	121-75-5	1		190	190[7]
malononitrile	109-77-3				0.4[4]
mancozeb	8018-01-7				100[4]
maneb	12427-38-2				20[4]
manganese[46,47]	7439-96-5		200		1 500[12,13]
mecoprop [MCPP]	93-65-2				4[4]
mercury	7439-97-6	0.25	1	2	1[7]
merphos	150-50-5				0.1[4]
metalaxyl	57837-19-1				250[4]
methacrylonitrile	126-98-7				5[4,8]
methamidophos	10265-92-6				0.2[4]
methanol	67-56-1				8 000[4]
methidathion	950-37-8				4[4]
methomyl	16752-77-5				100[4]
methoxy-5-nitroaniline, 2-	99-59-2				3[4]
methoxychlor	72-43-5			900	20[4]
methoxyethanol acetate, 2-	110-49-6				30[4]
methoxyethanol, 2-	109-86-4				20[4]
methyl acetate	79-20-9				4 000[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
methyl ethyl ketone [MEK]	78-93-3				2 500[4]
methyl hydrazine	60-34-4				4[4]
methyl mercury	22967-92-6	0.04			0.4[4]
methyl methacrylate	80-62-6				5 500[4]
methyl tert-butyl ether [MTBE]	1634-04-4	34 000[5], 4 400[6]		11 000	95[12,13]
methyl-5-nitroaniline, 2-	99-55-8				15[4]
methylaniline, 2-	95-53-4				1[4]
methylaniline, 4-	106-49-0				5[4]
methylaniline, N-	100-61-8				8[4]
methylcholanthrene, 3-	56-49-5				0.02[4,8]
methylene-bis(2-chloroaniline), 4,4'-	101-14-4				0.5[4]
methylene-bis(N,N-dimethyl) aniline, 4,4'-	101-61-1				3.5[4]
methylenebisbenzenamine, 4,4'-	101-77-9				0.1[4]
methylnaphthalene, 1-	90-12-0				5.5[4]
methylnaphthalene, 2-	91-57-6				15[4]
methylphenol, 2-	95-48-7	2 500[22]			200[4]
methylphenol, 3-	108-39-4	800[22]			200[4]
methylphenol, 4-	106-44-5	700[22]			400[4]
methylphenol, 4-chloro-3-	59-50-7				400[4]
methylstyrene, alpha-	98-83-9				300[4]
metolachlor	51218-45-2	80	28	50	50[7]
metribuzin	21087-64-9	10	0.5	80	80[7]
metsulfuron-methyl	74223-64-6				1 000[4]
mirex	2385-85-5				0.0085[4]
molinate	2212-67-1				8[4]
molybdenum	7439-98-7	10 000	10 – 30[48]	50	250[49]
monochloramine[25]	10599-90-3	5			3 000[7]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
monochloroacetic acid	79-11-8				80[7,50]
monomethylarsonic acid	124-58-3				40[4]
myclobutanil	88671-89-0				100[4]
naled	300-76-5				8[4]
naphthalene	91-20-3	10			80[4]
naphthylamine, 2-	91-59-8				0.085[4]
napropamide	15299-99-7				400[4]
nickel	7440-02-0	250 @ H < 60[5,21] 650 @ H 60 - < 120[5,21] 1 100 @ H 120 - < 180[5,21] 1 500 @ H ≥ 180[5,21] 83[6]	200	1 000	80[4]
nitrate (as N)	14797-55-8	400 mg/L[51]		100 mg/L[52]	10 mg/L[7,52]
nitrate and nitrite (as N)	NA[32]	400 mg/L[51]		100 mg/L[52]	10 mg/L[7,52]
nitrilotriacetic acid [NTA]	139-13-9				400[7]
nitrite (as N)	14797-65-0	200 (Cl < 2 mg/L)[53] 400 (Cl 2 - < 4 mg/L)[53] 600 (Cl 4 - < 6 mg/L)[53] 800 (Cl 6 - < 8 mg/L)[53] 1 000 (Cl 8 - < 10 mg/L)[53] 2 000 (Cl ≥ 10 mg/L)[53]		10 000	1 000[7]
nitroaniline, 2-	88-74-4				40[4]
nitroaniline, 4-	100-01-6				8[4]
nitrobenzene	98-95-3				8[4]
nitrofurazone	59-87-0				0.1[4]
nitroglycerin	55-63-0				0.4[4]
nitroguanidine	556-88-7				400[4]
nitropyrene, 4-	57835-92-4				0.15[4]
nitrosodiethanolamine, N-	1116-54-7				0.055[4]
nitrosodiethylamine, N- [NDEA]	55-18-5				0.005[4,8]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
nitrosodimethylamine, N- [NDMA]	62-75-9				0.04[7]
nitroso-di-N-butylamine, N-	924-16-3				0.03[4]
nitroso-di-N-propylamine, N-	621-64-7				0.02[4]
nitrosodiphenylamine, N-	86-30-6				30[4]
nitrosomethylethylamine, N-	10595-95-6				0.007[4]
nitrosomorpholine, N-	59-89-2				0.025[4]
nitrosopiperidine, N-	100-75-4				0.015[4]
nitrosopyrrolidine, N-	930-55-2				0.075[4]
nitrotoluene, 2-	88-72-2				0.7[4]
nitrotoluene, 3-	99-08-1				0.4[4]
nitrotoluene, 4-	99-99-0				10[4]
nonane, n-	111-84-2				1[4]
nonaqueous phase liquids[37,54]	NA[32]	not present	not present	not present	not present
nonylphenol and nonylphenol ethoxylates[55,56]	84852-15-3	10[5], 7[6]			45[12]
norflurazon	27314-13-2				150[4]
octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine [HMX]	2691-41-0				200[4]
octamethylpyrophosphoramide [OMPA]	152-16-9				8[4]
octyl phthalate, di-N- [DNOP]	117-84-0				40[4]
oryzalin	19044-88-3				200[4]
oxadiazon	19666-30-9				20[4]
oxamyl	23135-22-0				100[4]
oxyfluorfen	42874-03-3				10[4]
paclobutrazol	76738-62-0				50[4]
paraquat (as dichloride)	1910-42-5			10	10[7]
parathion	56-38-2			50	25[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
parathion, methyl	298-00-0				1^{4}
pebulate	1114-71-2				200^{4}
pendimethalin	40487-42-1				150^{4}
pentachlorobenzene, 1,2,3,4,5-	608-93-5	60			3^{4}
pentachloroethane	76-01-7				1.5^{4}
pentachloronitrobenzene [PCNB]	82-68-8				0.6^{4}
pentachlorophenol [PCP]	87-86-5	$1 - 110^{26}$		30^{24}	$60^{7,13}$
pentaerythritol tetranitrate [PETN]	78-11-5				8^{4}
perchlorate	14797-73-0				3^{4}
perfluorobutane sulfonate [PFBS][57]	375-73-5				80^{4}
perfluorooctane sulfonate [PFOS][57]	1763-23-1	60			0.3^{12}
perfluorooctanoic acid [PFOA][57]	335-67-1				0.2^{12}
permethrin (cis + trans)	52645-53-1	0.04^{5}, 0.01^{6}			450^{12}
phenanthrene	85-01-08	3			
phenmedipham	13684-63-4				$1\ 000^{4}$
phenol	108-95-2	$2\ 000^{22}$			$1\ 000^{4}$
phenol, 2-methyl-4,6-dinitro [DNOC]	534-52-1	750^{22}			$1^{4,8}$
phenothiazine	92-84-2				2^{4}
phenylenediamine, m- [MPD]	108-45-2				25^{4}
phenylenediamine, o- [OPD]	95-54-5				3.5^{4}
phenylenediamine, p- [PPD]	106-50-3				750^{4}
phenylphenol, 2-	90-43-7				80^{4}
phorate	298-02-2			2	2^{7}
phosmet	732-11-6				80^{4}
phthalic acid, p-	100-21-0				$4\ 000^{4}$
picloram	1918-02-1	290	0.5	190	190^{7}
picramic acid	96-91-3				0.4^{4}

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
picric acid	88-89-1				3.5[4]
pirimiphos, methyl	29232-93-7				40[4]
prochloraz	67747-09-5				1[4]
profluralin	26399-36-0				25[4]
prometon	1610-18-0				60[4]
prometryn	7287-19-6				15[4]
propachlor	1918-16-7				50[4]
propanil	709-98-8				20[4]
propargite	2312-35-8				80[4]
propargyl alcohol	107-19-7				8[4]
propazine	139-40-2				80[4]
propham	122-42-9				80[4]
propiconazole	60207-90-1				50[4]
propylbenzene, 1-	103-65-1				400[4]
propylene glycol, 1,2-	57-55-6	5 000 mg/L			80 mg/L[4]
propylene glycol monomethyl ether	107-98-2				3 000[4]
propylene oxide	75-56-9				0.65[4]
propyzamide	23950-58-5				300[4]
pyrene	129-00-0	0.2			100[4]
pyridine	110-86-1				4[4]
quinalphos	13593-03-8				2[4]
quinoline	91-22-5	34			0.05[4]
quizalofop-ethyl	76578-14-8				35[4]
resmethrin	10453-86-8				100[4]
resorcinol	108-46-3	150[22]			4 500[12]
ronnel	299-84-3				200[4]
rotenone	83-79-4				15[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
salinity[58]	NA[32]	15[5,59,60] 10 if natural salinity is 0 - < 3.5[6,59,61] 20 if natural salinity is 3.5 - < 13.5[6,59,61] 40 if natural salinity is 13.5 – ≥ 35[6,59,61]			
selenious acid	7783-00-8				20[4]
selenium	7782-49-2	20	20[62], 50[63]	30	10[64]
sethoxydim	74051-80-2				350[4]
silver	7440-22-4	0.5 @ H ≤ 100[5,21] 15 @ H > 100[5,21] 15[6]			20[4]
silvex	93-72-1				30[4]
simazine	122-34-9	100	0.5	10	10[7]
sodium ion	17341-25-2				200 mg/L[12]
strontium	7440-24-6				2 500[4]
strychnine	57-24-9				1[4]
styrene	100-42-5	720			800[4]
styrene-acrylonitrile [SAN] trimer (all isomers)	NA[32]				10[4]
sulfate	14808-79-8	1 280 mg/L @ H ≤ 30[21] 2 180 mg/L @ H 31 – 75[21] 3 090 mg/L @ H 76 – 180[21] 4 290 mg/L @ H > 180[21]		1 000 mg/L	500 mg/L[7,24]
sulfide (as H_2S)[65]	7783-06-4	20			50[7,24]
sulfolane[34]	126-33-0	500 000	8 400	14 000	90[12]
sulfotep	3689-24-5				2[4]
TCMTB	21564-17-0				100[4]
tebuthiuron	34014-18-1	16	0.25[19]	130	300[4]
temephos	3383-96-8			280	80[4]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
terbacil	5902-51-2				50[4]
terbufos	13071-79-9			1	1[7]
terbutryn	886-50-0				4[4]
tetrachlorobenzene, 1,2,3,4-	634-66-2	18			
tetrachlorobenzene, 1,2,4,5-	95-94-3				1[4]
tetrachloroethane, 1,1,1,2-	630-20-6				6[4]
tetrachloroethane, 1,1,2,2-	79-34-5				0.8[4]
tetrachloroethylene	127-18-4	1 100			30[7]
tetrachlorophenol, 2,3,4,5-	4901-51-3	2 – 260[26]		1[24,66]	
tetrachlorophenol, 2,3,4,6-	58-90-2	5.5 – 720[26]		1[24,66]	100[7,13]
tetrachlorophenol, 2,3,5,6-	935-95-5	2.5 – 340[26]		1[24,66]	
tetrachlorovinphos	961-11-5				6.5[4]
tetraethyl lead	78-00-2				0.001[4,8]
tetrahydrofuran	109-99-9				3 500[4]
tetryl	479-45-8				8[4]
thallium	7440-28-0	3			
thifensulfuron-methyl	79277-27-3				50[4]
thiobencarb	28249-77-6				40[4]
thiocyanate	302-04-5				200[8]
thiodiglycol	111-48-8				300[4]
thiofanox	39196-18-4				1[4]
thiophanate, methyl	23564-05-8				300[4]
thiophenol	108-98-5				4[4]
thiram	137-26-8				20[4]
tin	7440-31-5				2 500[4]
titanium	7440-32-6	1 000			
toluene	108-88-3	5[5], 2 000[6]			60[7,13]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
toxaphene (all isomers)	8001-35-2	0.08		5	0.15[4]
tralomethrin	66841-25-6				30[4]
triadimefon	43121-43-3				100[4]
triallate	2303-17-5	2.4		230	50[4]
triasulfuron	82097-50-5				40[4]
tribenuron-methyl	101200-48-0				30[4]
tribromobenzene, 1,2,4-	615-54-3				20[4]
tribufos	78-48-8				0.1[4]
tributyl phosphate	126-73-8				15[4]
tributyltin	36643-28-4	0.08[5], 0.05[6,8]		250	
trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1				100 000[4]
trichloroaniline, 2,4,6-	634-93-5				0.1[4]
trichlorobenzene, 1,2,3-	87-61-6	80			3[4]
trichlorobenzene, 1,2,4-	120-82-1	240[5], 54[6]			5.5[4]
trichloroethane, 1,1,1-	71-55-6				8 000[4]
trichloroethane, 1,1,2-	79-00-5				3[4]
trichloroethylene	79-01-06	200		50	5[7]
trichlorofluoromethane	75-69-4				1 000[4]
trichlorophenol, 2,3,4-	15950-66-0	2.5 – 320[26]		2[24,67]	
trichlorophenol, 2,3,5-	933-78-8	2.5 – 340[26]		2[24,67]	
trichlorophenol, 2,3,6-	933-75-5	8 – 1 080[26]		2[24,67]	
trichlorophenol, 2,4,5-	95-95-4	2.5 – 300[26]		2[24,67]	400[4]
trichlorophenol, 2,4,6-	88-06-02	6 – 800[26]		2[24,67]	5[7,13]
trichlorophenol, 3,4,5-	609-19-8	1 – 128[26]		2[24,67]	
trichlorophenoxy acetic acid, 2,4,5-[2,4,5-T]	93-76-5			20	40[4]
trichloropropane, 1,1,2-	598-77-6				20[4]
trichloropropane, 1,2,3-	96-18-4				0.5[4,8]

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
trichloropropene, 1,2,3-	96-19-5				10^{4}
tricresyl phosphate [TCP]	1330-78-5				80^{4}
tricyclohexyltin	NA[32]			250	
tridiphane	58138-08-2				10^{4}
triethylene glycol	112-27-6				$8\ 000^{4}$
triethyltin	NA[32]	4			
trifluralin	1582-09-8	2		45	45^{7}
trimethyl phosphate	512-56-1				8^{4}
trimethylbenzene, 1,3,5-	108-67-8				40^{4}
trinitrobenzene, 1,3,5-	99-35-4				100^{4}
trinitrotoluene, 2,4,6-	118-96-7				2^{4}
triphenyltin	668-34-8	0.2		800	
tris(1,3-dichloro-2-propyl)phosphate [TDCPP]	13674-87-8				80^{4}
tris(1-chloro-2-propyl)phosphate [TCPP]	13674-84-5				40^{4}
tris(2,3-dibromopropyl)phosphate	126-72-7				0.07^{4}
tris(2-chloroethyl)phosphate [TCEP]	115-96-8				8^{4}
tris(2-ethylhexyl)phosphate	78-42-2				50^{4}
tungsten	7440-33-7				3^{4}
uranium	7440-61-1	85	10	200	20^{7}
vanadium	7440-62-2		100	100	20^{4}
vernolate	1929-77-7				4^{4}
VHw6-10[68]	NA[32]	15 000	15 000	15 000	15 000
vinclozolin	50471-44-8				100^{4}
vinyl acetate	108-05-4				$4\ 000^{4}$
vinyl chloride	75-01-04				2^{7}
VPHw[69]	NA[32]	1 500			

SCHEDULE 3.2

GENERIC NUMERICAL WATER STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service # (CAS)	Aquatic Life[2] (AW)	Irrigation[2] (IW)	Livestock[2] (LW)	Drinking Water[3] (DW)
warfarin	81-81-2				1[4]
xylenes, total	1330-20-7	300			90[7]
zinc	7440-66-6	75 @ H < 90[5,21] 150 @ H = 90 - < 100[5,21] 900 @ H = 100 - < 200[5,21] 1 650 @ H = 200 - < 300[5,21] 2 400 @ H = 300 - < 400[5,21] 100[6]	1 000 @ pH < 6.0[70] 2 000 @ pH 6.0 - < 7.0[70] 5 000 @ pH ≥ 7.0[70]	2 000	3 000[12]
zineb	12122-67-7				200[4]

Notes

1 All values are in ug/L unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternate methods acceptable to a director.

2(a) Aquatic life standards assume minimum 1:10 dilution is available. Aquatic life standards are to protect freshwater and marine life unless otherwise indicated.

2(b) Standards for all organic substances are for total substance concentrations. Any water sample to be analyzed for organic substances should not be filtered.

2(c) Standards for surface water samples to be analyzed for heavy metals, metalloids and inorganic ions are total substance concentrations. In addition, it is recommended that surface water samples being analyzed for heavy metals, metalloids and inorganic ions should also be analyzed for dissolved substance concentrations.

2(d) Standards for groundwater samples for heavy metals, metalloids and inorganic ions are for dissolved substance concentrations. In addition, it is recommended that groundwater samples being analyzed for heavy metals, metalloids and inorganic ions should also be analyzed for total substance concentrations.

2(e) Standards for irrigation water apply to irrigation of all soil types, unless otherwise indicated.

3 Drinking water standards are for unfiltered samples obtained at the point of consumption. Heavy metals, metalloids and inorganic ions are expressed as total substance concentrations unless other wise indicated.

4 Standard is based on the 2015 United States (US) Environmental Protection Agency (EPA) "Regional Screening Levels" for tapwater. The EPA Regional Screening Levels for both non-carcinogenic and carcinogenic substances reflect the 1996 "Overview of CSST Procedures for the Derivation of Soil Quality Matrix Standards for Contaminated Sites" 20% (i.e., 0.2) Toxicity Reference Value (TRV) apportionment for drinking water exposure. For carcinogenic substances, the EPA Reginoal Screening Level is also adjusted to reflect section 18 (3) (a) of this regulation, with a human lifetime cancer risk of less than or equal to one in 100 000.

5 Standard to protect freshwater aquatic life.

6 Standard to protect marine and estuarine aquatic life.

7 Standard is set equal to the 2014 Health Canada "Guidelines for Canadian Drinking Water Quality" for the substance.

8 Standard is set equal to the 2016 British Columbia Environmental Laboratory Technical Advisory Committee reference analytical detection limit for the substance.

9 Standard to protect crops other than legumes.

10 Standard to protect legumes.

11 Standard is applicable to the sum of the concentration of aldrin and dieldrin.

12 Standard is specific to protection of human health. Standard is derived with TRV protective of adults. Standard may not adequately protect other age groups.

13 Standard may not address aesthetic (organoleptic) concerns releated to drinking water quality. Water treatment may be required.

14 Standard varies with pH and temperature. 10°C is assumed. Consult a director for further advice.

15 Standard varies with pH, temperature and salinity. 10 °C and 10 practical salinity units (psu) are assumed. Consult a director for further advice.

16 Standard is expressed in million fibres > 10µm/L (m.f./L). Standard is set equal to the 2010 US EPA *Safe Drinking Water Act*, National Primary Drinking Water Regualtions standard for the substance.

17 Standard varies depending on crop as follows:

Crop	Standards (µg/L)
blackberry	500
barley, cherry, cowpea, garlic, grape, Jerusalem artichoke, kidney bean, lima bean, mung bean, onion, peach, plum, sesame, strawberry, sunflower, sweet potato, wheat	1 000
carrot, cucumber, pea, potato, radish, red pepper	2 000
artichoke, bluegrass (Kentucky), cabbage, celery, clover, corn, lettuce, muskmelon, mustard, oat, squash, tobacco, turnip	4 000
alfalfa, asparagus, parsley, purple vetch, red beet, sorghum, sugar beet, tomato	6 000

18 Standard to protect crops other than cereals, tame hays and pasture.

19 Standard to protect cereals, tame hays and pasture crops.

20 Standard is specific for total trihalomethanes. Sum of the concentrations of bromodichloromethane (BDCM), dibromochloromethane (DBCM), bromoform (tribromomethane), and chloroform (trichloromethane) must not exceed the standard specified.

21 H mean water hardness in mg/L $CaCO_3$.

22 Standard derived by the British Columbia Ministry of Environment, Land Remediation Section in accordance with CSR 2016 Protocol 28, "Standards Derivation Methods".

23 Standard to protect all types of crops.

24 Standard to protect against taste and odour concerns.

25 Substance is extremely labile in water. Extended hold times are inappropriate. It is recoomemmended that samples be analyzed in the field or immediately upon receipt by the laboratory.

26 Standard varies with pH, temperature and substance isomer. Consult a director for further advice.

27 Standard is applicable to the sum of concentratins of all chlorophenol isomers.

28 Analytical results for chromium (all species) in water may be used to demonstrate compliance with the standards. Where the standards connot be met based on analytical results for chromium (all species), chromium speciation may be necessary.

29 To demonstrate compliance with the aquatic life (AW) standard, samples for cyanide in water must be analyzed using the appropriate "Cyanide Weak Acid Dissociable (WAD)" analytical method for water specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.

30 To demonstrate compliance with the drinking water (DW) standard, samples for cyanide in water must be analyzed using the appropriate "Cyanide Strong Acid Dissociable (SAD)" analytical method for water specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.

31 Standards are for the sum of DDT (2,4' + 4,4" isomers), DDD (2,4' + 4,4" isomers), and DDE(2,4' + 4,4" isomers).

32 NA – not applicable. No CAS number exists for the substance.

33 Standard is applicable to the sum of concentrations of all dichlorophenol isomers.
34 Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as item F2, F3, F7, or F10.
35 Standard to protect cereal crops and hay.
36 Standard to protect lactating dairy animals.
37 Standard is applicable at all sites, irrespective of water use.
38 EPHw10-19 – Extractable Petroleum Hydrocarbons (nC10-nC19) in water, as defined in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.
39 Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as itme H18 or H19.
40 Standard varies with type of livestock. Consult a director for further advice.
41 Standard is applicable to the sum of the concentrations of heptachlor and heptachlor epoxide.
42 Standard is applicable to the sum of the concentrations of all hexachlorocyclohexane isomers.
43 Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as
(a) item A6, A7, A8, or A11,
(b) item C1, C2, C3, C4, or C6,
(c) item D2, D3, D5 or D6,
(d) item E4, or
(e) item H14.
44 Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as item H11 or H20, but only if the site was used for that purpose or activity in conjunction with, or as a result of, the site also being used for at least one of the purposes or activities set out in Note 43.
45 LEPHw – Light Extractable Petroleum Hydrocarbons in water, as defined in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.
46 Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as
(a) item B1,
(b) item C1, C3 or C4,
(c) item D2, D3, D5 or D6,
(d) item E4, or
(e) item H3 or H14.
47 Standards apply to a site used for an industrial or commercial purpose or activity set out in Schedule 2 as item H11 or H20 but only if the site was used for that purpose or activity inconjunction with, or as a result of, the site also being used for at least one of the pruposes or activities set out in Note 46.
48 Standard varies with crop, soil drainage and Mo:Cu ratio. Consult a director for further advice.
49 Standard is set equal to 1986 British Columbia Ministry of Environment drinking water quality guideline for the substance.
50 Standard is specific for total haloacetic acids. Sum of the concentrations of monchloroacetic acid (MCA), dichloroacetic acid (DCA), trichloroacetic acid (TCA), monobromoacetic acid (MBA) and dibromoacetic acid (DBA) must not exceed the standard specified.
51 Standard may not protect all amphibians. Consult a director for further advice.
52 Where nitrate and nitrite are present, total nitrate plus nitrite-nitrogen should not exceed this value.
53 Standard varies with chloride concentration. Consult a director for further advice.
54 Water must be remediated so that nonaqueous phase liquids are not present in quantities in excess of that acceptable to a director.
55 Nonylphenol includes related nonylphenolic and octylphenolic compounds, including ethoxylates and ethoxycarboxylates. Consult a director for further advice.
56 Standards apply to a site used for an industrial or commercial purpose or activity set our in Schedule 2 as
(a) item A6, A8, A10 or A12,
(b) item H11, H18 or H19, or
(c) item I2 or I3.

57 Standards apply to a site used for an industrial or commercial purpose or activity set our in Schedule 2 as
(a) item A4,
(b) item C3,
(c) item E10, or
(d) item G1.

58 Standard is for salinity measurements by electrical conductivity or density methods using the Practical Salinity Scale, which closely equates to concentration units of parts per thousand (g/kg or g/L). Salinity measurements using the Practical Salinity Scale may be denoted as Practical Salinity Units (psu).

59 Standard applies only if minimum 1:10 dilution is available in receiving waterbody.

60 Freshwater is defined as water having a natural salinity < 1.5 psu.

61 Standard varies with natural salinity of receiving waterbody.

62 Standard for continuous applications on crops.

63 Standard for intermittent application on crops.

64 Standard is set equal to 2014 British Columbia Ministry of Environment drinking water quality guideline for the substance.

65 Standard is for un-ionized sulfide (as H_2S). Measurement of either total or dissolved sulfide (as H_2S) may be used to demonstrate compliance with the standards. Where the standards cannot be met by measuring total or dissolved sulfide (as H_2S), determination of un-ionized sulfide (as H_2S) may be necessary.

66 Standard is applicable to the sum of concentrations of all tetrachlorophenol isomers.

67 Standard is applicable to the sum of concentrations of all trichlorophenol isomers.

68 VHw6-10 – Volatile Hydrocarbons (nC6-nC10) in water, as defined in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.

69 VPHw – Volatile Petroleum Hydrocarbons in water, as defined in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time.

70 Standard varies with soil pH.

SCHEDULE 3.3

[en. B.C. Reg. 13/2019, s. 12.]

SCHEDULE 3.3
GENERIC NUMERICAL VAPOUR STANDARDS[1,2,3,4,5]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service Number (CAS)	Agricultural, Urban Park, Residential Use Standard[6]	Commercial Use Standard[7]	Industrial Use Standard[8]	Parkade Use Standard[9]
acetaldehyde	75-07-0	4.5	15	40	35
acetone	67-64-1	2 000	5 500	35 000	15 000
acetone cyanohydrin	75-86-5	2	6	20	15
acetonitrile	75-05-8	60	200	550	500
acrolein	107-02-8	0.2[10]	0.2[10]	0.2[10]	0.2[10]
acrylonitrile	107-13-1	0.5[10]	0.5[10]	1.5	1
allyl chloride	107-05-1	1	3	9	8
ammonia (as N)	7664-41-7	100	300	900	800
benzene	71-43-2	1.5	4	10	10
benzotrichloride	98-07-7	1[10]	1[10]	1[10]	1[10]
benzyl chloride	100-44-7	0.2	0.6	2	1.5
bis(2-chloro-1-methylethyl) ether	108-60-1	80	250	1 500	650
bis(2-chloroethyl) ether	111-44-4	1[10]	1[10]	1[10]	1[10]
bis(2-chloromethyl) ether	542-88-1	1[10]	1[10]	1[10]	1[10]
bromobenzene	108-86-1	60	200	550	500
bromodichloromethane [BDCM]	75-27-4	40	100	800	300
bromoform	75-25-2	9	30	85	75
bromomethane	74-83-9	5	15	45	40
butadiene, 1,3-	106-99-0	2[10]	2[10]	3	2.5
carbon disulfide	75-15-0	700	2 000	6 500	5 500
carbon tetrachloride	56-23-5	1.5	5	15	15
chlorine (Cl_2)	7782-50-5	20[10]	20[10]	20[10]	20[10]
chloro-1,1-difluoroethane, 1-	75-68-3	50 000	150 000	450 000	400 000
chlorobenzene	108-90-7	10	30	90	80
chlorobenzotrifluoride, 4-	98-56-6	15	40	100	100
chlorobutane, 1-	109-69-3	80	250	1 500	650
chlorodifluoromethane	75-45-6	50 000	150 000	450 000	400 000

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service Number (CAS)	Agricultural, Urban Park, Residential Use Standard[6]	Commercial Use Standard[7]	Industrial Use Standard[8]	Parkade Use Standard[9]
chloroethane	75-00-3	10 000	30 000	90 000	80 000
chloroform	67-66-3	100	300	900	800
chloromethane	74-87-3	90	250	800	700
chloronitobenzene, 4-	100-00-5	1[10]	2	5.5	5
chlorophenol, 2-	95-57-8	10	30	200	80
chloroprene	126-99-8	1[10]	1[10]	1[10]	1[10]
chloropropane, 2-	75-29-6	60	150	1 000	450
chlorotoluene, 2-	95-49-8	40	100	800	300
crotonaldehyde, trans-	123-73-9	2	6	40	15
cyanide	57-12-5	2[10]	3.5	25	9.5
cyanogen	460-19-5	10[10]	10[10]	40	15
cyanogen bromide	506-68-3	200	550	3 500	1 500
cyanogen chloride	506-77-4	100	300	2 000	800
dibromo-3-chloropropane, 1,2-	96-12-8	1[10]	1[10]	2	1.5
dibromobenzene, 1,4-	106-37-6	20	60	400	150
dibromochloromethane [DBCM]	124-48-1	40	100	800	300
dibromoethane, 1,2-	106-93-4	0.5[10]	0.5[10]	0.5[10]	0.5[10]
dibromomethane	74-95-3	4	10	35	30
dichloro-2-butene, 1,4-	764-41-0	1[10,11]	1[10,11]	1[10,11]	1[10,11]
dichlorobenzene, 1,2-	95-50-1	200	600	2 000	1 500
dichlorobenzene, 1,3-	541-73-1	60	200	1 000	500
dichlorobenzene, 1,4-	106-46-7	800	2 500	7 500	6 500
dichlorodifluoromethane	75-71-8	100	300	900	800
dichloroethane, 1,1-	75-34-3	500	1 500	4 500	4 000
dichloroethane, 1,2-	107-06-2	7	20	65	55
dichloroethylene, 1,1-	75-35-4	200	600	2 000	1 500
dichloroethylene, 1,2- cis	156-59-2	60	200	550	500
dichloroethylene, 1,2- trans	156-60-5	60	200	550	500
dichloromethane	75-09-2	600	2 000	5 500	5 000
dichloropropane, 1,2-	78-87-5	4	10	35	30

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service Number (CAS)	Agricultural, Urban Park, Residential Use Standard[6]	Commercial Use Standard[7]	Industrial Use Standard[8]	Parkade Use Standard[9]
dichloropropane, 1,3-	142-28-9	1	3	20	8
dichloropropene, 1,3- (cis + trans)	542-75-6	2.5	7.5	25	20
dicyclopentadiene	77-73-6	1^{10}	1^{10}	2.5	2.5
diethyl ether	60-29-7	400	1 000	8 000	3 000
dimethylamine	124-40-3	1^{10}	1^{10}	1^{10}	1^{10}
dimethylaniline, N,N- [DMA]	121-69-7	4	10	80	30
epichlorohydrin	106-89-8	1	3	9	8
epoxybutane, 1,2-	106-88-7	20	60	200	150
ethyl acetate	141-78-6	70	200	650	550
ethyl acrylate	140-88-5	8	25	75	65
ethyl methacrylate	97-63-2	300	900	2 500	2 500
ethylbenzene	100-41-4	1 000	3 000	9 000	8 000
ethylene oxide	75-21-8	10^{10}	10^{10}	10^{10}	10^{10}
furan	110-00-9	2	6	40	15
hexachlorobutadiene	87-68-3	1^{10}	1.5	4	3.5
hexachlorocyclopentadiene	77-47-4	1^{10}	1^{10}	2	1.5
hexachloroethane	67-72-1	30	90	250	250
isopropylbenzene	98-82-8	400	1 000	3 500	3 000
methacrylonitrile	126-98-7	30	90	250	250
methyl acetate	79-20-9	2 000	6 000	40 000	15 000
methyl acrylate	96-33-3	20	60	200	150
methyl ethyl ketone [MEK]	78-93-3	5 000	15 000	45 000	40 000
methyl isobutyl ketone [MIBK]	108-10-1	3 000	9 000	25 000	25 000
methyl mercaptan	74-93-1	2^{10}	3.5	20	9
methyl methacrylate	80-62-6	700	2 000	6 500	5 500
methyl tert-butyl ether [MTBE]	1634-04-4	3 000	9 000	25 000	25 000
methylcyclohexane	108-87-2	1 500	5 000	35 000	15 000
methylstyrene, alpha-	98-83-9	150	400	2 500	1 000
naphthalene	91-20-3	3	9	25	25
n-decane	124-18-5	2 500	8 000	25 000	20 000

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service Number (CAS)	Agricultural, Urban Park, Residential Use Standard[6]	Commercial Use Standard[7]	Industrial Use Standard[8]	Parkade Use Standard[9]
n-hexane	110-54-3	700	2 000	6 500	5 500
nitrobenzene	98-95-3	1[10]	1[10]	2.5	2
nitrotoluene, 2-	88-72-2	2	5.5	35	15
phosphine	7803-51-2	10[10]	10[10]	10[10]	10[10]
propylene oxide	75-56-9	2.5	8	25	20
pyridine	110-86-1	100	350	1 000	950
styrene	100-42-5	1 000	3 000	9 000	8 000
tetrachloroethane, 1,1,1,2-	630-20-6	1.5	4	10	10
tetrachloroethane, 1,1,2,2-	79-34-5	40	100	800	300
tetrachloroethylene	127-18-4	40	100	350	300
tetrahydrofuran	109-99-9	3.5	10	30	25
toluene	108-88-3	5 000	15 000	45 000	40 000
trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	30 000	90 000	250 000	250 000
trichlorobenzene, 1,2,4-	120-82-1	7	20	65	55
trichloroethane, 1,1,1-	71-55-6	5 000	15 000	45 000	40 000
trichloroethane, 1,1,2-	79-00-5	0.5[10]	0.6	2	1.5
trichloroethylene	79-01-06	2	6	20	15
trichlorofluoromethane	75-69-4	700	2 000	6 500	5 500
trichloropropane, 1,1,2-	598-77-6	10	30	200	80
trichloropropane, 1,2,3-	96-18-4	0.5[10]	0.9	2.5	2.5
trichloropropene, 1,2,3-	96-19-5	0.5[10]	0.9	2.5	2.5
triethylamine	121-44-8	7	20	65	55
trimethylbenzene, 1,2,4-	95-63-6	7	20	65	55
trimethylbenzene, 1,3,5-	108-67-8	3.5	10	65	25
vinyl acetate	108-05-4	200	600	2 000	1 500
vinyl bromide	593-60-2	1[10]	1[10]	3	2.5
vinyl chloride	75-01-4	1	3.5	10	9
VPHv[12]	NA[13]	1 000	3 000	11 500	8 000
xylenes, total[14]	1330-20-7	100	300	900	800

Notes

1 All values in ug/m^3 unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternative methods acceptable to a director.

2 Vapour standards of this schedule are specific to human health only. It is the responsibility of the responsible person for the site to ensure that use of the vapour standards of this schedule do not constitute a significant risk or hazard to ecological health.

3 Soil, sediment or water giving rise to vapours must be remediated to the applicable vapour use standard for the substance.

4 Vapour standards applied to soil vapour may be adjusted for depth dependent attenuation as specified in a director's protocol.

5 Vapour standards apply to water at any site, irrespective of the water or site use, which gives rise to contaminated vapours.

6 Vapour standards agricultural, urban park and residential uses apply to soil at agricultural land use, urban park land use and residential land use sites, as well as freshwater or marine sediment at sensitive sediment sites, that give rise to contaminated vapours. Residential use vapour standards apply at both residential low density land use and residential high density land use sites, that give rise to contaminated vapours.

7 Vapour standards for commercial use apply to soil vapour at commercial land use sites that give risk to contaminated vapours.

8 Vapour standards for industrial use apply to soil vapour at industrial land use sites and to freshwater or marine sediment at typical sediment sites, that give rise to contaminated vapours.

9 Vapour standards for parkade use apply to soil vapour adjacent to parkades, irrespective of the site use that gives rise to contaminated vapours.

10 Standard is adjusted based on the 2016 British Columbia Environmental Laboratory Technical Advisory Committee reference analytical detection limit for the substance.

11 Standard for the substance applies to the sum of cis and trans isomers vapour concentrations.

12 VPHv – Volatile Petroleum Hydrocarbons in vapour includes the sum of those compounds that elute on a 100% polydimethylsiloxane gas chromatographic column between the retention times for n-hexane (nC6) and n-tridecane (nC13) minus the sum of benzene, ethylbenzene, n-decane, n-hexane, styrene, toluene and xylenes.

13 NA – not applicable. No CAS number exists for the substance.

14 Standard for the substance applies to the sum of ortho, meta and para isomers vapour concentrations.

SCHEDULE 3.4

[en. B.C. Reg. 13/2019, s. 12.]

SCHEDULE 3.4
GENERIC NUMERICAL SEDIMENT STANDARDS[1]

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service Number (CAS)	Freshwater Sediment[2] Standard for Sensitive Use[4]	Freshwater Sediment[2] Standard for Typical Use[5]	Marine and Estuarine Sediment[3] Standard for Sensitive Use[4]	Marine and Estuarine Sediment[3] Standard for Typical Use[5]
acenaphthene	83-32-9	0.055	0.11	0.055	0.11
acenaphthylene	208-96-6	0.08	0.15	0.079	0.15
anthracene	120-12-7	0.15	0.29	0.15	0.29
arsenic	7440-38-2	11.0	20.0	26.0	50.0[6]
benz(a)anthracene	56-55-3	0.24	0.46	0.43	0.83
benzo(a)pyrene	50-32-8	0.48	0.94	0.47	0.92
cadmium	7440-43-9	2.2	4.2	2.6	5.0
chlordane (cis + trans)	5103-71-9 & 5103-74-2	0.0055	0.011	0.003	0.0057
chromium	7440-47-3	56.0[6]	110.0	99.0	190.0
chrysene	218-09-8	0.53	1.0	0.52	1.0
copper	7440-50-8	120.0	240.0	67.0	130.0
dibenz(a,h)anthracene	53-70-3	0.084	0.16	0.084	0.16
dichlorodiphenyldichloroethane (2,4' + 4,4' isomers) [DDD]	53-19-0 & 72-54-8	0.0053	0.01	0.0048	0.0094
dichlorodiphenyldichloroethylene (2,4' + 4,4' isomers) [DDE]	3424-82-6 & 72-55-9	0.0042	0.0081	0.23	0.45
dichlorodiphenyltrichloroethane (2,4' + 4,4' isomers) [DDT]	789-02-6 & 50-29-3	0.003	0.0057	0.003	0.0057
dieldrin	60-57-1	0.0041	0.008	0.0027	0.0052
endrin	72-20-8	0.039	0.075[6]	0.039	0.075[6]
fluoranthene	206-44-0	1.5	2.8	0.93	1.8
fluorene	86-73-7	0.089	0.17	0.089	0.17
heptachlor and heptachlor epoxide	76-44-8 & 1024-57-3	0.0017	0.0033[6]	0.0017	0.0033[6]
hexachlorocyclohexane, gamma	58-89-9	0.00086[6]	0.0017[6]	0.00061	0.0012[6]
lead	7439-92-1	57.0	110.0	69.0	130.0
methylnaphthalene, 2-	91-57-6	0.12	0.24	0.12	0.24

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	**Chemical Abstract Service Number (CAS)**	**Freshwater Sediment[2] Standard for Sensitive Use[4]**	**Freshwater Sediment[2] Standard for Typical Use [5]**	**Marine and Estuarine Sediment[3] Standard for Sensitive Use[4]**	**Marine and Estuarine Sediment[3] Standard for Typical Use [5]**
mercury	7439-97-6	0.3	0.58	0.43	0.84
naphthalene	91-20-3	0.24	0.47	0.24	0.47
pentachlorophenol [PCP]	87-86-5	0.4[7]	0.8[7]	0.36[8]	0.69[8]
phenanthrene	85-01-8	0.32	0.62	0.34	0.65
polycyclic aromatic hydrocarbons, total[9] [PAHs]	NA[10]	10.0	20.0	10.0	20.0
polychlorinated biphenyls, total[11] [PCBs]	1336-36-3	0.17	0.33	0.12	0.23
polychlorinated dioxins and furans[12] [PCDDs and PCDFs]	1746-01-6	0.00013[6]	0.00026[6]	0.00013	0.00026[6]
pyrene	129-00-0	0.54	1.1	0.87	1.7
zinc	7440-66-6	200.0	380.0	170.0	330.0

Notes

1. All values in ug/g dry weight (dwt) unless otherwise stated. Substance must be analysed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternative methods acceptable to a director.
2. Standards are specific to the protection of freshwater life. It is the responsibility of the responsible person for the site to ensure that use of the standards of this schedule does not constitute a significant risk or hazard to human health.
3. Standards are specific to the protection of marine and estuarine aquatic life. It is the responsibility of the responsible person for the site to ensure that the use of the standards of this schedule does not constitute a significant risk or hazard to human health.
4. Sensitive sediment use means the use of a site containing sediment as habitat for sensitive components of freshwater, marine or estuarine aquatic ecosystems. Consult a director for further advice.
5. Typical sediment use means the use of a site containing sediment for a use that is not a sensitive sediment use. Consult a director for further advice.
6. Denotes a sediment standard which is considered less reliable or that could not be fully evaluated.
7. Standard has been set equal to the 1994 State of New York, Department of Environmental Conservation criterion for the substance.
8. Standard has been set equal to the 1991 Washington State, Department of Ecology criterion for the substance.
9. PAHs, total in sediment includes:
   acenaphthene,
   acenaphthylene,
   anthracene,

benz(a)anthracene,
benzo(a)pyrene,
chrysene,
dibenz(a,h)anthracene,
fluoranthene,
fluorene,
methylnaphthalene, 2-
naphthalene,
phenanthrene, and
pyrene.

10. NA – not applicable. No CAS number exists for the substance.
11. PCBs, total in sediment includes the sum of Arochlors 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262 and 1268.
12. Calculated using data for PCDDs, PCDFs, PCBs and associated PCDD, PCDF, PCB toxicity equivalency factors. Consult a director for further advice.

SCHEDULES 4 TO 7

Repealed. [B.C. Reg. 253/2016, s. 18.]

SCHEDULE 8

[am. B.C. Reg. 201/2007, s. 7.]

APPLICATION FOR A CONTAMINATED SOIL RELOCATION AGREEMENT

Notes / Instructions

One (1) application may be completed for a single source site requiring many soil relocations to a single receiving site, provided that both sites are adequately identified and the relocated soils are accurately described.

Anything submitted in relation to this Contaminated Soil Relocation Agreement application will become part of the public record and may be made available to the public through the Site Registry as established under the *Waste Management Act*.

PART I

To be completed by or for the owner of the source site from which contaminated soil is to be relocated.

SECTION A: Source Site Information

1. Name of source site owner:

Last ..... First ..... Middle Initial(s) ..... (and / or, if applicable)

Company .....

2. Name of source site contact person:

Last ..... First ..... Middle Initial(s) ..... (and / or, if applicable)

Company .....

Mailing Address .....

City ..... Province / State .....

Country ..... Postal Code / ZIP .....

Telephone (.....) .....-..... Fax (.....) .....-.....

SOURCE SITE IDENTIFICATION

Site Identification Number (if available) .....

If Legally Titled, Registered Property

Site Street Address

.....

City ..... Postal Code .....

PID numbers and associated legal descriptions. *Attach an additional sheet if necessary.*

PID	Legal Description
.....	.....
.....	.....
.....	.....

If Untitled Crown Land

1. PIN numbers and associated Land Description (if applicable). *Attach an additional sheet if necessary*

PIN	Land Description
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

OR

1. Coordinates (using the North American Datum 1983 convention) for the centre of the site:

   Latitude: Degrees ..... Minutes ..... Seconds .....

   Longitude: Degrees ..... Minutes ..... Seconds .....

   Please attach a map of appropriate scale showing the boundaries of the site.

   (and, if available)

   Crown land file numbers. *Attach an additional sheet if necessary.*

....

SECTION B: Contaminated Soil Information

1. Soil characterization. *Attach an additional sheet if necessary*.

   - Soil volumes to be relocated in cubic metres (m^3).
   - Soil test results summary. *Include contaminant concentrations and supporting information.*

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2. Soil characterization method. *Attach an additional sheet if necessary*.

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3. Current type of soil storage (e.g. stockpiled, in situ) .....
4. Soil relocation start date (YY-MM-DD) .....
5. Estimated completion date (YY-MM-DD) .....
6. Relocation method (e.g. truck, barge, train) .....
7. Number of loads .....

PART II

To be completed by or for the owner or operator of the receiving site to which contaminated soil is to be relocated.

SECTION A: Receiving Site Information

1. Name of receiving site owner / operator:

Last ..... First ..... Middle Initial(s) ..... (and / or, if applicable)
Company .....

2. Name of receiving site contact person:

Last ..... First ..... Middle Initial(s) ..... (and / or, if applicable)
Company .....
Mailing Address .....
City ..... Province / State .....
Country ..... Postal Code / ZIP .....
Telephone (.....) .....-..... .Fax (.....) .....-.....

RECEIVING SITE IDENTIFICATION

Site Identification Number (if available) .....

If Legally Titled, Registered Property

Site Street Address
.....
City ..... Postal Code .....

PID numbers and associated legal descriptions. *Attach an additional sheet if necessary.*

PID	**Legal Description**
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

If Untitled Crown Land

1. PIN numbers and associated Land Description (if applicable). *Attach an additional sheet if necessary*

PIN	**Land Description**
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

OR

2. Coordinates (using the North American Datum 1983 convention) for the centre of the site:

   Latitude: Degrees ..... Minutes ..... Seconds .....

   Longitude: Degrees ..... Minutes ..... Seconds .....

   Please attach a map of appropriate scale showing the boundaries of the site.

   (and, if available)

   Crown land file numbers. *Attach an additional sheet if necessary.*

....

3. Receiving site primary land use. Write in one of commercial, industrial, residential, agricultural or urban park. If none apply, specify the current and anticipated land use.

.....

4. Relocated soil use at the receiving site (e.g. fill, cover) .....

PART III

Contaminated Soil Relocation Agreement: *To be completed and signed by all parties.*

1. The above information accurately reflects the volume and quality of the soil to be relocated. I know of no regulation, bylaw or other legal restriction which might prohibit the relocation of the soil, as described in Part I, Section B, to the indicated receiving site. Further, I will ensure that all permits, manifests and other regulatory and safety requirements that may apply are met.

   Signature of Source site owner .....
   Print name .....
   Date (YY-MM-DD) .....

2. I am prepared to receive the soil as described in Part I, Section B on the indicated site described in Part II, Section A. I know of no regulation, bylaw or other legal restriction which might prohibit the relocation of this soil to this site. The answers provided in Part II are accurate to the best of my knowledge.

   Signature of Receiving site owner/operator .....
   Print name .....
   Date (YY-MM-DD) .....

3. Signature of Director .....
   Print name .....
   Date (YY-MM-DD) .....

SCHEDULES 9 TO 11

Repealed. [B.C. Reg. 253/2016, s. 18.]