

## REQUIREMENTS FOR THE REUSE AND DISPOSAL OF CONTAMINATED SOIL IN THE ACT

This Information Sheet outlines the Environment Protection Authority's requirements for the classification of known and potentially contaminated soil for reuse and disposal in the ACT. For the purposes of clarification, material being assessed under the provisions of this Information Sheet must not be defined as a 'liquid waste' in accordance with the [ACT's Environmental Standards: Assessment and Classification of Liquid and Non-liquid Wastes 2021](#).

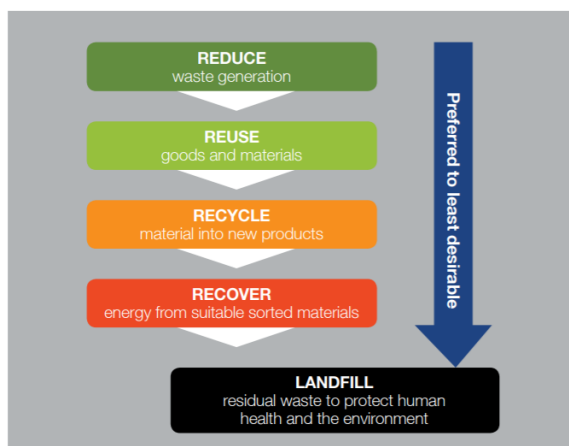
### Background

The key objective of this information sheet is to ensure that the environment and human health are protected during the management and disposal of contaminated soil.

This information sheet also supports the objects of the [Environment Protection Act 1997](#) and the core waste management targets of the [ACT Waste Management Strategy 2011–2025](#).

The Environment Protection Authority (EPA) encourages effective waste management by promoting onsite reuse, where appropriate, as the preferred option for dealing with contaminated soil. In accordance with the ACT Waste Management Strategy there is an established hierarchy for waste management.

The hierarchy for waste management is:



The Office of the EPA will assess reuse options and disposal of contaminated soil on a case-by-case basis.

### Assessment Requirements

The procedures for assessing contaminated soil for reuse or disposal are as follows:

#### Waste Classification for Disposal

For the purposes of waste classification potentially contaminated soil must be excavated and stockpiled prior to assessment. **In-situ sampling will not generally be supported for waste classification purposes.** If in-situ

sampling is proposed written agreement from the Office of the EPA **must** be obtained **prior** to the commencement of sampling.

At least one sample per 25 cubic metres (two samples per stockpile if stockpiles are less than 25 cubic metres) must be collected and analysed for waste classification purposes.

3-dimensional systematic samplings must be applied to account for any spatial variability of impacts within the stockpile and must be clearly demonstrated in the waste classification report.

### Reuse

For off-site reuse assessments sampling must be undertaken in general accordance with the 'Sampling Guidelines' section of the EPA Victoria guidance titled [Industrial Waste Resource Guidelines IWRG 702 - Soil Sampling](#) dated June 2009. Where it cannot be clearly demonstrated that material is homogeneous sampling must be undertaken at minimum rate of one sample per 25 cubic metres.

In all cases the number of samples to be taken is to be based on the anticipated **bulk volume** of material. Appropriate justification for the number of samples taken must be included in the reuse assessment report.

### Sampling and Analysis

**All samples collected must be analysed for total concentration of contaminants of concern** and, if relevant:

- leachable concentration of contaminants using Toxicity Characteristics Leaching Procedure (TCLP) for waste classification purposes.
- leachable concentration using the Australian Standard Leaching Procedure (ASLP) where a sensitive receiving environment is adjacent to a proposed reuse site. The leachate criteria must be chosen so as to be protective of groundwater quality and aquatic ecosystems both at the receiving site and the adjacent sensitive receiving environment. If in doubt, please contact the Office of the EPA on 13 22 81.

The sampling and analysis must be conducted in accordance with a method approved under Section 65 of

the [Environment Protection Regulation 2005](#).

All sampling and the assessment of results must be performed by a suitably qualified environmental consultant specialising in contaminated sites assessment (see ACT EPA [Contaminated Sites Environment Protection Policy 2017](#)).

Analysis must be performed by a person employed as an analyst in any of the following organisations:

- a laboratory operated by or on behalf of the ACT, the Commonwealth, or another State or Territory,
- an Australian University, or
- a laboratory accredited by the National Association of Testing Authorities.

### **Assessment Report**

For reuse and waste disposal applications the results of the sampling and analysis must be provided to the EPA in the form of a brief report.

The report must contain, as a minimum, the following information:

- a brief site history including reference to and comment on previous investigations of the site and any management requirements,
- the source and type of known or potential contamination,
- the sampling methods used, including a sketch/figure showing the 3-dimensional distribution of samplings undertaken,
- justification for the number of samples taken and the analytes chosen,
- appropriate quality assurance/quality control,
- for waste disposal applications an assessment against the ACT's [Environmental Standards: Assessment and Classification of Liquid and Non-liquids Wastes July 2021](#) and a clear statement as to the classification of the waste and proposed disposal location in the ACT,
- For waste disposal applications to the [Mugga 2 Quarry](#) facility located at Block 2252 Jerrabomberra an assessment must be made against the criteria referenced in the site's Environmental Authorisation. Contact the facility for details,
- for per- and poly-fluoroalkyl substances (PFAS) impacted soil an assessment in accordance with the [PFAS National Environmental Management Plan Version 2.0 – January 2020](#) (as updated from time to time). Sampling must include total and leachable concentrations. **As PFAS do not occur naturally in the environment, applications for off-site reuse will only be supported in exceptional circumstances based on a detailed risk assessment of the source and reuse sites.** Contact the Office of the EPA on 13 22 81 for further information on current disposal options in the ACT,
- a summary table of test results,
- the original laboratory results, chain of custody

forms etc.,

- a copy of the EPA's written acceptance of the change in sampling rate and/or methodology for waste classification assessments, where appropriate,
- for all off-site reuse requests a letter of acceptance from the land custodian of the proposed reuse site,
- For reuse applications an assessment against the relevant criteria in **Table 1** of this Information Sheet and a clear statement that the material is suitable for reuse at the nominated reuse site. Aesthetic impacts, for example anthropogenic impacts, odour and staining, must also be considered in all reuse applications, and
- Details of the soil assessment procedures used and full details of the intended reuse location for the soil must be included in the reuse report.
- Where in-situ assessment of material is approved by the EPA for reuse purposes, test pit logs or borehole logs of investigation locations must be included in the report.

**NOTE:** The reuse of soil assessed under this Information Sheet will only be considered for reuse off-site at **industrial land use sites or for the purposes of gazetted road construction or similar uses.**

### **Applications and Approvals**

All applications and reports must be submitted in accordance with [ACT EPA Information sheet 11 - EPA Report Submission Requirements](#).

The applications will be assessed, and you will be advised of the Office of the EPA's decision within 10 working days.

**NOTE:** Waste disposal and reuse reports **must** be submitted separately.

**No material is to be removed off-site for reuse or disposal without the Office of the EPA's approval.**

**NOTE:** This advice only relates to reuse and placement in the ACT. Where the material is proposed for reuse or placement in NSW the material must be classified in accordance with [NSW EPA Waste Classification Guidance](#). Approval from the appropriate NSW regulatory authorities including the local council (if required) must be sought and granted prior to the movement of the material from the ACT to NSW.

### **References**

Additional references to consider when assessing contaminated soil in the ACT include: [Assessment of Site Contamination National Environment Protection Measure 1999 \(as updated 2013\)](#).

### **For more information**

Contact the Office of the EPA by calling Access Canberra on 13 22 81 or go to [www.accesscanberra.act.gov.au](http://www.accesscanberra.act.gov.au) for more information relating to contaminated land management in the ACT.

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**Table 1 –Reuse Criteria**

Contaminant	Maximum total concentration (mg/kg) dry weight
Arsenic	20
Barium	300
Beryllium	2
Cadmium	3
Chromium (total)	100 <sup>1</sup>
Chromium (VI)	1
Cobalt	100
Copper	100
Lead	100
Manganese	500
Mercury (total)	1
Molybdenum	10
Nickel	60
Selenium	10
Silver	10
Tin (total)	50
Zinc	200
Tributyltin (reported as Sn)	0.005
Other pesticides <sup>2</sup>	0.02
DDT + DDD + DDE	0.5
C <sub>6</sub> to C <sub>9</sub> petroleum hydrocarbons	65
C <sub>10</sub> to C <sub>36</sub> petroleum hydrocarbons	1000
Benzene	1
Toluene	1
Ethylbenzene	3
Xylene (total)	14
Naphthalene	3
Benzo(a)pyrene	0.2
Polycyclic aromatic hydrocarbons (total)	20
Polychlorinated biphenyls (PCB)	2
Phenols	25
Cyanide (total)	32
Fluoride	300

<sup>1</sup>Where the Chromium (VI) contribution is less than 1mg/kg.

<sup>2</sup>Other pesticides mean Aldrin, Dieldrin, Chlordane, Heptachlor, Hexachlorobenzene (HCB), Lindane, and Benzene Hexachloride (BHC)

## NOTES:

The EPA will consider each application for reuse on a case-by-case basis and in the context of the nature of the contaminants within the soil and the receiving environment which may warrant more stringent criteria to those detailed in Table 1.

The reuse criteria in Table 1 cannot be used for the purposes of reclassification of excavated material as Virgin Excavated Natural Material and are not intended to be considered representative of background levels in the ACT.

Further Information | Phone: Access Canberra on 13 22 81 | Email: [contaminatedsites@act.gov.au](mailto:contaminatedsites@act.gov.au) | Web: [www.accesscanberra.act.gov.au](http://www.accesscanberra.act.gov.au)

Note: This guidance material has been prepared using the best information available to Access Canberra. Any information about legislative obligations or responsibilities included in this Information Sheet is only applicable to the circumstances described in the Information Sheet. You should always check the legislation referred to and make your own judgement about what action you may need to take to ensure you have complied with the legislation. Accordingly, Access Canberra extends no warranties as to the suitability of the information for your specific situation.