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| Guidelines for conducting environmental audits |



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Environment Protection Authority Victoria

GPO BOX 4395 Melbourne VIC 3001

1300 372 84

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# Purpose of this guideline

## Introduction

This guideline has been prepared under section 203 of the *Environment Protection Act 2017* (‘the EP Act 2017’) to assist environmental auditors appointed under Division 1 of Part 8.3 of the EP Act 2017 (‘environmental auditors’) in conducting environmental audits (‘audits’) in accordance with Division 3 of Part 8.3 of the EP Act 2017.

Section 208 of the EP Act 2017 outlines the purpose of an environmental audit which is:

* to assess the nature and extent of the risk of harm to human health or the environment from contaminated land, waste, pollution or any activity; and
* to recommend measures to manage the risk of harm to human health or the environment from contaminated land, waste, pollution or any activity; and
* to make recommendations to manage the contaminated land, waste, pollution or activity.

Land is defined in section 6 of the EP Act 2017 and means any land, whether publicly or privately owned, and includes any buildings or other structures permanently affixed to the land, and groundwater. This means that when the environmental auditor is considering contamination of land, they also must consider groundwater[[1]](#footnote-1).

Audits completed under the EP Act 2017 have a scope, which allows flexibility in the complexity of the audit and the degree of assessment undertaken. This means that the audit can be complex and encompass an assessment of the risk of harm to human health or the environment from contaminated land, waste, pollution, or any activity for all elements of the environment or be a focused assessment of the risk of harm from a small component of an activity. Broadly, an audit can be classified in three sub-sets:

* suitability of land use; or
* risk of harm from an activity; or
* risk of harm from contaminated land, waste, or pollution.

Some examples of audits include (but are not limited to) an assessment of:

* suitability of land use;
* the risk of harm to human health or the environment from contaminated land (as defined in section 35 of the EP Act 2017);
* the risk to air quality from a petrochemical complex;
* the risk to surface waters and groundwater from a wastewater treatment plant;
* whether a landfill cell liner has been constructed in accordance with appropriate construction requirements, thereby minimising risks to land and groundwater;
* whether a landfill is complying with licence conditions in relation to protection of groundwater; and
* risks to catchment conditions from one or several activities.

This guideline may be replaced, amended, or updated periodically. EPA may also provide site-specific guidance as it deems necessary. This may extend, clarify, or vary guidance provided in this guideline.

The most recent version of this guideline is available on the EPA website ([www.epa.vic.gov.au](http://www.epa.vic.gov.au)).

EPA will notify environmental auditors of any updates.

## Legal status

It is a requirement under section 190(2) of the EP Act 2017 that an environmental auditor have regard to this guideline and any other guidelines issued by the Authority under section 203 of the EP Act 2017, any relevant Environment Reference Standard (ERS), any relevant compliance code, and any prescribed matter, when carrying out any function of an environmental auditor under the EP Act 2017 or any other legislation.

Failure to have regard to these guidelines may be considered by EPA in determining whether to reappoint a person as an environmental auditor. Refer to the [Environmental auditor guidelines for appointment and conduct (publication 865)](https://www.epa.vic.gov.au/about-epa/publications/865-12) for further information.

## Intended audience

This guideline has been prepared by EPA for environmental auditors. It may also be useful for other parties involved in the environmental audit process, such as:

* planning or responsible authorities and other statutory authorities;
* consultants undertaking site investigations and preparing site investigation reports for use in an audit;
* those in management or control of a site who want to engage an environmental auditor to conduct an audit (e.g., for due diligence purposes);
* recipients of a notice, direction or other instrument issued pursuant to the EP Act 2017 (requiring the recipient to engage an environmental auditor to undertake an audit);
* parties involved in the management of a licensed landfill including works involving landfill operation, cell liner or capping construction, or closure and rehabilitation of a former landfill site;
* builders, architects, project managers and building surveyors involved in site development and construction, and building completion and occupation; and
* conveyancing companies who may provide advice to any person who proposes to become the person in management or control of a site, which could include a prospective purchaser.

# Definitions and related documents

## Definitions

Unless otherwise indicated, an expression or phrase that is used in this guideline has the same meaning as in the EP Act 2017 (whether or not a particular meaning is assigned to it in the EP Act 2017).

Refer to section 3 of the EP Act 2017 for a full list of definitions. For this document please note:

**‘activity’** as defined in the EP Act 2017 to include the storage or possession of waste or any other substance or thing; or anything prescribed to be an activity. ‘Activity’ is therefore an inclusive definition and can be interpreted broadly to include the activities of the manufacturing industry, service industry, primary industry (e.g., agriculture) and resource management (e.g., water resources).

**‘background level’** in relation to the land environment, means the level or range of levels of an indicator (measured in geologically similar land containing a measurable level of that indicator), outside the influence of any waste or contaminant (cl.4 of the ERS).

**‘background level of waste or substance’** has the meaning given in section 36 of the EP Act 2017.

**‘background water quality level’** means the level or range of levels of an indicator in waters or in aquatic ecosystems, outside the influence of any waste or contaminant containing a measurable level of that indicator (cl.4 of the ERS).

‘**conceptual site model (CSM)**’ is a description of a site including the environmental setting, geological, hydrogeological and soil characteristics together with the nature and distribution of contaminants. Potentially exposed populations and exposure pathways are identified. Presentation is usually graphical or tabular with accompanying explanatory text (as defined in the NEPM).

**‘contaminated land’** has the meaning given in section 35 of the EP Act 2017.

**‘clean up’** has the meaning given in section 3 of the EP Act 2017.

‘**ecological investigation level (EIL)**’ is the concentration of a contaminant above which further appropriate investigation and evaluation of the impact on ecological values will be required. The EILs are calculated using EC30 or lowest observed effect concentrations (LOEC) toxicity data. EILs are the sum of the added contaminant limit (ACL) and the ambient background concentration (ABC), and the limit is expressed in terms of total concentration. All EILs whether generic, soil-specific or site-specific, only apply to soil to a depth of two metres below the current soil surface (as defined in the NEPM).

**'ecological risk assessment (ERA)**’ is a set of formal, scientific methods for defining and estimating the probabilities and magnitudes of adverse impacts on plants, animals and/or the ecology of a specified area posed by a particular stressor(s) and the frequency of exposure to the stressor(s). Stressors include chemicals, changes in physiochemical properties such as temperature, other human actions and natural catastrophes (as defined in the NEPM).

**‘element of the environment’** refers to ambient air, ambient sound, land, and water (both groundwater and surface water) (ERS).

**‘environmental audit’** refers to an environmental audit undertaken in accordance with section 208 of the EP Act 2017.

**‘environmental audit report’** means the report that an environmental auditor must prepare under section 212 of the EP Act 2017 to accompany an environmental audit statement.

**‘environmental audit statement’** means an environmental audit statement prepared by an environmental auditor under section 210 of the EP Act 2017 referred to in the publication as ‘environmental audit statement’ (section 3 of the EP Act 2017).

**‘environmental auditor’** refers to a person appointed as an environmental auditor under Division 1 of Part 8.3 of the EP Act 2017.

**‘environmental value’** means a use, an attribute or a function of the environment’ (s.3 of the EP Act 2017).

**‘groundwater’** means any water contained in or occurring in a geological structure or formation or an artificial landfill below the surface of land (s. 3 of the EP Act 2017).

**‘harm’** in relation to human health or the environment, means an adverse effect on human health or the environment (of whatever degree or duration) and includes-

1. an adverse effect on the amenity of a place or premises that unreasonably interferes with or is likely to unreasonably interfere with enjoyment of the place or premises; or
2. a change to the condition of the environment so as to make it offensive to the senses of human beings; or
3. anything prescribed to be harm for the purposes of this Act or the Regulations (s.4 of the EP Act 2017).

**‘health investigation level (HIL)** means the concentration of a contaminant above which further appropriate investigation and evaluation will be required to ensure the protection of human health (as defined in the NEPM).

‘**health risk assessment (HRA)**’ is the process of estimating the potential impact of a chemical, biological or physical agent on a specified human population system under a specific set of conditions (as defined in the NEPM).

**‘health screening levels (HSLs)’** for petroleum hydrocarbons are the concentrations above which further appropriate investigation and evaluation will be required. HSLs depend on physiochemical properties of soil, as these affect hydrocarbon vapour movement in soil, and the characteristics of buildings and structures. HSLs apply to different soil types, land uses and depths below surface to >4 m and have a range of limitations (as defined in the NEPM).

**‘indicator’** means a parameter or marker that can be measured and used to do one or more of the following-

1. provide insight into the state of the environment or human health;
2. assess and report on whether an environmental value is being achieved or maintained;
3. identify and assess risks to the environmental values from pollution and waste (cl.4 of the ERS).

**‘land’** is defined in the EP Act 2017 to mean any land, whether publicly or privately owned and includes any buildings or other structures permanently affixed to the land, and groundwater.

**‘land environment’** includes-

1. soil, fill, rock, weathered rock, and sand;
2. the vapour and liquids within interstitial space, in the unsaturated zone of (a); and
3. subaqueous sediment (cl.4 of the ERS).

**‘MD No. 1’** means Ministerial Direction No. 1, Potentially Contaminated Land made under s. 12(1A) of the Planning and Environment Act 1987, as varied from time to time.

**‘minimising risks of harm to human health and the environment’** is defined in section 6(1) of the EP Act 2017. It is a duty imposed on a person under the EP Act 2017 to minimise, so far as reasonably practicable, risks of harm to human health and the environment. It requires the person-

1. to eliminate risks of harm to human health and the environment so far as reasonably practicable; and
2. if it is not reasonably practicable to eliminate risks of harm to human health and the environment, to reduce those risks so far as reasonably practicable.

**‘NEPM’** means the National Environment Protection (Assessment of Site Contamination Measure, 1999, as amended from time to time.

**‘potentially contaminated land’** is defined in the Ministerial Direction No. 1 (MD No. 1) and Victorian Planning Provision (VPP) and means land-

* used or known to have been used for industry or mining;
* used or known to have been used for the storage of chemicals, gas, wastes or liquid fuel (other than minor above ground storage that is ancillary to another use of the land); or
* where a known past or present activity or event (occurring on or off the land) may have caused contamination on the land.

**‘priority waste’** is defined in the EP Act 2017 to be any waste, including municipal waste and industrial waste, that is prescribed to be priority waste for the purposes of-

* eliminating or reducing risks of harm to human health or the environment posed by the waste; or
* ensuring the priority waste is managed in accordance with Part 6.5 of the EP Act 2017; or
* facilitating waste reduction, resource recovery and resource efficiency (section 138 of the EP Act 2017).

**‘preliminary risk screen assessment** **(PRSA)’** is an assessment used to assess the likelihood of the presence of contaminated land, to determine if an environmental audit is required and if an environmental audit is required to recommend a scope for the environmental audit (section 204 of the EP Act 2017).

**‘reasonably practicable’** the EP Act 2017 specifies at section 6 that to determine what is (or was at a particular time) reasonably practicable in relation to the minimisation of risks of harm to human health and the environment, regard must be had to the following matters-

1. the likelihood of those risks eventuating;
2. the degree of harm that would result if those risks eventuated;
3. what the person concerned knows, or ought reasonably to know, about the harm or risks of harm and any ways of eliminating or reducing those risks;
4. the availability and suitability of ways to eliminate or reduce those risks;
5. the cost of eliminating or reducing those risks.

**'remedial notice’** refers to any of the following notices issued under the EP Act 2017: an environmental action notice, an improvement notice, a notice to investigate or a prohibition notice.

**‘requestor’** refers to the person who requested the environmental auditor to conduct the audit, for example, a site owner, occupier, potential purchaser of land or someone in management or control of a site.

**‘risk of harm (activity) audit’** means an environmental audit to assess the nature and extent of the risk of harm to human health or the environment from an activity. The audit will include recommendations to manage the risk of harm to human health or the environment from the activity, and provide recommendations to manage the activity, where required. The scope of an environmental audit of an activity can range from an assessment of all environmental aspects of a complex activity (such as a large scale industrial premises) to a focused assessment of a small component of an activity. This type of audit will often be triggered by a statutory notice, or be a condition on a sites licence to operate, or can be voluntarily triggered by a duty holder to understand the risks of their site.

Examples of a ‘risk of harm (activity) audit’ include audits to:

* assess the risk to air quality from a petrochemical complex;
* assess the risk to surface waters and groundwater from a wastewater treatment plant;
* assess whether a landfill cell liner has been constructed in accordance with nominated requirements, thereby minimising risks to land and groundwater.

**‘risk of harm (contaminated land, waste or pollution) audit’** means an environmental audit to assess the nature and extent of the risk of harm to human health or the environment from contaminated land, waste or pollution. The audit will include recommendations to manage the risk of harm to human health or the environment from contaminated land, waste or pollution; and provide recommendations to manage the contaminated land, waste or pollution, where required.

The scope and objective of a ‘risk of harm (contaminated land) audit’ should not include the environmental auditor making a statement on land use suitability. The intent of this type of audit is to provide information to interested parties about the risks of harm and how it can be managed. The intent of this type of audit is to provide information to interested parties about the risks of harm and how it can be managed. It can often by triggered by a statutory notice or can be voluntarily triggered by a duty holder to understand the risks of their site.

Examples of a ‘risk of harm (contaminated land, waste or pollution) audit’ includes audits to:

* assess that risks of harm from a chemical spill have been cleaned up so far as reasonably practicable, and provide recommendations about managing risks of harm that may remain at the site from the chemical spill;
* assess the risks a plume of groundwater contamination extending over a large area/multiple properties poses to human health and the environment and provide recommendations to remediate and manage those risks of harm.

**‘sensitive use’** is defined under the MD No. 1 to mean residential use, child care centre, kindergarten, pre-school centre or primary school, even if ancillary to another use.

**‘site’** is defined in the EP Act 2017 as specified land or a specified parcel of land.

**‘site management order (SMO)’** means an order issued under section 275 of the EP Act 2017.

**‘suitability of land use audit’** means an environmental audit to assess the nature and extent of the risk of harm to human health or the environment from contaminated land to determine if the site is suitable for a use or proposed use. The audit will also include measures to manage the risk of harm to human health or the environment from contaminated land and recommend management of the contaminated land. This type of audit is primarily triggered by the planning system it can help relevant planning authorities make appropriate planning decisions about potentially contaminated land. It can also be voluntarily triggered by a duty holder to understand the land use suitability of their site.

**‘suitably qualified professional’** means a type of profession identified by an environmental auditor or responsible or planning authority (as relevant) to undertake a specific type of work, with qualifications, expertise and/or relevant industry experience that the environmental auditor and/or responsible or planning authority is satisfied makes the individual capable of performing the specific type of work. It may be (but not limited to) an environmental consultant, environmental auditor, type of engineer or specialist.

**‘surface water’** means waters other than groundwater (cl. 4 of the ERS).

**‘waste’** includes any of the following-

1. matter, including solid, liquid, gaseous or radioactive matter, that is deposited, discharged, emitted, or disposed of into the environment in a manner that alters the environment;
2. a greenhouse gas substance emitted or discharged into the environment;
3. matter that is discarded, rejected, abandoned, unwanted or surplus, irrespective of any potential use or value;
4. matter prescribed to be waste;
5. matter or a greenhouse gas substance referred to in paragraph (a), (b), (c) or (d) that is intended for, or is undergoing, resource recovery (s.3 of the EP Act 2017).

## Related documents

This guideline should be read in conjunction with, and each environmental auditor must have regard to:

* the EP Act 2017, particularly Part 8.3, the [*Environment Protection Regulations 2021*](https://www.epa.vic.gov.au/about-epa/laws/new-laws/subordinate-legislation) (‘Regulations 2021’), the [*Environment Reference Standard 2021*](https://www.epa.vic.gov.au/about-epa/laws/new-laws/subordinate-legislation) (‘ERS 2021’), any relevant compliance code made under Part 5.3 of the EP Act 2017, and any policies created under the EP Act 2017;
* any guidelines issued by EPA under section 203, and any other guidelines issued by EPA for the purposes of Part 8.3 of the EP Act 2017 (including those listed in Appendix A); and
* any other relevant legislation.

When conducting an audit to assess the suitability of land use, the environmental auditor should have regard to the [MD No. 1](https://www.planning.vic.gov.au/__data/assets/pdf_file/0035/539909/Ministerial-Direction-No.-1-Potentially-contaminated-land.pdf) and the [Planning Practice Note 30 (PPN30)](https://www.planning.vic.gov.au/__data/assets/pdf_file/0027/97164/PPN30-Potentially-contaminated-land.pdf). Environmental auditors should also consider the relevance of other published standards that may be applicable to a particular audit and apply them as appropriate.

# Who can engage an environmental auditor?

The EP Act 2017 makes provision for any person to engage an environmental auditor. An environmental auditor may be engaged by any of the following (this is a non-exhaustive list):

* a person in management or control of a site;
* the owner/occupier of the site to be audited;
* a representative of the owner/occupier of the site;
* the manager of an activity (e.g., road construction, landfill liner construction);
* a prospective purchaser of a site or another person with written consent from the owner/occupier;
* a member of the community or a community group interested in a public element of the environment (e.g., a river catchment); and
* statutory authorities or government departments that have responsibilities associated with a site or environmental element being audited (e.g., the EPA, Local Government, State Government departments, Catchment Management Authorities, etc).

# Roles and Responsibilities

## Responsibilities of an environmental auditor

Part 8.3 of the EP Act 2017 imposes responsibilities on environmental auditors. These are explained, along with other expectations, in [Environmental auditor guidelines for appointment and conduct (publication 865).](https://www.epa.vic.gov.au/about-epa/publications/865-12)

## Person in management or control of an audit site

The person in management or control of an audit site has the primary responsibility for ensuring and demonstrating compliance with any recommended measures or management requirements in an environmental audit statement. This may require the person in management or control of an audit site to retain a suitably qualified professional to provide verification services after the environmental audit statement has been issued, implementation of a management plan or continued groundwater monitoring in accordance with a Groundwater Quality Management Plan (GQMP).

For suitability of land use audits the person requesting the audit is often not the person in long-term management or control of the audited site. Often the person in management or control of the site may be a land developer who will sell the site after development. It is recommended to involve an environmental auditor from the start of the assessment process.

The person in management or control of the site must provide a copy of any preliminary risk screen assessment statement and/or environmental audit statement issued (as relevant) in respect of a site to any person who proposes to become the person in management or control of the site, which would include a prospective purchaser and in particular any environmental audit statement recommendations that require ongoing compliance (section 214 of the EP Act 2017).

Where land is to be subdivided, ongoing obligations in an environmental audit statement may need to be coordinated by an owner’s corporation. For example, centralised management can manage any ongoing audit recommendations that may include monitoring, maintenance, and repairs.

## Responsible authority and/or Planning authority

The relevant responsible or planning authority, usually the local council[[2]](#footnote-2), is responsible for administering the planning scheme to regulate use and development of land, including development within landfill buffers or wind energy facilities. This can include the following:

* considering the potential for land to be contaminated when proposing land use changes (including changes to permitted land uses or through rezoning proposals) and when assessing planning permit applications and ensure that the site is suitable for its proposed use;
* including any relevant environmental audit statement recommendations in planning permits, planning scheme amendments or agreements that cover use or development of the audit site;
* liaising with other authorities that have more appropriate tools for ensuring environmental audit statement recommendations are implemented (for example EPA in the case of groundwater monitoring).

Council staff may ask permit holders to submit independent verification of compliance with relevant environmental audit statement recommendations by an environmental auditor or suitably qualified professional.

## EPA

EPA is responsible for operation and administration of the environmental audit system including (with specific regard to environmental audits):

* appointment and reappointment of environmental auditors;
* providing guidance for the conduct of audits; and
* maintaining a quality assurance program for environmental audits.

EPA is not responsible for implementing environmental audit statement recommendations or associated management plans; this obligation belongs to those who manage or control the relevant land or engage in activities on that land. If EPA elect to monitor or take enforcement steps regarding land subject to environmental audit statement recommendations or associated management plans, EPA may do so through a Site Management Order, a Notice, direction, or other instrument pursuant to the EP Act 2017 requiring the implementation of a recommendation. Compliance may also be sought through voluntary compliance.

## Other agencies

Agencies such as Catchment Management Authorities, water authorities (for example Southern Rural Water), the Department of Transport and Planning (DTP), and the Department of Energy, Environment and Climate Action (DEECA) may have a role in providing information (for example regional groundwater data) relevant to an audit. Other regulatory agencies may also have a role in:

* compliance with some recommendations in an environmental audit statement (for example via the licensing system for construction of new groundwater extraction bores, where the environmental audit statement precludes the extraction of groundwater); and
* providing information related to the quality of the environment and its suitability for use.

## Other stakeholders

Duty holders, project managers, architects, builders and building surveyors should consider the suitability of the site for use and the environmental audit statement recommendations before proceeding with occupation of buildings for audited development sites.

For example, where an environmental auditor has made recommendations that include protective measures to be installed during construction, it is expected that the environmental audit statement and any written verification evidence of compliance required by the audit recommendations, is observed by the building surveyor before completion of an occupancy permit.

Environmental auditors and relevant building surveyors are encouraged to collaborate wherever possible.

# When is an audit required?

It is impossible to provide an exhaustive list of all the instances when an audit may be undertaken. However, examples of such instances include an audit:

* required for the purposes specified in a preliminary risk screen assessment statement, pursuant to section 206 (1)(b)(ii) of the EP Act 2017;
* required by a statutory notice or a permission;
* required as a condition of a planning permit;
* required by an environmental audit overlay;
* required by a court pursuant to section 333 of the EP Act 2017;
* requested by a person as part of a proposed better environment plan, pursuant to Part 8.2 of the EP Act 2017;
* required in accordance with codes of practice or guidance incorporated under any Victorian statute, for example, the Victorian Code for Cattle Feedlots;
* required in accordance with management or operational guidance such as a management plan or strategy; or
* undertaken voluntarily, for example, for due diligence purposes.

In circumstances where an environmental auditor is unclear as to whether an audit is to be conducted in accordance with section 208 of the EP Act 2017, advice should be sought from the Environmental Audit Unit (e‑mail [environmental.audit@epa.vic.gov.au](mailto:environmental.audit@epa.vic.gov.au), phone 1300 372 842).

Sections 5.1 to 5.4 of this guideline provide further detail on the common instances where an environmental audit may be required.

## Audit required by permissions and notices

EPA may, via a statutory notice or permission, require a person in management or control of a site or an activity to engage an environmental auditor to conduct an audit to assess the nature and extent of the risk of harm to human health or the environment from contaminated land, waste, pollution, or any activity.

Audits required by EPA through a statutory notice or permission requirement will be monitored and reviewed to ensure they meet the criteria outlined in the notice or permission.

If a person is convicted or found guilty of an offence against the EP Act 2017, or the Regulations 2021, or if a person is found to have contravened a civil penalty provision in the EP Act 2017, the court may order the person to engage an environmental auditor to conduct a preliminary risk screen assessment or an audit[[3]](#footnote-3).

## Audits and permission applications

In some circumstances, EPA requires an audit to be completed as part of a permission application such as for development licence applications for landfill cells.

In these circumstances, the environmental auditor should prepare the relevant application in the form of an audit report regarding the risks caused by the proposed activity in accordance with the requirements of the EP Act 2017.

## Audits of strategies, management procedures or guidance

Government authorities and agencies may require an audit to be undertaken which involves the assessment of the compliance with, or implementation of, specified codes, policies, strategies or other management or operational guidance.

The environmental auditor should work with the requestor to establish the scope of the audit and to ensure that an effective assessment is completed within the context of the nature and scale of the requestor’s operation.

## Audits required by the responsible authority or a planning authority

MD No. 1, issued under the Planning and Environment Act 1987, requires planning authorities to ensure that potentially contaminated land[[4]](#footnote-4) is suitable for some proposed uses under an amendment to a planning scheme. Some land uses present a higher risk of exposure to any contamination present. These uses are sensitive uses (residential use, childcare centres, kindergartens, pre-school centres or primary schools, even if ancillary to another use) and secondary schools and children’s playgrounds.

PPN30 provides guidance on how to identify potentially contaminated land, the appropriate level of assessment of contamination in different circumstances, appropriate conditions on planning permits and circumstances where an environmental audit overlay should be applied or removed.

An environmental audit overlay can be used by the planning authority to defer the requirements of MD No. 1 from the time of the planning scheme amendment until the land suitability needs to be considered. If a site is covered by an environmental audit overlay, an audit to determine the suitability for land use will be required prior to the change to a sensitive use, secondary school, or children’s playground.

The planning authority will use MD No. 1, VPP and PPN30 to satisfy themselves that the land is suitable for its intended use and can use the audit system to require completion of a preliminary risk screen assessment (PRSA) to determine the likelihood of contamination or an audit to determine the suitability for land use.

Refer to [*Guideline for conducting preliminary risk screen assessments* (publication 2021)](https://www.epa.vic.gov.au/about-epa/publications/2021) for information on PRSAs.

When undertaking an audit to determine the suitability for land use, the environmental auditor will assess the suitability of a site for the use or proposed use. The environmental auditor may provide recommendations in relation to ongoing management of any residual contamination. Examples of recommendations are provided in Appendix D.

For audits required for any development within the buffer of an operating or closed landfill, the audit will need to assess the risks of harm to all buildings and structures (not limited to sensitive uses) posed by the potential off site migration of landfill gas and amenity impacts resulting from the landfill. These audits can be required by a planning permit application or when the responsible authority is considering a planning scheme amendment that would allow development within a buffer. Refer to [Assessing planning proposals within the buffer of a landfill (publication 1642)](https://www.epa.vic.gov.au/about-epa/publications/1642) for further information.

# Notification of a request to conduct an environmental audit

If an environmental auditor is engaged to conduct an audit pursuant to section 208 of the EP Act 2017, the environmental auditor must notify EPA’s Environmental Audit Unit within five business days of receiving the request in accordance with section 209 of the EP Act 2017.

Notification of a request to conduct an audit must be made via the EPA [portal](https://portal365.epa.vic.gov.au/)[[5]](#footnote-5) on EPA’s website.

# Audit objectives

It is important to determine the objectives for an environmental audit early in the process. When establishing the objectives, the environmental auditor should consider the purpose of an environmental audit as outlined in section 208 (2) of the EP Act 2017 and section 1.1 of this guideline.

The objectives of an audit must include consideration of risk of harm to human health or the environment from contaminated land, waste, pollution, or an activity and will guide the scope and conduct of the audit.

An audit may have multiple objectives. Some examples of objectives of an audit include:

* assessment as to whether risks to human health or the environment are being managed adequately;
* assessment of the suitability of a site for its current or proposed future uses;
* identification of risks to human health or the environment and an order of priority by which they should be addressed;
* assessment of the adequacy of implementation of a code, policy, strategy, or plan that manages risks to human health or the environment;
* an independent assessment of environmental performance, for the purposes of reporting on, for example:
  + a contractor’s environmental performance to a contract principal; or
* the environmental performance of an organisation (such as an industrial facility or government agency) to a client, stakeholder and/or community group.

# Defining the scope of an environmental audit

An environmental auditor must, before conducting an audit, submit the proposed scope of environmental audit to the Authority together with any supporting documentation. This requirement does not apply if:

* a preliminary risk screen assessment has already been conducted and the preliminary risk screen assessment states that an environmental audit is required and:
  + the Authority has previously endorsed a proposed scope or previously determined a revised scope of the environmental audit; and
  + the environmental auditor has not proposed amendments to the proposed scope or the revised scope[[6]](#footnote-6).

The proposed audit scope is expected to be prepared using the Proposed scope of environmental audit form (F1033) (<https://www.epa.vic.gov.au/about-epa/publications/f1033>) and submitted to EPA via the EPA [portal](https://portal365.epa.vic.gov.au/) on EPA’s website.

Sections 8.1-8.5 of this guideline address the components of the scope in detail.

## Identifying the nature of the audit

When submitting a proposed scope, an audit is classified into one of the following three categories:

* suitability of land use; or
* risk of harm from an activity; or
* risk of harm from contaminated land, waste, or pollution.

The environmental auditor should consider the purpose and objectives of the audit to determine the category which best describes it.

Suitability of land use audits are used to determine if the site is suitable for a defined use or zoning and what recommendations are required (if any) to make it suitable. A responsible authority and/or planning authority would generally require this type of where the audit is being undertaken to support a planning application or scheme amendment. However, they are also completed in other circumstances such as voluntarily or in response to an EPA notice.

Risk of harm from an activity type audit is used to determine if the risks associated with an activity are acceptable and being managed appropriately. The complexity of the audit is likely to be dependent on the nature of the activity. The activities audited can be both past and/or present activities. These audits are frequently completed to address licence and notice conditions for current and former landfills but may be completed for a range of activities.

A risk of harm from contaminated land, waste, or pollution type audit generally focusses on specific known or suspected contamination, waste or pollution, where gaining a broad understanding of potential sources and/or activities may not be required. This type of audit may be undertaken voluntarily or may be a suitable response to some EPA notices (E.g., to validate the effectiveness of clean up and assess residual risk following a pollution incident).

The scope required to complete an audit may vary dependent on its nature. Risk of harm audits may be tailored to a specific activity or defined contaminated land, waste, or pollution issue for which only specific elements of the environment and contaminants may be considered relevant. Suitability of land use audits will be required to demonstrate that the site history is sufficiently understood, that all current and former potentially contaminating sources and activities have been adequately considered and that all elements of the environment likely to be impacted by contamination have been adequately investigated. While it is possible for a suitability of land use audit to consider suitability for a specific development, where potential risk is identified, the environmental auditor will need to consider more broadly the way in which the site may be used under the proposed zoning, to ensure recommendations appropriately manage risk.

## Identifying the audit site or activity

When submitting the proposed scope, the environmental auditor will identify the site or the activity to be audited.

The site to be audited must be clearly identified. Items that EPA expect to be provided where applicable include, but are not limited to:

* site/premises name;
* address;
* title details;
* area (m2);
* the current use or proposed use for which the site is being audited (for suitability of land use audits).

For an environmental audit of an activity the following applies where applicable:

* description of the activity;
* components of the activity;
* the geographical extent (i.e., extent of area relevant to the activity being audited).

The environmental auditor is responsible for ensuring that the boundaries of the audit site as identified in the proposed scope, are accurately represented in the environmental audit report and environmental audit statement. The environmental auditor will provide the GIS coordinates[[7]](#footnote-7) when notifying of the environmental audit through EPA’s portal on EPA’s website.

Some audit sites may be split into one or more sub-areas for the purpose of issuing separate environmental audit statements. Each sub-area boundary should align to existing or proposed parcel boundaries. No single sub-area should be smaller than any lot size in an existing or proposed subdivision. Where such parcel boundaries are proposed rather than existing, advice from the responsible authority should be sought before commencing the audit.

In some cases, the environmental auditor may need to exclude a part of the site due to safety concerns. For example, if there is an active substation within an audit site. In such cases the environmental auditor can consider excluding the substation for the audit area or completing the audit with two environmental audit statements (i.e., one for the substation area and one for most of the audit site).

EPA recognises that in some specific cases the above requirements may be considered overly restrictive. In such cases the approach can be discussed with EPA.

In some cases, the environmental auditor may need to revise the boundaries of the audit site during the conduct of the environmental audit. This could occur for example, if the audit site is divided into smaller portions to be audited individually. Any changes to the boundaries of the audit site will need to be formally notified to EPA. The auditor should contact the Environmental Audit Unit for further information.

## Identifying the elements and environmental values to be considered

The following are the elements of the environment which the environmental auditor should consider assessing as part of an audit:

* ambient air;
* ambient sound;
* land; and
* water (groundwater and surface water).

The ERS 2021 specifies the environmental values for these elements and brings together a collection of indicators and objectives for specified land use categories that describe environmental or human health outcomes to be achieved or maintained in the whole of or parts of Victoria. The environmental values of an element of the environment need to be identified before any risk of harm or detriment to them can be assessed.

In considering the environmental values for an element of the environment, the environmental auditor should have regard to other documents such as relevant strategies or plans governing the management of those elements of the environment subject to the audit.

The environmental auditor should consider all elements and relevant environmental values when developing the scope of the audit, to ensure that the scope will address the purpose of the audit. The environmental auditor will establish which elements and environmental values are relevant to be included in the scope. Explanation for the exclusion of elements or environmental values from the scope should be provided to justify that these exclusions are consistent with the audit purpose.

The environmental auditor needs to assess whether the condition of the audit site threatens the achievement or maintenance of environmental values.

The environmental auditor must consider the ERS 2021, and guidance for environmental auditors on how to apply the ERS is provided in [Guide to the Environment Reference Standard (publication 1992).](https://www.epa.vic.gov.au/about-epa/publications/1992)

## Identifying the audit criteria

Audit criteria are the requirements and key factors against which the audit is undertaken and completed and will vary depending on the scope and objectives of the audit. The standards and reference documents to be considered must be provided with the scope of work for the audit.

Audit criteria need to be chosen carefully to ensure that the objectives of the audit will be met and may come from a variety of sources, including:

* the ERS (e.g., indicators and objectives identified in the ERS can be used as audit criteria to assess the risk to environmental values);
* legislation (in particular, the EP Act 2017);
* the Regulations 2021;
* conditions contained in EPA notices or permissions;
* codes of practice;
* management and/or monitoring plans or strategies;
* guidelines or procedures (including EPA guidelines); and
* other documents that form the basis of best practice and the state of knowledge[[8]](#footnote-8).

All applicable sources should be reviewed for requirements and key factors relevant to the objectives of the audit and the aspects used as criteria where appropriate.

Other management structures which are already in place, may also be used as audit criteria where applicable, for example, site management plans (e.g., an environmental management system, a better environment plan, or a waste management plan) or other approved plans (e.g., a landfill cell construction quality assurance plan).

Occasionally background levels are greater than environmental objectives and indicators in the ERS. In these instances, the background level becomes the default objective for the evaluation of an environmental value. In some circumstances, EPA may make, or may have made, a determination[[9]](#footnote-9) under section 36(a) of the EP Act 2017 on specific chemical substances or in specific environmental settings which adjusts the definition of ‘background levels’ for those substances or circumstances. To assess the naturally occurring background level of a chemical substance, refer to [Background Levels: Methodology guidance (publication 2033](https://www.epa.vic.gov.au/about-epa/publications/2033)) and EPA website for any other determinations.

A non-exhaustive list of useful guidance documents is provided in Appendix A of this guideline. When identifying audit criteria, an environmental auditor should consult the EPA website for a list of all relevant EPA guidelines.

## Other information to be included

In addition to the above, the environmental auditor will also include the following information in the proposed scope:

* exclusions from the environmental audit and rationale for these;
* any assumptions made by the environmental auditor or any limitations on the environmental audit; and
* supporting documentation.

## General information

The audit scope should support the collection of sufficient information to allow completion of the audit. The audit scope and objectives must be clearly stated in the audit report.

The environmental auditor should ensure that the requestor agrees to the proposed scope, and the environmental auditor should be satisfied that the proposed scope will enable the audit objectives to be met before proceeding with the audit. Any changes to the audit scope should be documented and agreed to by the environmental auditor and the requestor.

EPA may review the proposed scope of an audit and either endorse the proposed scope or determine a revised scope. Before endorsing the proposed scope, EPA may request that the environmental auditor provide further information in relation to the proposed scope. If the Authority decides to review the proposed audit scope, the Authority must complete the review within 30 business days of receiving the proposed scope[[10]](#footnote-10). However, this does not include any time which elapses between requesting additional information (in relation to the audit scope) and receiving that information.

For environmental auditor’s completing an audit of landfill operations or cell construction, refer to [Landfill licensing (publication 1323)](https://www.epa.vic.gov.au/about-epa/publications/1323-3) and [Siting, design, operation and rehabilitation of landfills (publication 788.3)](https://www.epa.vic.gov.au/about-epa/publications/788-3) for information regarding the relevant audit scopes, and for landfill aftercare management, refer to [Closed Landfill guidelines (publication 1490).](https://www.epa.vic.gov.au/about-epa/publications/1490-1)

# Conducting the audit

In conducting an audit, an environmental auditor must act independently and should:

* review existing information about the current and historical activities conducted on site and on adjacent sites that may result in contaminated land and/or other element/s of the environment;
* consider the likely effect and extent of the effect on land from past and current activities conducted at the site;
* consider the potential for any waste, chemical substance, prescribed substance, or pollution to be present on land at surface or depth, which may compromise the environmental values at the site;
* consider the chemical and physical properties of any waste, chemical substance, or pollution to be present on land at surface or at depth, which may compromise the environmental values of the site;
* review the site conceptual model;
* consider geology, hydrogeology, topography of the area. This may also include likely future use of water resources, including groundwater and stormwater runoff;
* consider the presence of surface water, where a surface water body exists within the boundary of the site;
* consider how the elements of the environment at the audit site may affect other elements of the environment at the audit site or off site;
* consider land use planning, zoning, and development information;
* collect and verify evidence to support findings relating to the audit criteria;
* assess environmental monitoring data, correspondence, or environmental records/reports (if available);
* seek further information about the condition of the site (if necessary);
* where applicable, consider all reasonable uses (not just the current use) of land and groundwater and the ecological functioning of the area (including potential off site impacts) when assessing contaminated land;
* form an opinion as to whether all applicable environmental values are being achieved or maintained at the site;
* form an opinion regarding the actual condition of the site and if there are risks of harm to human health or the environment;
* form an opinion regarding the practicability of clean up and/or controls which are required for the audit site;
* provide recommendations to manage the risk of harm to human health or the environment associated with contaminated land, waste or pollution or any activity; and
* prepare an audit report and an environmental audit statement, and provide those documents to relevant parties (EPA, person requesting the audit, planning authority and the responsible authority if required), in accordance with the EP Act 2017 and [Environmental auditor guidelines - Provision of statements and reports for environmental audits and preliminary risk screen assessments (publication 2022).](https://www.epa.vic.gov.au/about-epa/publications/2022) Environmental audit statements and reports must be provided to EPA within five business days[[11]](#footnote-11).

An environmental auditor’s expert support team forms an integral part of their appointment and the capacity to satisfactorily conduct audits. It is important that the environmental auditor documents in the environmental audit report the level of expert advice obtained and relied upon to form an opinion. For further information on the use of an expert support team, refer to [Environmental auditor guidelines for appointment and conduct (publication 865).](https://www.epa.vic.gov.au/about-epa/publications/865-12)

## Review of existing information

An environmental auditor should review all information and data relevant to the scope and objectives of the audit, which may include the:

* activities currently and previously undertaken on and around the audit area and/or elements being audited;
* nature of the elements;
* nature of the infrastructure at the site;
* previous assessments for contamination of land and/or groundwater;
* industry best practice;
* roles and responsibilities of the requestor;
* history relating to requestor’s compliance with statutory controls, including:
  + the EP Act 2017, including any regulations and instruments made under it;
  + permissions (licenses, permits and registrations), and notices;
  + trade waste agreements[[12]](#footnote-12) (if applicable);
* wastes generated (routine and non-routine), including:
  + emissions to air;
  + emissions to water;
  + discharges and deposits to land (such as waste burial, importation of fill);
  + discharges to groundwater;
  + industrial waste;
* waste management:
  + implementation of waste hierarchy;
  + energy use and management;
  + waste storage, handling, transport, and disposal;
* environmental impact:
  + adequacy of environmental monitoring and reporting;
* environment protection measures:
  + pollution control equipment;
  + materials handling;
  + contingency plans;
  + process control;
* management tools, including any:
  + environmental monitoring plans;
  + environmental management systems;
  + organisation policies and procedures;
  + better environment plan;
  + relevant publications;
  + previous audit reports completed for the site, or an activity.

The information and data may be held by several parties including the requestor, government agencies such as EPA, the Victorian WorkSafe Authority, DEECA, DTP and Catchment Management Authorities (not an exhaustive list). The environmental auditor should explore all relevant options when considering sources of information.

## Verification sampling

The environmental auditor should determine compliance with audit criteria after considering all information collected. The environmental auditor needs to satisfy themselves that the data is of a standard that allows them to form an opinion.

Information collected may include:

* environmental monitoring data (e.g., soil, sediment, surface water, groundwater, vapour, air, dust, or noise samples);
* management system records such as:
  + environmental monitoring records;
  + operational records;
  + correspondence;
* personal observations or measurements; and
* environmental quality data collected or provided by the requestor.

Where sampling and monitoring data is collected by an assessment team (of suitably qualified professionals), the environmental auditor should be provided with the scope and design of the work to be completed and given an opportunity to provide feedback to the assessment team. The environmental auditor (or their representative) can undertake site visits and collect samples to verify the data provided by the assessment team or the requestor. The requestor and assessment team should also be required by the environmental auditor to verify and ensure that any data collected and provided to the environmental auditor is adequate for the purposes of the audit (although such verification does not remove the auditors' obligations to ultimately be satisfied that all data provided is adequate).

To determine compliance with some criteria, calculations and measurements may be necessary. In other cases, the environmental auditor’s judgement and experience should be used to make an assessment.

## Environmental monitoring data

In evaluating environmental monitoring data, the environmental auditor should be satisfied that the data is representative of the site, or activity being audited. In evaluating such data, the environmental auditor should consider the following, non-exhaustive list:

* appropriateness of sampling and analysis procedures, e.g., compliance with relevant EPA guidelines and Australian Standards (including but not limited to AS4482.1 and AS4482.2)
* site operations that may be occurring at the time of the sampling;
* training and qualifications of the person conducting the sampling/monitoring; and
* suitability of analysis processes, e.g., use of a laboratory that is National Association of Testing Authorities (NATA) accredited for that analysis.

The environmental auditor is expected to outline the approach and steps taken to review, evaluate and verify data relied upon in the audit report.

## Use of risk assessment

Section 208 of the EP Act 2017 requires an audit to assess and manage risk. While some form of risk assessment will always be required its use may vary. Risk assessment can be used to:

* refine the audit scope to focus on issues of concern;
* evaluate the potential risk of harm to environmental values for elements of the environment, based on site specific evidence (which includes sampling and monitoring data, management records, site visits, etc);
* inform approaches and needs for risk communication; and/or
* inform decision makers in other government jurisdictions when relevant.

### Risk assessment to refine the scope

Where an audit is to be conducted of a complex activity (e.g., a large industrial site or a catchment with many activities), a risk assessment may be conducted to focus the audit. Generally, this would involve a process of hazard identification, analysis of risks (assessment of likelihood, consequence, and impact) and categorisation of the risks. It is important that the audit scope clearly identifies how this process will be used (refer to section 8 of this guideline). The audit may then focus on high-risk areas. The risk assessment process needs to be clearly documented and areas that have been excluded from the audit noted in the audit report.

### Assessing risk to environmental values

The environmental auditor must assess and report on the actual or potential risk of harm to applicable environmental values of the elements concerned. This may involve the application of risk assessment methodology to the audit process to determine whether a risk to an environmental value exists. The environmental auditor and requestor should agree on the level of risk assessment required and any exclusions are expected to be clearly documented.

This assessment should be outlined within the audit report and be undertaken in accordance with a recognised methodology.

It would not generally be considered acceptable for risks to environmental values to only be assessed based on the presence of current or proposed administrative or engineering controls. An understanding of whether or not applicable environmental values are threatened should be established. This should be based on indicators and objectives developed in accordance with the Environment Reference Standard. It is likely to be required to:

* determine if land is contaminated in accordance with the definition within Section 35 of the EP Act 2017;
* demonstrate that the nature and extent of the risk of harm to human health or the environment is sufficiently understood such that the statutory purpose of an audit under Section 208 of the EP Act 2017 is being fulfilled; and
* to demonstrate current and/or proposed measures to manage the risk of harm to human health or the environment are practicable and effective.

### Addressing risks of harm to human health or the environment

The environmental auditor must assess and report on the actual or potential risk of harm to human health or the environment. Where the audit has identified risks of harm to human health or the environment, the environmental auditor must recommend measures to manage the risk of harm and make recommendations to manage the contaminated land, waste, pollution, or activity.

The duty to manage contaminated land (section 39 of the EP Act 2017) requires a person in management or control of contaminated land to minimise risks of harm to human health and the environment from contaminated land so far as reasonably practicable. The environmental auditor should provide recommendations in the audit that ensure that the risks of harm are minimised so far as reasonably practicable. Section 6(1) of the EP Act 2017 outlines the concept of minimising risks of harm and section 6(2) of the EP Act 2017 outlines how to determine what is reasonably practicable. EPA expect the audit to include measures to prevent impacts from the audit site to other sites.

The environmental auditor should consider the Principles of Environment Protection (Part 2.3 of the EP Act 2017) when making recommendations for the management or risks of harm. The environmental auditor should first assess the practicability of clean up as a measure to manage any identified risks of harm before recommending engineering or administrative management measures. The EPA does not consider it appropriate for an environmental auditor to recommend further investigation or site clean up to render the site suitable for a use or proposed use in the environmental audit statement.

Where clean up has been undertaken as part of an audit, the environmental auditor should report what the condition of the land and/or groundwater was prior to the clean up. They should specify the clean up work that was undertaken and demonstrate the outcome of the work, specifically reporting on the condition of any compromised environmental values and risks of harm to human health.

Clean up activities (including remediation) of a site under audit may comprise one, or a combination of the following: soil excavations and removal, backfilling, on-site treatment equipment, partial basement construction (including engineering stabilisation of basement walls and floor), placement of vapour barriers, installation of groundwater remediation wells and possible water treatment systems and associated piping. EPA encourages collaboration between the environmental auditor and the planning or responsible authority to identify the full scope of proposed remedial works and likely time involved.

Refer to [Guidance for the cleanup and management of contaminated groundwater (publication 2001)](https://www.epa.vic.gov.au/about-epa/publications/2001) for further information on groundwater clean up. For specific information on management of contaminated land, refer to [Contaminated land: understanding section 35 of the Environment Protection Act 2017 (publication 1940)](https://www.epa.vic.gov.au/about-epa/publications/1940) and [Guide to the duty to manage contaminated land (publication 1977.1)](https://www.epa.vic.gov.au/about-epa/publications/1977-1) [.](https://www.epa.vic.gov.au/about-epa/publications/1977) Refer to Appendix D of this guideline for further information when conducting an environmental audit to assess suitability of land use.

## Groundwater

The environmental auditor must have regard to Guidance for the [cleanup and management of contaminated groundwater (publication 2001),](https://www.epa.vic.gov.au/about-epa/publications/2001) when assessing the clean up and/or management of groundwater. This guideline provides advice on what EPA considers to be minimum documentation to provide in the audit report.

When assessing groundwater, the environmental auditor is required to determine if applicable environmental values of groundwater are threatened, regardless of whether this is associated with site-derived or off-site sources of contamination. Consideration should be given to clearly distinguishing between natural background conditions, site derived contamination and contamination from off-site sources. This may be required to inform appropriate assessment of risks and management recommendations.

Where there are risks of harm to human health or the environment that restrict groundwater use, the environmental auditor should prepare a figure that delineates the extent of the groundwater impact and lists the affected environmental values and attach it with the audit report[[13]](#footnote-13). Environmental audit recommendations need to be clear on how to manage on and/or off site risks to human health or the environment from groundwater contamination and should identify the responsible party for addressing those recommendations. There is an obligation under the duty to manage for the person in management or control of contaminated land to provide adequate information to any person who may be affected by the contamination[[14]](#footnote-14).

An environmental audit statement without recommendations should not be issued where there are risks of harm identified to human health or the environment for relevant environmental values of groundwater.

## Considerations when assessing the suitability of land use

When an environmental auditor is conducting an audit to assess suitability of land uses, the environmental auditor should consider the following when making recommendations:

* they must not place limitations on activities or uses of the site that are inconsistent with the land use/s nominated in the environmental audit statement;
* they should, to the extent practicable, be consistent with planning and building constraints on the site;
* where practical and appropriate, recommendations may be linked to an approved development plan;
* they should not require further assessment that is contrary to the requirement for the environmental auditor to form an opinion regarding the condition of the audit site and its suitability for use (including consideration of any environmental value); and
* they must clearly state the nature and extent of all risks of harm to human health or the environment which require management to render the site suitable for the nominated use.

Refer to Appendix D for further guidance on recommendations for suitability of land use audits.

## Vapour

The nature, extent, and risk from vapour at the site is required to be assessed when the site history or investigations identifies the potential presence of volatile compounds (e.g., petroleum hydrocarbons, chlorinated solvents, etc.) in soil or groundwater. The sampling of soil vapour and the assessment of vapour intrusion and inhalation risks is a complex and specialist component of a contaminated land assessment. Where possible, it is preferred that representative soil vapour data is collected to assess vapour risk. In some circumstances when soil vapour data cannot be collected (e.g., the presence of shallow groundwater), modelling using groundwater data can be used to assess vapour intrusion risks.

EPA expect that the environmental audit report includes (but is not limited to) the following:

* the extent of support from suitably qualified professionals (‘the auditors expert support’) used to inform the environmental auditor’s opinion;
* information on how the assessment has addressed risks to all relevant on and/or off-site receptors (which includes existing and/or proposed development scenarios e.g., slab on ground or proposed basement levels);
* building design considerations if applicable;
* the environmental auditor’s opinion as to the adequacy of the soil vapour assessment or vapour modelling completed by the suitably qualified professionals; and
* multiple lines of evidence used to assess vapour intrusion risks from soil vapour.

Schedule B1 of the NEPM provides Tier 1 risk assessment criteria (soil, groundwater, and soil vapour HSLs and interim soil vapour HILs) for the assessment of petroleum hydrocarbons and select volatile chlorinated compounds. The HSLs have several limitations and assumptions, including:

* soil and groundwater HSLs have limited applicability if a non-aqueous phase liquid (NAPL) is present or inferred within saturated or unsaturated zones;
* soil and groundwater are correctly sampled to prevent sample loss via volatilization (e.g., soils sampled in accordance with Australian Standard AS4482.2-1999 and appropriate groundwater sampling methodologies in accordance with EPA publication 669), and that samples are representative of the site conditions;
* soil source thicknesses are assumed to be ~2 m; and
* the petroleum source has a typical composition.

An understanding of the limitations of the NEPM HILs and HSLs is required to determine if they can be applied at a site as a preliminary screening tool. Refer to the HSL application documentation for further information (Friebel & Nadebaum, 2011b and 2011d).

It can be difficult to collect and analyse site representative data from volatile compounds. Soil data alone is not considered to be a sufficiently reliable line of evidence about whether or not a vapour risk is present. Schedule B2, section 9.2.4 of the NEPM emphasises that multiple lines of evidence are required to assess any vapour risks. Multiple lines of evidence can include:

* detailed site history;
* identification of, and sampling from any preferential pathways (e.g., service lines such as sewer/water);
* soil vapour and groundwater concentrations;
* field observations, such as photoionisation detector/ flame ionisation detector (PID/FID) readings;
* data collected from advanced site characterisation methods (e.g., membrane interface probes (MIP), laser induced fluorescence (LIF), hydraulic profiling tools, etc);
* indoor air concentrations (providing that confounding indoor air sources can be identified and accounted for); and
* building construction details[[15]](#footnote-15) and building operating conditions, etc.

### Ensuring ongoing vapour management

Soil vapour sampling is often undertaken on a site cleared of structures and ready for a proposed future development. A limitation with this approach is that the results may under-estimate the vapour concentrations which may be present post-development. For example, building slabs can have a significant impact on the condition of soil under the slab, which in turn can impact vapour transport and vapour intrusion (e.g., building slabs impact oxygen ingress, soil moisture conditions, etc). EPA expect that the environmental auditor document within the audit report and make recommendations as appropriate for the future management of proposed buildings when there are vapour sources remaining in-situ (e.g., remnant contaminated soils or groundwater).

Notwithstanding any vapour intrusion mitigation measures, if there is a potential on-going public health risk on and/or off site, EPA should be contacted for advice. Where off-site vapour intrusion risks are identified, notification of relevant parties and duties under the EP Act 2017 will also apply to the duty holder.

### Considerations when assessing basements

Vapour risks to basements are expected to be assessed if the current development plans include a basement, or where there is not yet a proposed development, to assess the likelihood for future basements to be constructed. When volatile vapour extends from the site to off-site areas, the risk assessment should include assessment of vapour risks to existing basements and assess the likelihood for basements in that area. The environmental auditor can assess likelihood by a review of proposed development plans, planning overlays or discuss directly with the statutory planning team at the responsible authority. When addressing vapour risks from basements, the environmental auditor should ensure the conceptual site model appropriately reflects pathways for vapour risk to all receptors which may include underground services, risks to construction and maintenance workers as well as building occupants.

The type of basement to consider would depend on the development plans and the current types of basements in the vicinity of the area, as well as the likely planning approval for such types of basement scenarios. The environmental auditor should clearly document any assumptions made and include lines of evidence that these are based on in the audit report.

## Underground storage tanks

Underground storage tanks (USTs) are a common source of soil and groundwater contamination.

Where USTs on a site are not in use, they should, where practicable, be removed and in situations where they cannot be removed, be appropriately decommissioned.

In determining whether contamination of soil or groundwater is likely to have occurred, environmental auditors should consider:

* whether there is any evidence of product loss;
* the nature of the product and its transport properties;
* the depth to groundwater and the permeability of the unsaturated zone; and
* the potential for preferential transport pathways.

In most circumstances, assessment of soil and groundwater quality is likely to be required. This is particularly important where good information about the significance and extent of any leak is hard to obtain. For example, the presence of fractured rock can make it difficult to determine the extent of contamination in the unsaturated zone, including validation of any tank pit.

Where an environmental auditor concludes that groundwater is unlikely to be contaminated and therefore does not require direct investigation, clear justification should be included in the audit report.

The presence of any USTs associated pipework or other equipment should be noted in an audit report.

## Non-aqueous phase liquids

Where NAPL is present in soil or groundwater, this must be cleaned up so far as reasonably practicable, and the NAPL source needs to be removed or controlled (refer to regulation 15 of the Regulations 2021 for further information).

There is the potential for NAPL to exist where one or more of the following occurs:

* a ‘free phase’ or hydrocarbon sheen is observed within the water column of groundwater monitoring wells;
* dissolved phase concentrations in groundwater or soil infer the presence of NAPL; and/or
* NAPL is known (or likely) to be present within the unsaturated soil or rock profile or aquifer matrix, based on soil observations and/or laboratory results.

Regulation 10(3) of the Regulations 2021 defines that NAPL is prescribed notifiable contamination in groundwater, surface water or an aquifer. A person in management or control of land must notify the Authority as soon as practicable after the person becomes aware of the notifiable contamination, or reasonably should have become aware, in accordance with section 40 of the EP Act 2017. Further information is provided in the [Guide to the duty to notify of contaminated land (publication 2008.2)](https://www.epa.vic.gov.au/about-epa/publications/2008-2) The environmental auditor’s role is described in [Environmental auditor guidelines for appointment and conduct (publication 865).](https://www.epa.vic.gov.au/about-epa/publications/865-12)

Where NAPL is present, an environmental auditor will need to:

* provide an opinion regarding the practicability of removal (if not done already) and the risks of harm to human health or the environment posed by the NAPL to the environmental values of the groundwater in the audit report; and
* if NAPL remains in situ, make recommendations on management measures to prevent risks of harm to human health or the environment.

## Landfill buffer provisions

[Best Practice Environmental Management - Siting design, operation and rehabilitation of landfills (publication 788)](https://www.epa.vic.gov.au/about-epa/publications/788-3) specifies buffer distances around landfills within which developments are subject to additional assessment requirements (refer to section 5.1.5 for operating landfills and sections 8.2.1 and 8.2.2 for closed landfills). Where a site falls within a landfill buffer, it is expected that the audit will address these additional assessment requirements.

[Assessing planning proposals within a buffer of a landfill (publication 1642)](https://www.epa.vic.gov.au/about-epa/publications/1642) sets out a risk-based approach to assessing planning proposals within the buffer of a landfill. Consideration needs to be given to the proximity of the proposal to the landfill and whether that landfill is closed or operating. Landfill buffer provisions should also consider former quarries and clay-holes which were backfilled.

## Other considerations

Other considerations may include:

* acid sulfate and potentially acid sulfate soils;
* occupational health and safety; and
* perfluoroalkyl and polyfluoroalkyl substances (PFAS) and emerging contaminants.

Information on how to assess and manage acid sulfate soil can be found in the Department of Sustainability and Environment Victorian Best Practice Guideline on Assessing and Managing Coastal Acid Sulfate Soils, October 2010. Refer to the Regulations 2021 for further information if any acid sulfate soil is proposed for disposal. Receiving acid sulfate soil for treatment is a scheduled activity (LO8), which has a waste code and is pre-classified as a priority waste. There is also a government initiative website <https://www.waterquality.gov.au/issues/acid-sulfate-soils> that provides information on impacts of acid sulfate soil on water quality.

Information on occupational health and safety can be found at WorkSafe Victoria <https://www.worksafe.vic.gov.au/>

Information on emerging contaminants can be found in published papers and for PFAS refer to the PFAS National Environmental Management Plan (PFAS NEMP).

# Community/stakeholder involvement

Stakeholders with a potential interest in the audit may include neighbouring landholders, resource managers, the requestor’s customers, Local Government, EPA, and other statutory authorities.

In consultation with the requestor, the environmental auditor should determine the appropriate level of involvement, if any, of stakeholders.

Where other statutory authorities are involved, ensure that there is a clear understanding of relevant roles, responsibilities and legislative obligations underpinning decision making that may impact the audit outcome, e.g., food safety, occupational health and safety factors.

Where community interest is high, or the audit is being conducted as part of a better environment plan, the environmental auditor should consider inviting the community and local Council to have input into the audit scope and/or to observe site inspections.

The nature and extent of community involvement should be determined at the start of the audit program and outlined in the audit report.

A person in management or control of contaminated land (which includes groundwater) has a duty to minimise risks of harm to human health and the environment from contaminated land so far as reasonably practicable[[16]](#footnote-16). In certain circumstances, that duty may require the person to share information on the presence of contamination, for example, where doing so helps to reduce the risks of harm associated from that contamination. This includes sharing information with persons that may be affected by contaminated land or become in control of contaminated land. The purpose of sharing such information is to ensure those affected understand the risks associated with the land and are aware of the management actions needed in relation to the contamination present. Refer to EPA webpage <https://www.epa.vic.gov.au/for-business/new-laws-and-your-business/manage-contaminated-land/about-contamination/understanding-your-contaminated-land-duties> for further information.

# The environmental audit statement and report

## General

Audit reports should be concise and informative, with information displayed in a format that is easy to interpret and understand.

The environmental auditor must ensure that any audit report that they complete is an accurate record of sound observations and logical deductions and reflects the current condition of the site area/activity at the time of issue.

The audit report must be signed by the environmental auditor in their own name (either manually or electronically). It is not sufficient for the environmental auditor to sign an audit report on behalf of any other person or a company.

All audit reports must be lodged with EPA. Environmental audit statements are public documents, details of which will be available on the Public Register on EPA’s website. Information on how to access audit reports is available on EPA’s website. Alternatively, you may contact the Environmental Audit Unit to request copies of published environmental audit statements and audit reports if you are having difficulty accessing this information online.

## Contents of an environmental audit statement

On completion of an audit, the environmental auditor must prepare an environmental audit statement accompanied by an environmental audit report[[17]](#footnote-17).

Section 211 of the EP Act 2017 specifies that the environmental audit statement must:

1. specify the scope of the environmental audit, including-
2. the site or activity in respect of which the audit was conducted; and
3. the use or proposed use for which the site is being audited (if applicable); and
4. the elements of the environment in respect of which the audit assessed; and
5. the standards and reference documents considered in the audit; and
6. any assumptions made by the environmental auditor during the audit or any limitations on the audit; and
7. any exclusions from the audit and the rationale for these exclusions; and
8. if the environmental audit assessed the use or proposed use of a site in relation to the risk of harm to human health or the environment from contaminated land, waste, or pollution, the environmental auditor’s assessment to state that-
9. the site is suitable for the purposes specified in the environmental audit statement; or
10. the site is suitable for the purposes specified in the environmental audit statement if the recommendations made in the environmental audit statement are complied with; or
11. the site is not suitable for the purposes specified in the environmental audit statement at the time the environmental audit statement was prepared; and
12. specify the results of the environmental audit and any recommendations; and
13. state the name of the person who engaged the environmental auditor to conduct the audit; and
14. be signed by the environmental auditor; and
15. state the environmental auditor’s contact details; and
16. include any other prescribed matter.

Where an environmental auditor states that the audit site is suitable for a specific land use, the land use description should be consistent with the land use categories in the ERS, and any land use description presented in the Victorian Planning Provisions.

An environmental audit statement form [(document F1032: Environmental audit statement)](https://www.epa.vic.gov.au/about-epa/publications/f1032) can be downloaded from EPA’s website.

As part of the planning process, if an environmental auditor becomes aware of verification of environmental audit statement compliance, which, in the opinion of the environmental auditor is inadequate, incomplete, misguided, invalid or misrepresents an environmental audit statement recommendation, they should immediately notify EPA via [environmental.audit@epa.vic.gov.au](mailto:environmental.audit@epa.vic.gov.au).

## Recommendations

Environmental audit statement recommendations are prepared by an environmental auditor to recommend measures to manage the risk of harm to human health and the environment from contaminated land, waste, pollution, or any activity and make recommendations to manage contaminated land, waste, pollution, or activity. The recommendations may consist of measures to:

* manage residual risks posed to current or future site users or the environment after site clean up (e.g., requiring installation of a vapour mitigation system or physical barriers);
* address any non-compliances (e.g., with operating landfill licence conditions); or
* identify opportunities to reduce the risk of harm to human health or the environment resulting from waste, pollution or the activity being audited.

When preparing a recommendation, the environmental auditor must ensure that the recommended measures and management is reasonable, practicable and verifiable.

When making recommendations on measures and management of contaminated land, the environmental auditor should describe measures that are required to prevent exposure of site occupiers and/or users to residual contaminated land at a site. Refer to [Contaminated land: Understanding section 35 of the Environment Protection Act 2017 (publication 1940)](https://www.epa.vic.gov.au/about-epa/publications/1940) as to when land is ‘contaminated’.

The environmental auditor should consider Part 2.3 of the EP Act 2017 - Principles of environment protection, when formulating environmental audit statement recommendations. The hierarchy of controls can help the environmental auditor to focus and prioritise the recommendations.

Chart, funnel chart

Description automatically generated

Recommendations should be prioritised and consistent with the outcomes of any risk assessment undertaken for the purpose of the audit, where applicable. The environmental auditor can also consider compliance with any site development stages when making recommendations on the suitability of land use. A response to the audit recommendations from the requestor may also be included within the report.

All audit recommendations should be:

* clear, practicable and easily understood;
* sufficiently specific for the reader to clearly understand the requirements for management of the site, element/s or activity;
* clear on the nature of all risks of harm to human health or the environment which require management to render the site suitable for the nominated use (where applicable);
* consistent with the outcomes of any risk assessment undertaken for the purpose of the audit;
* allocated a priority according to risk;
* clear on who will address the recommendation (e.g., person in management or control of the land); and
* clearly presented including the priorities for each recommendation.

An environmental auditor cannot make recommendations for EPA to issue a notice or order (e.g., an environmental action notice or site management order). An environmental auditor cannot make a decision on whether a permission is required. However, EPA encourages auditors to consider whether they need to discuss their recommendations with either EPA. Where an environmental audit is a requirement of a statutory notice, the environmental auditor should discuss the proposed recommendations with the authorised officer who issued the notice.

Environmental auditors also cannot make recommendations for the use of planning instruments, such as s173 agreements, as that is a planning decision. Recommendations made by an environmental auditor may be given effect through planning mechanisms (e.g., section 173 agreement or permit conditions). The environmental auditor should discuss their recommendations and their suitability with the responsible authority’s statutory planning team before issuing the audit report. EPA expects that the environmental auditor keeps a record of any conversations had with the relevant statutory authority.

EPA considers that in most scenarios it is unlikely suitable for recommendations to be placed on sites being considered for low density sensitive land use (e.g., residential or childcare facilities). It is suggested that EPA are consulted where recommendations are being considered for environmental audits being conducted on low density sensitive land uses.

Refer to Appendix D for further information when completing an environmental audit for the suitability of land use. This appendix also includes examples of recommendations for a selection of common scenarios for audits to assess the suitability of land use, with an intent to promote consistency.

### Compliance with recommendations

The primary responsibility for ensuring compliance with any recommendation or restriction incorporated in an environmental audit statement rests with person(s) in management or control of the site.

A person in management or control of site has a duty under the Environment Protection Act (2017) to manage ongoing risks from potential contamination from the site. This includes acting upon recommendation made by an environmental auditor. Examples include undertaking ongoing groundwater monitoring or installing protective barriers. Refer to [Guide to the duty to manage contaminated land (publication 1977.1)](https://www.epa.vic.gov.au/about-epa/publications/1977-1) for more information.

An EPA authorised officer may choose to issue a notice or order to the person in management or control of the site following the completion of an environmental audit.

### General considerations when preparing environmental audit statements

Environmental audit statement recommendations should balance the need to achieve the outcome and the need to provide specific guidance to decision-makers on the measures necessary to manage the relevant risks of harm to human health or the environment from contaminated land, waste, pollution, or any activity or so that the site is suitable for the purposes specified in the statement. The environmental auditor should ensure that recommendations are written in a manner which is easy to understand for parties who may not have a strong technical background. As a general rule, statement recommendations require the word ‘must’ to be used. A recommendation is a requirement that must be followed, so the word ‘should' is not appropriate. The word ‘should’ is more appropriately used in relation to points included in ‘other related information’ (discussed in Appendix D). Where practicable, environmental audit statement recommendations should state:

* the intention of the recommendation;
* the measurable outcome to be achieved; and
* suggested measures to achieve the nominated outcome.

An environmental auditor should also consider other aspects and impacts associated with the proposed recommendation, including:

**Clarity of purpose** – an environmental audit statement recommendation must be unambiguous.

**Branding** – environmental audit statement recommendations should not include specific and/or proprietary equipment and/or materials; rather, the performance requirements for a specific preventative exposure measure should be specified.[[18]](#footnote-18)

**Communication** – environmental audit statement recommendations should be formulated with both technical and non-technical readers in mind and must be sufficiently clear to provide useful information to the person in management or control of the audit site, planning and responsible authorities, other planners, EPA, and any other person who may read the environmental audit statement. Highly technical terms in recommendations should be avoided.

**Longevity of environmental audit statement recommendations** – where ongoing recommendations are required, environmental auditors should consider (amongst other things):

* if the risk of harm to human health or the environment will improve or disappear in the future;
* the annual compliance cost. Consider the impact of high annual costs, compared to other maintenance or remediation costs, on the likelihood of compliance; or
* access to proposed sampling points and other relevant locations (e.g., groundwater monitoring wells or production wells).

**Consistency with other requirements:** *Rights of owner/occupier*, section 8(1)(d) of the *Water Act 1989* states that a person has the right to take water for their stock and domestic use from a waterway or a bore to which that person has a specific form of access. Therefore, an environmental audit statement recommendation that restricts the use of groundwater for these purposes is not generally appropriate. However, it is appropriate[[19]](#footnote-19) for an environmental audit statement to:

* identify uses for which the groundwater is suitable or not suitable; and
* require that information about the condition of groundwater resulting in contaminated land be provided to affected parties including the relevant water authority.

Where the audit identifies that the condition of groundwater poses a risk of harm to human health or the environment, the environmental auditor should include a figure outlining the extent of any remaining contamination in groundwater after clean up so far as reasonably practicable has been achieved. The environmental auditor should make recommendations for how to manage any residual risks to human health or the environment from the remaining contamination and which may assist the person in management or control of the land to comply with the duty to manage contaminated land[[20]](#footnote-20). Refer to [Guidance for the clean up and management of contaminated groundwater (publication 2001)](https://www.epa.vic.gov.au/about-epa/publications/2001) for further information.

**Risk of harm to human health or the environment (risks of harm)** – any risks of harm to be managed should be clearly defined and may need to be managed using a document attached to the environmental audit statement, e.g., management plan/s.

**Requirement for further assessment** – it is not appropriate to have environmental audit statement recommendations that require further assessment and/or clean up of the audit site to make the site suitable for the proposed use for a suitability of land use audit.

**Site-specific objectives met before requiring on-going monitoring** – monitoring to confirm environmental audit outcomes is typically confined to groundwater, ground gas, and vapour issues. If ongoing monitoring is required, the environmental audit statement should clearly define the scope (location/frequency of monitoring, analytical suite) and the data-reporting requirements (e.g., submitted to site owner, occupier, developer, planning authority and/or EPA).

**Environmental audit statements with no recommendations** –where recommendations are not required on an environmental audit statement, the environmental auditor should indicate this by stating “None” in the required field. An environmental audit statement without recommendations would only be issued when the audit site is deemed suitable in its current state for all land uses.

### Management plans

While management plans should not be used in place of clean up, one or several site management plans may be required in an environmental audit statement. These can include:

* occupational health and safety management plans;
* environmental management plans;
* gas/vapour management plans;
* odour management plans;
* construction management plans; and
* air quality monitoring plans.

The above plans may be separate or combined into a single document and the environmental auditor should reference relevant published documents and/or guidelines that have been used.

Management plans should be clear and concise to ensure the person implementing the plan can understand what is required. Plans should state what is required to be managed, who is required to manage it, how the plan is to be implemented, and include details on how it should be reviewed and updated.

For sites that are proposed to be sub-divided or for medium/high density residential land use, environmental auditors should consider the suitability of any recommendations of management plans to ensure that there is centralised management (e.g., an owner’s corporation) for any ongoing site management obligations (see section D5, Appendix D for further information).

Management plans for the audit site should be prepared prior to completion of the environmental audit and attached to the environmental audit statement. In circumstances where plans cannot be prepared prior to the issue of the environmental audit statement, EPA may accept recommendations that require the development of plan/s and note the specific elements that are required to be included in the required plan/s.

Persons in management or control of a site with a management plan have a duty to implement the management plan in accordance with the recommendations made by the environmental auditor.

Model statement recommendations regarding management plans are included in Appendix D.

## Statutory actions that can be applied by EPA

A number of statutory actions may be considered by EPA for a premises that has been, or may be, subject to an audit, including remedial notices and site management orders (SMO). The issue of a notice or order is a discretionary decision on the part of EPA or an authorised officer and must be based on the applicable grounds for the notice or order. EPA cannot routinely issue a notice or order for predetermined circumstances – a decision to issue must always consider the circumstances of the relevant site.

An SMO is a statutory tool outlined in section 275 of the EP Act 2017 that allows EPA as the Authority to establish long-term controls to ensure safe management of sites that would otherwise pose an ongoing risk of harm to human health and the environment from contaminated land, pollution, or waste.

An SMO may be issued to the current owner or occupier of a site, or where the site is Crown Land, the person that has the management or control of the land at that time.

EPA expects environmental auditors to recommend controls as appropriate to ensure safe management of the audit site, and state if such controls are expected to be long-term, however such recommendations should not include the issue of remedial notices or SMOs by the EPA, as environmental auditors do not have the power to compel or direct the EPA to issue such notices.

## Contents of an environmental audit report

An environmental audit report should clearly state the environmental auditor’s opinion as to the risks posed by contaminated land, waste, pollution, or an activity, to the environmental values of the element/s within the scope of the audit and provide justification for that opinion. The results of an audit report are the findings, conclusions, and any recommendations. The process for arriving at these results, and any opinions stated, should be well documented and referenced within the audit report.

The audit report should also contain the following information:

* the purpose and scope of the audit, including the audit criteria and an explanation of how the scope was defined;
* the objectives of the audit;
* when the audit was conducted;
* audit methodology, including:
* the documentation reviewed;
* site visits;
* data collection and evaluation;
* the manner and extent of the involvement of expert support team members in the conduct of the audit;
* risk assessment approach;
* evidence used to assess the audit criteria;
* a review of all relevant information collected by the audit;
* the findings of the audit;
* the reasons for the findings and any recommendations in the environmental audit statement;
* conclusions[[21]](#footnote-21);
* any exclusions to the audit (for example elements and/or environmental values);
* a copy of the authorisation for the relevant person to request the audit (but only if the person making the request is not the owner or occupier of the site); and
* any other prescribed matter.

## Limitations

The environmental auditor should not disclaim responsibility for the findings and outcome of the audit report or environmental audit statement on the basis that they have relied on the work of others (such as previous site investigations completed at the site or neighbouring properties). It is the role of the environmental auditor to confirm that the data they are relying on is reliable.

An audit report or environmental audit statement must be capable of being relied on not only by the person who engaged the environmental auditor to issue the environmental audit statement and audit report, but also by EPA, planning authorities and by responsible authorities.

The environmental audit statement and audit report may include a section that provides information about the uncertainties associated with the environmental audit process.

## Mandatory copies of audit report and environmental audit statement to be provided

Environmental auditors must provide a copy of the environmental audit statement and environmental audit report to the Authority within five business days of completion[[22]](#footnote-22). The audit report and environmental audit statement must be provided via the EPA portal on EPA’s website, in a digital PDF format, in accordance with [Environmental auditor guidelines - Provision of statements and reports for environmental audits and preliminary risk screen assessments (publication 2022).](https://www.epa.vic.gov.au/about-epa/publications/2022) Physical copies of audit reports and environmental audit statements do not need to be provided.

The environmental audit statement and audit report must also be provided to the relevant planning authority and the responsible authority within the meaning of the Planning and Environment Act 1987 if:

* the audit relates to the risk of harm to human health or the environment from contaminated land or potentially contaminated land; or
* required by the Authority.

All audit reports are considered as part of the environmental audit system Quality Assurance (QA) program. The QA program is detailed in [Environmental auditor guidelines for appointment and conduct (publication 865).](https://www.epa.vic.gov.au/about-epa/publications/865-12)

## Reporting where audit program includes additional aspects other than environmental

There may be instances where an audit is conducted as part of a larger program examining issues such as occupational health and safety or financial due diligence. The environmental audit statement (and accompanying audit report) must be identifiable as a separate document and be signed by the environmental auditor in their capacity as an environmental auditor appointed pursuant to Part 8.3 of the EP Act 2017.

As a separate document, the environmental audit statement (and accompanying audit report) may then be included as part of a larger report.

# Amending, withdrawing, and issuing an environmental audit statement

## Amendments

An environmental auditor may amend an environmental audit statement, to correct:

1. any clerical mistake or unintentional error or omission; or
2. any figure that is miscalculated; or
3. any misdescription of any person, thing, or property[[23]](#footnote-23).

In each of the above cases there should be no substantive change to the outcome of the audit.

## Clerical errors

Minor amendments may be made to an environmental audit statement to correct a clerical mistake or similar unintentional error or omission (for example, typographical mistakes). The environmental auditor should make the correction directly on each copy of the environmental audit statement and must initial and date each change (whether manually or electronically).

In each of the above cases there should be no substantive change to the findings and recommendations of the audit.

The environmental auditor must notify EPA, the planning authority, and the responsible authority (if the audit relates to a risk of harm to human health or the environmental from contaminated land or potentially contaminated land), within five business days of amending any environmental audit statement.

EPA’s portal currently does not allow re-submission of an audit report once the original report has been submitted. All environmental audit statements and audit reports requiring amendment and re-submission will need to be submitted to the Environmental Audit Unit inbox via e-mail ([environmental.audit@epa.vic.gov.au](mailto:environmental.audit@epa.vic.gov.au)) or a suitably secure file transfer service.

## Withdrawal

An environmental auditor may withdraw an environmental audit statement where the environmental auditor believes the environmental audit statement is incorrect[[24]](#footnote-24). Examples of this may include circumstances where:

* the environmental auditor becomes aware, following completion of the audit, of additional information regarding the condition of the site, element of the environment or activity being audited at the time of issue of the environmental audit statement;
* information indicates that the environmental audit statement did not adequately reflect the condition of the site, element of the environment or activity being audited at the time of issue of the environmental audit statement; and/or
* additional recommendations are required to ensure the risk of harm to human health or the environment from contaminated land is acceptable for the proposed site use.

Issue of an incorrect environmental audit statement may be considered by EPA when reviewing an environmental auditor’s appointment in accordance with [Environmental auditor guidelines for appointment and conduct (publication 865).](https://www.epa.vic.gov.au/about-epa/publications/865-12) In addition, it is an offence to issue a misleading environmental audit statement or environmental audit report under the EP Act 2017[[25]](#footnote-25).

If an environmental auditor withdraws an environmental audit statement, the environmental auditor must notify the EPA within five business days of withdrawing the environmental audit statement. The environmental auditor must also notify the relevant planning authority and the responsible authority within the meaning of the Planning and Environment Act 1987 within five business days if:

* the audit relates to the risk of harm to human health, or the environment from contaminated land or potentially contaminated land; or
* required by the Authority.

The environmental auditor should also:

* notify the requestor;
* recover all copies of the environmental audit statement and the associated audit report, to the extent practicable, with the exception of any copies held by EPA (EPA reserves the right to retain copies of any withdrawn environmental audit statement and associated audit report); and
* to the maximum extent practicable, advise parties that may have relied on the environmental audit statement of its withdrawal.

Where an environmental auditor withdraws an environmental audit statement, the environmental auditor may:

1. conduct another environmental audit and issue a new environmental audit statement; or
2. issue a new environmental audit statement.[[26]](#footnote-26)

Any environmental audit statement that is subsequently issued, must be dated at the time the new environmental audit statement is issued. The environmental auditor must be satisfied that the new environmental audit statement reflects the current condition of the site, element of the environment or activity being audited at the time of issue. In some cases, this may require further work on the part of the environmental auditor.

If an environmental auditor has issued a new environmental audit statement, the environmental auditor must within 5 business days of amending or issuing it, send a copy of the amended or new environmental audit statement to:

1. the Authority; and
2. the relevant planning authority within the meaning of the Planning and Environment Act 1987; and
3. the responsible authority within the meaning of the Planning and Environment Act 1987.[[27]](#footnote-27)

If an environmental auditor is for any reason unable to perform the functions and duties of an environmental auditor during the environmental auditor’s appointment, the Authority may withdraw the environmental audit statement issued by the environmental auditor that is incorrect.[[28]](#footnote-28)

If the Authority withdraws an incorrect environmental audit statement, the Authority must, within 5 business days of the withdrawal, notify the relevant planning authority and the responsible authority within the meaning of the Planning and Environment Act 1987 of the withdrawal.[[29]](#footnote-29)

If the relevant planning authority and the responsible authority have not been sent a copy of the environmental audit statement, they do not need to be notified of its withdrawal.[[30]](#footnote-30)

## Changed conditions

An environmental auditor is not required to withdraw or amend an environmental audit statement where the condition of the site changes following completion of the audit. For example, such changes may occur because of works or waste disposal at the site.

An environmental auditor may be requested to undertake a second audit to account for changed conditions at a site. Such an audit is regarded as a new audit, and the environmental auditor must comply with all applicable requirements.

## Terminating an environmental audit

Where an environmental auditor has been engaged to undertake an audit and subsequently:

* is requested to terminate the audit; or
* decides not to proceed with the audit (e.g., because the person who requested the audit has refused to provide information required by the environmental auditor).

The environmental auditor should advise the Environmental Audit Unit through the EPA portal on EPA’s website of the:

* details of the contaminated land, waste, pollution, or activity;
* date on which the audit was terminated; and
* reasons for termination of the audit.

EPA may request further information from the environmental auditor, the requestor, or any other person regarding the reasons for termination of the audit.

# Contact details and further information

For further information please contact:

EPA’s Environmental Audit Unit  
[environmental.audit@epa.vic.gov.au](mailto:environmental.audit@epa.vic.gov.au)

EPA Customer Service  
Level 3, 200 Victoria Street  
Carlton, Victoria 3053

1300 EPA VIC  
1300 372 842

EPA website  
[www.epa.vic.gov.au](http://www.epa.vic.gov.au)

# Appendix A – Documents to be used in environmental auditing

In carrying out any function of an environmental auditor under the [EP Act 2017](https://www.legislation.vic.gov.au/in-force/acts/environment-protection-act-2017/005) or any other Act, the environmental auditor must have regard to:

1. any guidelines issued by the Authority under section 203 of the EP Act 2017; and
2. any relevant environment reference standard made under Part 5.2; and
3. any relevant compliance code made under Part 5.3; and
4. any prescribed matter.

Below is a list (not exhaustive) of published guidelines and standards relevant to environmental auditing that the environmental auditor should refer to. EPA expects environmental auditors to check [EPA’s webpage](https://www.epa.vic.gov.au/about-epa/publications) for updated information and guidelines.

**Guidelines issued by the Authority under section 203 of the EP Act 2017**

[Environmental auditor guidelines for appointment and conduct (publication 865)](https://www.epa.vic.gov.au/about-epa/publications/865-12)

[Environmental auditor guidelines – Provision of environmental audit statements and reports for environmental audits and preliminary risk screen assessments (publication 2022)](https://www.epa.vic.gov.au/about-epa/publications/2022)

[Guidelines for conducting environmental audits (publication 2041)](https://www.epa.vic.gov.au/about-epa/publications/2041-environmental-audits-guideline), this guideline

[Guideline for conducting preliminary risk screen assessments (publication 2021)](https://www.epa.vic.gov.au/about-epa/publications/2021)

[Guideline on clean up and management of contaminated groundwater (publication 2001)](https://www.epa.vic.gov.au/about-epa/publications/2001)

**Subordinate legislation**

[Environment Protection Regulations, 2021 (Regulations 2021)](https://www.legislation.vic.gov.au/in-force/statutory-rules/environment-protection-regulations-2021/006)

[Environment Reference Standard, 2021 (ERS 2021)](http://www.gazette.vic.gov.au/gazette/Gazettes2021/GG2021S245.pdf)

**National Environment Protection Measures**

[National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999, as amended from time to time](http://nepc.gov.au/nepms/assessment-site-contamination)

[National Environment Protection Measure (Ambient air quality) 1998, as amended from time to time](http://www.nepc.gov.au/nepms/ambient-air-quality)

**Policies**

[EPA Victoria Contaminated Land Policy (publication 1915)](https://www.epa.vic.gov.au/about-epa/publications/1915)

**EPA Victoria Publications**

[Arsenic in mine tailings, sand, and rock (IWRG431)](https://www.epa.vic.gov.au/about-epa/publications/iwrg431)

[Assessing planning proposals within a buffer of a landfill (publication 1642)](https://www.epa.vic.gov.au/about-epa/publications/1642)

[Background Levels: Methodology guidance (publication 2033](https://www.epa.vic.gov.au/about-epa/publications/2033))

[Closed landfill guidelines (publication 1490)](https://www.epa.vic.gov.au/about-epa/publications/1490-1)

[Contaminated land: understanding section 35 of the Environment Protection Act (publication 1940)](https://www.epa.vic.gov.au/about-epa/publications/1940)

[Department of Sustainability Victorian Best Practice Guideline on Assessing and Managing Coastal Acid Sulfate Soils, October 2010](https://www.marineandcoasts.vic.gov.au/__data/assets/pdf_file/0016/31237/CASS-BPMG-2010.pdf)

Government Initiative website <https://www.waterquality.gov.au/issues/acid-sulfate-soils>

[Groundwater sampling guidelines (publication 669)](https://www.epa.vic.gov.au/about-epa/publications/669)

[Guide to the duty to manage contaminated land (publication 1977.1)](https://www.epa.vic.gov.au/about-epa/publications/1977-1)

[Guide to the duty to notify of contaminated land (publication 2008.2)](https://www.epa.vic.gov.au/about-epa/publications/2008-2)

[Guide to the Environment Reference Standard (publication 1992)](https://www.epa.vic.gov.au/about-epa/publications/1992)

[Hydrogeological assessment (groundwater quality) guidelines (publication 668)](https://www.epa.vic.gov.au/about-epa/publications/668)

[Landfill gas fugitive emissions monitoring guideline (publication 1684)](https://www.epa.vic.gov.au/about-epa/publications/1684)

[Landfill licencing (publication 1323)](https://www.epa.vic.gov.au/about-epa/publications/1323-3)

Siting, design, operation and rehabilitation of landfills (publication 788.3)

[Using SEPPs and WMPs in the new environment protection framework (publication 1994)](https://www.epa.vic.gov.au/about-epa/publications/1994)

**Other Published Guidelines and Standards**

AS 4482.1 Guide to the sampling and investigation of potentially contaminated soil, Part 1: Non‑volatile and semi‑volatile compounds

AS 4482.2 Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile substances

[CRC Care National Remediation Framework, 2019](https://www.crccare.com/knowledge-sharing/national-remediation-framework)

**Contaminated land and planning**

[Department of Sustainability and Environment ‘writing planning permits’, June 2003](https://www.planning.vic.gov.au/__data/assets/pdf_file/0017/102149/Writing_Planning_Permits.pdf)

[Department of Energy, Environment and Climate Action, Contaminated Land and Planning Planners Tools Kit](https://www.planning.vic.gov.au/guides-and-resources/guides/all-guides/contaminated-land-and-planning)

[Ministerial Direction No. 1 Potentially Contaminated Land, 27 August 2021](https://www.planning.vic.gov.au/__data/assets/pdf_file/0035/539909/Ministerial-Direction-No.-1-Potentially-contaminated-land.pdf)

[Planning Authority, Greenfield subdivision permits – a model approach, May 2020](https://vpa.vic.gov.au/greenfield-subdivision-permits/)

[Planning Practice Note 30 – Potentially Contaminated Land, July 2021](https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection/contaminated-land-and-planning)

[Victoria Planning Provisions (clause 13.04-1S) Contaminated land and potentially contaminated land](https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection/contaminated-land-and-planning)

[Victorian Planning Provisions (clause 45.03) Environmental Audit Overlay](https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection/contaminated-land-and-planning)

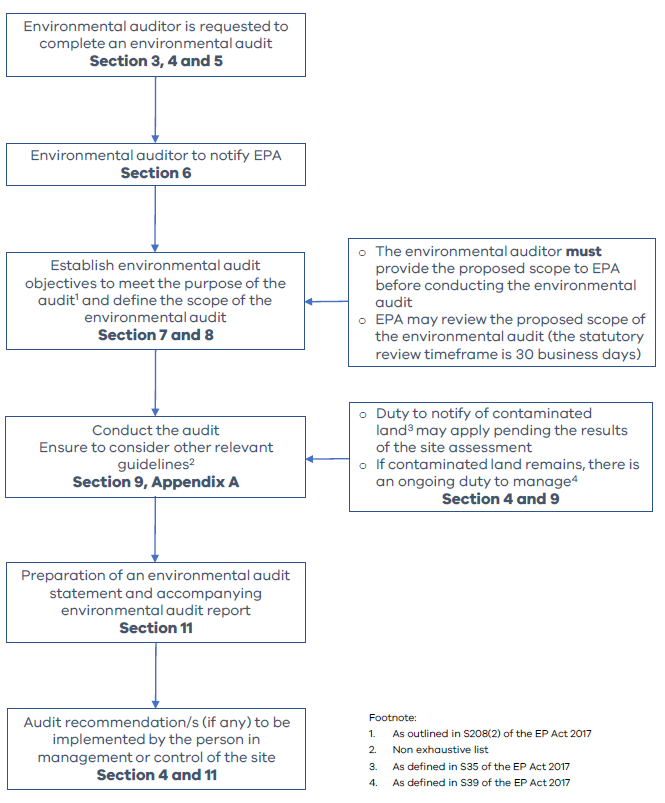
[Victorian Planning Provisions (clause 65.01) Decision Guidelines, Approval of an Application or Plan](https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection/contaminated-land-and-planning)

[Victorian Planning Provisions (clause 73.01) Meaning of Terms – General Terms (Potentially Contaminated Land)](https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection/contaminated-land-and-planning)

[Victorian Planning Provisions (clause 37.05-8) Docklands Zone](https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection/contaminated-land-and-planning)

[Victorian Planning Provisions (clause 37.07-6) Urban Growth Zone](https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection/contaminated-land-and-planning)

# Appendix B – Environmental audit process



# Appendix C – Guidelines for assessment of contaminated land

**Contents of a site assessment report**

Schedule A of the NEPM outlines the recommended process for assessment of site contamination. EPA expects that any report prepared for the purpose of issuing an environmental audit statement should follow the format and content described in the NEPM.

In addition, the following specific matters should be addressed in any site investigation report:

* consideration of the history of adjacent land uses, activities, industrial processes and storage of chemicals, presence of landfills;
* recording of any visual inspections of the site;
* details of the geology and hydrology of the area, natural water courses, including physical characteristics of the soil (for example, type, porosity, sorptivity, and variation of such characteristics with depth) and groundwater (depth, rate of flow, quality);
* details of the condition and location on the site of current and former buildings, infrastructure and services, machinery and equipment, chemical storage and waste disposal areas, and other activities;
* details of analytical detection limits (levels chosen and how derived); and
* criteria that have been applied and if any site-specific criteria have been determined, the methodology applied to determine these.

## C1 Scope of site investigation to support an audit

The sampling and analysis program should be designed based on all relevant background information about the audit site, including that nominated in the points above. It should also be designed with reference to relevant guidelines and standards as listed in Appendix A.

Analyses should be performed in laboratories with NATA accreditation for the analyses undertaken (where available for the target analyte) and have test reports bearing a NATA stamp of endorsement.

A diagram indicating the grid or location reference and sampling location labelling system for a site should be included with laboratory results in the site assessment report. In addition, the bore logs and other relevant field observations should be included in the report.

Analyses should include sufficient review of the result’s quality assurance and quality control. This is to ensure that values reported have a suitable level of accuracy, representativeness and precision.

If a detailed site history is not available or the site history is deficient, the investigation should include testing of samples for a broad screen of inorganic and organic substances. This should be undertaken in accordance with the list of typical analytes for contaminated site assessment presented in the NEPM (Schedule B2, Appendix A). Other analytes which could be reasonably suspected to be present at elevated concentrations based on regional information, information from similar sites, and changes to the state of knowledge should also be included.

If the past use of the site is known to have involved specific chemicals, these should be targeted in each sample taken in relevant areas. A screen for organic or inorganic contaminants should also be performed on representative samples.

If past use of the site indicates the possible presence of other environmental hazards such as asbestos, gases formed by the degradation of putrescible material, unexploded ordnance, radioactive substances or pathogens, an appropriate sampling or other investigation program should be implemented. The assessor should refer to EPA or other relevant government agencies for guidance on the assessment and management of these hazards.

## C2 Contamination of concern

The following information should be compiled for each contaminant of concern as part of the site assessment report:

* the toxicity, mobility, availability, potential for transformation, and likely fate of each contaminant;
* the form or species present (where applicable and relevant);
* physical characteristics;
* potential exposure pathways;
* any risk of harm to humans, plants, animals and structures at the site and off site; and
* any threat to the achievement or maintenance of any environmental value that applies at the audit site.

## C3 Assessing the significance of site investigation results

The site assessment should use the indicators and objectives set out in the ERS 2021.

Where contaminated land has been identified, evaluation of the risks of harm to human health or the environment can be carried out by:

* comparison with the human health or ecological investigation and screening levels;
* use of a site-specific risk assessment to evaluate effects on human health or the environment resulting from the condition of the audit site; and
* use of background level/s determined in accordance with the EP Act 2017.

These methods are set out in the ERS and NEPM and any risk assessment should be consistent with the approach described in Schedule B4 (Site Specific Health Risk Assessment) or Schedule B5 (Ecological Risk Assessment) of the NEPM.

Where the sources listed in Appendix A do not provide Health or Ecological Investigation or Screening Levels for specific contaminants, other published guideline values may be used to assist in evaluating risk. The derivation of such guidelines should be reviewed to determine whether the basis for such guidelines is similar to that used to derive the Health or Ecological Investigation or Screening Levels.

Evaluation of the risks of harm to human health or the environment presented by contaminated land should consider threats to all environmental values of the audit site. Evaluation of risk of harm to human health or the environment by only comparing with health-based investigation levels is unacceptable.

Use of waste classification criteria for the purpose of determining the suitability of the audit site for use or proposed use is unacceptable.

**Interpretation of site assessment data by the environmental auditor**

The environmental auditor would often be involved in the scoping of site assessment through reviewing of sampling and remediation plans. They may have additional input into the assessment and screening of results against ERS indicators and objectives following review of draft assessment reports. This often may not occur (e.g., where assessments have been completed prior to auditor engagement). In such circumstances, additional work may be required by the environmental auditor. This may include (but may not be limited to):

* screening available analytical results against ERS indicators and objectives consistent with the audit criteria;
* identification of potential limitations in the extent to which data can be relied upon to support the audit; and
* ensuring potential data gaps are addressed prior to completion of the audit.

# Appendix D – Guidance for recommendations on environmental audit statements for suitability of land use audits

This appendix is designed to assist environmental auditors to provide reasonable, practical, enforceable, and consistent recommendations on environmental audit statements when conducting an audit for suitability of land use. This guidance intends to provide consistency on the way recommendations are used by environmental auditors, benefiting site owners and the general community.

Environmental audit statement recommendations can help balance competing financial, social, and environmental factors in seeking safe and cost-effective redevelopment of potentially contaminated land. For example, on-site management of wastes may achieve the best environmental outcome, but the use of the site as a result may be restricted.

On rare occasions, an environmental audit statement may indicate that the audited site is not suitable for any use. This will act as a trigger to EPA and responsible or planning authorities for further action. The audit should contain enough information to enable the environmental auditor to form a conclusion about the site’s suitability for any use. The EPA does not consider it appropriate for an environmental auditor to issue an environmental audit statement under section 210 of the EP Act 2017:

* indicating that further investigation is required to determine the suitability of the site for certain uses; and
* recommending site clean up to render the site suitable for use or proposed use.

The expectation is that confirmation of site suitability recommendations on the environmental audit statement would not require further clean up for the requestor to meet their duty to manage contaminated land under the EP Act 2017, rather, that the assessment would reflect this deficiency (i.e., that the site is not suitable for the uses specified in the environmental audit statement at the time the environmental audit statement was prepared). However, where appropriate management of residual risks is required into the future, it may be reasonable to expect that a management plan would need to be prepared, or included in the environmental audit report, and referred to in the recommendation/s on the environmental audit statement. The environmental auditor should provide information on the existing and likely to exist environmental values for which the land (including groundwater) is not suitable.

## D1 Source-pathway-receptor model

Environmental audit statement recommendations are required to ensure preventative exposure measures are in place or will be constructed so that the site is suitable for the proposed use. The environmental auditor should consider the source-pathway-receptor model of risk analysis outlined in the table below.

| **Aspect** | **Comments** |
| --- | --- |
| Source | Contaminated land exists at the audit site. Further measures and management of risks of harm to human health or the environment in the form of clean up is either not warranted (based on proposed land use) or is not reasonably practicable.  Contaminated land represents a potential risk in an ‘unrestricted’ use scenario. |
| Pathway | One or more pathways exist for transport and/or migration of waste, a chemical substance, or a prescribed substance. |
| Receptor | Based on the proposed use of the audit site there is a potential for users and/or occupiers of the site to be exposed to the contaminated land. |

## D2 Responsibility for managing environmental audit statement recommendations

Table 4 of PPN30 outlines the respective responsibilities of the EPA and the planning or responsible authority in relation to the management of environmental audit statement recommendations, as set out below:

**Planning or responsible authority is responsible for:**

* implementing restrictions on permitted land uses; and
* giving effect to environmental audit statement recommendations that relate to the use and development of the land regulated by the planning scheme and apply prior to commencement of use, development, or occupancy.

**EPA is responsible for:**

* enforcement of obligations associated with the duty to manage and environmental audit recommendations that are listed in a mechanism under the EP Act 2017 which includes a SMO or a remedial notice. These typically relate to long term or ongoing monitoring or management.

This appendix outlines the responsibilities of environmental auditors and the person in management or control of the audit site in relation to environmental audit statement recommendations.

**Responsibilities of the environmental auditor:**

The environmental auditor is responsible for ensuring that recommendations are consistent with legislative requirements under the EP Act 2017 and are clear and practicable to implement.

Environmental auditors have no power to direct or compel EPA to issue a remedial notice or a SMO and should not make recommendations for EPA to do so. It is expected that the environmental auditor liaises with EPA if there are long term management concerns that pose a risk to human health or the environment that cannot be addressed by an audit alone.

Environmental auditors should discuss a proposed recommendation with the relevant planning or responsible authority if that authority needs to be involved in implementation[[31]](#footnote-31) or enforcement of the recommendation, or if it is unknown if the recommendation is consistent with planning policy. When referring to use of a ‘suitable qualified professional[[32]](#footnote-32)’ to be involved in any audit recommendation, the auditor needs to provide details of who that is in a manner that is clear to the party the recommendation applies to.

**Responsibilities of the person in management or control of the audit site:**

The person in management or control of the land has the primary responsibility for ensuring and demonstrating compliance with any recommendation. In some situations, there may be required actions such as verification works by a suitably qualified professional or an environmental auditor to demonstrate compliance. Generally, the owner or occupier of the audit site will be the person in management or control of the land. However, that will not always be the case. For example, during construction the person in management or control of an audit site could be a land developer who will sell the site after development.

If there is contaminated land remaining at the audit site, section 39 of the EP Act 2017 requires the person in management or control to manage that contaminated land. The duty to manage also includes obligations to provide adequate information to any person that may be affected by the contamination and to any person who is reasonably expected to become a person in management or control of the contaminated land. It is important that any person who becomes a person in management or control of an audit site, reads and understands the recommendations that apply to the audit site.

## D3 What to consider when formulating environmental audit statement recommendations

Environmental auditors should consider the likelihood that a complete pathway could exist (source-pathway-receptor); the potential risks of harm to human health and/or the environment and what preventative exposure measures need to be in place to mitigate any potential risks of harm to human health and the environment. Environmental audit statement recommendations should describe preventative exposure measures intended to provide physical and/or administrative barrier(s). General examples of physical/administrative barriers include:

* physical: certain works to be carried out prior to the commencement of the development/completion of development, issue of a statement of compliance required before subdivision into multiple lots/occupation/commencement of the use (e.g., construction of a pavement or building in accordance with a proposed development plan);
* administrative: management measures to be implemented on an ongoing basis to prevent/minimise exposure to contaminated land (e.g., environmental management plan); or
* administrative: prohibition on a use (e.g., the extraction and use of groundwater).

In some cases, it may be necessary to provide multiple measures that act as a contingency or ‘fail-safe’. For example, two physical barriers (e.g., concrete, and plastic marker layer), or a physical barrier (concrete) combined with an administrative barrier (environmental management plan).

Environmental audit statement recommendations can often be applied at the following three stages for an audit site subject to a suitability of land use audit:

* **pre-development stage**, prior to the commencement of buildings and works and can include (but not limited to) excavation of soil or fill; or
* **pre-use stage**, prior to the occupation of a development, issue of occupancy permit or a certificate of final inspection or prior to site use (e.g., as a children’s playground) and can include (but not be limited to) implementation of management plans, installation of a vapour intrusion or gas barrier, importation of fill or other similar barrier to manage exposure to volatile vapour emissions or generation of windblown dusts.; or
* **post-development stage**,comprising recommendations for ongoing management measures to prevent risks of harm to human health or the environment and can include management plans and periodic review of those plans.

In these situations, the environmental auditor should make it clear at what stage of the audit the recommendation applies and clearly detail who is responsible for implementing that recommendation (for example the land developer or long-time owner/occupier of the audit site). Recommendations for ongoing management measures post development will be addressed by the ‘person in management or control’ of the land[[33]](#footnote-33).

## D4 Mandatory elements of environmental audit statement recommendations

Recommendations should only be made where:

1. compliance with the recommendation(s) may **reasonably** be expected.

For example:

* the environmental audit statement recommendation(s) are reasonable, and practicable to implement, in the context of the applicable zone under the planning scheme and the land uses allowed in the zone, particularly the 'Section 1 - Permit not required' uses set out in the applicable zone. They must not place requirements or restrictions on the use of the audit site that are inconsistent with the land uses allowed in the zone. If a recommendation is not likely to be met in a particular land use context, this may mean an audit site is not suitable for the nominated use;
* the environmental audit statement recommendation(s) do not require substantial modifications to the proposed development or construction plan; or
* compliance is logistically and technically feasible.

1. implementation of the environmental audit statement recommendation(s) are **practicable**.

For example:

* there is a known precedent for the implementation of a similar environmental audit statement recommendation(s) on another site;
* the responsible or planning authority and other relevant parties have had input into the practicability of implementation; or
* the recommendation is capable of being implemented; for example, it may be unreasonable to expect a resident or tenant to regularly maintain a thin barrier layer and it may be more appropriate to require a more substantial barrier requiring less maintenance.

1. the implementation of the environmental audit statement recommendation(s) is readily **verifiable**.

For example:

* evidence of implementation can readily be collected during development and/or post completion; or
* verification evidence could include ‘as built’ construction plans, photos, survey data, EPA waste records, or a site inspection report by a suitably qualified professional.

The relevant planning or responsible authority[[34]](#footnote-34) and/or EPA may require written notification and associated documentation that confirms recommendations have been met, from the person in management or control of the audit site, an environmental auditor or another relevant professional. Other parties may also need evidence of verification of audit recommendations, such as a building surveyor before issuing a certificate of occupancy.

Refer to section 11.3 of this guideline for further information on environmental audit statement recommendations.

## D5 Planning considerations when preparing environmental audit statements

EPA encourages environmental auditors to engage with the relevant responsible or planning authority when making recommendations that can be given effect through the planning controls. For the environmental audit statement to meet its intended purpose, it is critical that statement provisions are prepared in such a way that a planning or responsible authority can reasonably require them to be implemented. Environmental auditors are expected to consider the following planning aspects when preparing an environmental audit statement, where possible.

**Planning approval** – where environmental audit recommendations relate to the use and development of land, confirm with the planning or responsible authority whether there is a future planning approval required for that proposal under the relevant planning scheme. Where there is no planning approval required, there is no planning control available to enforce the environmental audit recommendations. Care must be taken by the environmental auditor as the environmental audit recommendations would need to be implemented by the person in management or control of the land without any approval or verifications required through a planning control. EPA expects that these types of management and/or control measures would be minimal and only apply to low risk scenarios. If an environmental auditor is concerned that there is no regulatory tool to capture management of high-risk situations where clean up so far as reasonably practicable has occurred, the environmental auditor should speak to the relevant planning authority, responsible authority, or EPA.

For example, it is not appropriate to make environmental audit recommendations to manage complex or significant risks of harm to human health or the environment in the following scenarios:

* **low density scenarios** – the environmental auditor should consider the onus of compliance with recommendations, particularly where users of the land have access to soil. For example, for low density residential land use it may be difficult to compel the owners and occupiers with a broad range of management measures in the absence of a body corporate.
* **when no permit is required** –Environment audit statements for sites where there is no planning permit required under the applicable zoning in the planning scheme for the use or proposed use, should not contain recommendations for the Section 1 – ‘Permit not required’ uses. For example, a single dwelling in a residential zone may not require a planning permit as this is listed under ‘Section 1 – Permit not required’. Therefore, it would be inappropriate to apply environmental audit statement recommendations for this residential use.

In the above scenarios, and others where there are likely to be issues enforcing compliance with recommendations, the auditor should consider whether the land is suitable for the current or proposed use (see section D4 of Appendix D above).

**Consistency with planning requirements** – where possible, environmental auditors should take reasonable steps to ensure that recommendations are consistent with planning requirements.

For example, a recommendation specifying that “the site must be covered with an impervious concrete” for a residentially zoned area is likely to contradict planning requirements or policies related to provision of permeable areas and landscaping and is therefore not appropriate.

**Referencing approved development plan/endorsed plan** – where a recommendation references a set of plans such as a ‘development plan’ or an ‘endorsed plan’ (usually a plan approved under or as part of a planning permit), the environmental auditor should include the plan title and approval details in the recommendation. Endorsed plans are those that are approved by the Council either as part of the permit approval, or as a condition of a permit, and will generally be the plans that everyone onsite during construction, including builders or landscapers will refer to.

**Planning scheme amendments** – this guideline does not include information on how to use an environmental audit to support a planning scheme amendment application. Should a planning authority or relevant responsible authority wish to use the environmental audit system to support an amendment it is recommended to discuss this approach with EPA. [Ministerial Direction No. 19 – *Preparation and Content of Amendments that May Significantly Impact the Environment, Amenity and Human Health* (MD19)](https://www.planning.vic.gov.au/__data/assets/pdf_file/0029/395066/Direction-19-and-information-requirement-amendments-that-may-result-in-impacts-on-the-environment,-amenity-and-human-health.pdf) requires a planning authority to seek the views of EPA when undertaking a strategic planning process and preparing a planning scheme amendment that may significantly impact Victoria’s environment, amenity and/or human health due to pollution and waste, including those relating to potentially contaminated land, unless the Planning Minister grants an exemption.

For strategic planning matters, EPA can be contacted on [stratplan@epa.vic.gov.au](mailto:stratplan@epa.vic.gov.au).

## D6 Model recommendations and other related information for common scenarios

These model recommendations apply to audits conducted in relation to contaminated land and may not cover every scenario encountered by environmental auditors as each audit site is unique. They are provided as examples of typical recommendations which can be used where relevant or appropriate. For recommendations which combine a requirement to both construct a mitigation measure and maintain it on an ongoing basis, the environmental auditor should split these into two separate requirements. This is because different statutory mechanisms may be used to compel these separate recommendations.

For recommendations that must be met prior to occupancy or commencement of use, the planning framework is the primary mechanism for implementation. For other recommendations that apply on an ongoing basis (i.e., after occupancy), mechanisms under the planning system such as Section 173 Agreements can be used or alternatively instruments under the environment protection framework may be used, where appropriate. If these mechanisms are considered, an environmental auditor should seek advice from the relevant authority (refer to relevant responsibilities in section D2 of Appendix D above).

Recommendations which require “evidence of compliance to be provided in writing by a suitably qualified professional” by a certain time are suitable and can be included in planning approvals.

Example information that planning and responsible authorities use when writing planning permits can be found in ‘[Greenfield Subdivision Permits, A Model Approach](https://vpa-web.s3.amazonaws.com/wp-content/uploads/2020/05/GREENFIELD-SUBDIVISION-PERMITS-A-MODEL-APPROACH_MAY-2020.pdf)’.

Model recommendations (MR) presented in the section below are labelled with MR followed by an identifier, for example MR001.

Other related information (ORI) items can be included to present relevant information about the site that is not part of the opinion regarding the recommendations on the environmental audit statement. Model other related information is labelled ORI and then an identifier, for example ORI001.

**1. Barriers**

Where contaminated land (by soils and/or groundwater conditions) remains, and the environmental auditor deems that exposure to the medium(s) should be restricted, a physical barrier may be required to limit that potential exposure.

Physical barriers should be substantial, contiguous, and not easily removed. They may include the following:

* concrete or other hardstand, e.g., building slab, roads, pavements;
* clay capping; or
* clean fill, especially for landscaped areas (including private fruit and vegetable gardens). The minimum acceptable depth of unstructured soil is generally considered to be 0.5 m.

Where physical barriers are required, the environmental auditor should separate out the requirements relating to the construction of barriers and ongoing maintenance requirements. As the former would be addressed in conditions of a planning approval, and the later would be addressed by the person in management or control of the land (or if applicable through an EPA notice). The following model recommendations should be considered:

**Relevant for the determining authority**

**MR001**

Prior to [*the commencement of the development/completion of development*], the audit site [*or specified parts of the audit site*] must be covered with a physical barrier, such as [*environmental auditor to insert suitable barrier/s*], in accordance with the endorsed plans for the audit site and evidence of compliance provided to [*the planning or responsible authority*].

**MR002**

Prior to occupation, any landscaped area or garden bed must be constructed with at least 0.5 m thickness of [*environmental auditor to specify*] below the finished surface, which is demonstrated to be suitable for the audit site and consistent with soil classified ‘fill material’ in accordance with the *Environment Protection Regulations 2021* and evidence of compliance provided to [*the planning or responsible authority*].

**Relevant for occupier/owner/site manager**

**MR003**

Landscaped garden beds have been constructed with at least 0.5m [*environmental auditor to specify*] below the finished surface in areas shown on [*environmental auditor to include details shown on plan*]. These have been constructed to make sure [*site users*] do not come into contact with the soil as it contains [*insert details*] that can pose a risk of harm to human health and/or the environment. The [*occupier of the site*] must maintain the garden beds by [*insert details on how to maintain this*].

**MR004**

All physical barriers [*environmental auditor to include details as shown on plans*], must be maintained [*by the occupier*] on the audit site and if subsequently damaged or removed during development or occupation of the audit site, must be reinstated [*by the occupier of the site*] as soon as possible and to the same condition or better as they were prior to any disturbance.

**MR004a**

If removal of the physical barrier (as prescribed in condition/s [x] above) is proposed, an environmental auditor appointed under Division 1 of Part 8.3 of the *Environment Protection Act* *2017* must be engaged [*by the owner or occupier of the site*] to conduct an environmental audit of the site under section 208 of the EP Act 2017, to consider if the barrier is no longer required.

**2. Marker layers**

In some instances, the environmental auditor will recommend a marker layer that will alert to the presence of contaminated soil. A marker layer is a sheeting often made from plastic but can also be made from other material such as geo mesh. Where a marker layer is required to be installed to indicate the presence of contaminated land from the condition of soils at depth, the following model recommendations should be considered:

**Relevant for the determining authority**

**MR005**

Prior to [*the commencement of the development/completion of development]* a marker layer *[environmental auditor to provide detail of what this is for example a plastic sheeting, or a geo mesh etc]* clearly labelled contaminated soil must be installed by [*insert details of who will install these*] above the hazardous soil horizons to indicate when such soils may be encountered. The marker layer must be continuous, durable, and visibly different to other construction materials on the audit site. The specifications and location of the marker layer must be identified in the [*environmental auditor to refer to endorsed plan/s attached*] for the audit site.

**Relevant for occupier/owner/site manager**

**MR006**

Marker layers have been constructed as shown on [*environmental auditor to specify plans*] and are labelled contaminated soil at [*insert depth*] below the finished surface and this must always be maintained by [*insert details on how to maintain this*] by the [*occupier of the site*].

**3. Groundwater**

Where an environmental auditor is of the opinion that clean up so far as reasonably practicable has been achieved to manage risks of harm to human health or the environment, and groundwater is unsuitable for certain environmental values[[35]](#footnote-35), the following model recommendation should be considered:

**Relevant for occupier/owner/site manager**

**MR007**

The environmental auditor is satisfied that the groundwater has been cleaned up so far as reasonably practicable, however the groundwater is not suitable for [*insert list of compromised environmental values, if all are compromised refer to them as any use*] and must not be used without prior testing and review of results by a suitably qualified professional to confirm its suitability for the intended use. The environmental auditor has prepared a [*insert figure reference*] that shows the extent of the impacted groundwater. Groundwater may be extracted for the purpose of environmental monitoring or remediation.

***Note:*** *When groundwater extends off site and the site is a source site, the auditor needs to make this clear to the relevant occupier/owner/site manager/affected party and what management measures are in place to minimise risks of harm to the environment or human health*[[36]](#footnote-36)*. The auditor should add the following to MR007.*

Groundwater extends beyond the audit site boundaries and needs to be managed as explained in [*refer details of management plan/groundwater quality management plan*]. The [*occupier, owner, site manager*] needs to review the [*refer details of management plan/groundwater quality management plan*] every [*insert timeframe as outlined in the management plan/groundwater quality management plan*] or when groundwater conditions may change [*insert examples, for example changed groundwater levels or changes land uses*]. The [*occupier, owner, site manager*] must also ensure that adequate information is provided to any person they reasonably believe could be affected by the contamination[[37]](#footnote-37).

Where the site is a non-source site consider the following model recommendation:

**Relevant for occupier/owner/site manager**

**MR008**

Groundwater beneath the site is contaminated, based on an evaluation of [*insert data reference*] and is not suitable for [*insert list of compromised environmental values, if all are compromised refer to them as any use*]. The site is not the source of the contamination, and the groundwater should not be used without prior testing and review of results by a suitably qualified professional to confirm its suitability for the proposed use. It may be extracted for the purposes of environmental monitoring or remediation.

Where groundwater contaminant levels are above the adopted investigation criteria for an environmental value, but are considered to be background (hence not contamination), consider the following model other related information:

**ORI001**

Groundwater at the site contains naturally elevated concentrations of [*insert analytes*]. The levels are considered typical of the natural groundwater quality surrounding the site and does not constitute contamination in accordance with *clause 4 of the Environment Reference Standard 2021*.

Where groundwater is extracted for the purposes of dewatering, construction, control of infiltration into basements, or post audit groundwater monitoring, it needs to be appropriately disposed (contaminated groundwater cannot be discharged to stormwater). If groundwater needs to be dewatered during construction, it is recommended that the environmental auditor speaks with the planning authority or responsible authority as they may be able to contribute to enforcing this. If this is the case, it is recommended to list this as a specific recommendation and then ensure that evidence of appropriate arrangements for disposal, prior to dewatering commencing, is provided to the relevant planning or responsible authority. The following model other related information can be considered:

**Relevant for the determining authority**

**ORI002**

Where contaminated groundwater is extracted at the audit site for the purpose of dewatering, construction, control of infiltration into basements, post audit groundwater monitoring or [*insert other purpose*], it will require approved disposal to sewer (potentially requiring pre-treatment) or a licensed treatment facility, subject to the requirements of the relevant water authority or EPA.

**Note** –shallow groundwater (less than 3 metres below ground level) does not require a bore licence to extract groundwater. Consideration of this is required by the environmental auditor.

Where groundwater monitoring bores are no longer required at a site, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI003**

Groundwater monitoring bores present at [*the site/installed off-site*] [*as listed…*] should be decommissioned with 12 months of cessation of use, in accordance with the requirements of “Minimum Construction Requirements for Water Bores in Australia”, published by the Land and Water Biodiversity Committee [*most recent version*].

**4. Groundwater quality management plans**

A management plan may be required when clean up to protect environmental values is not practicable or not necessary based on the extent of contamination and site setting. Further guidance on the preparation of a management plan for groundwater contamination is provided in section 10 of [*Guidance on cleanup and management of contaminated groundwater (publication 2001).*](https://www.epa.vic.gov.au/about-epa/publications/2001)

When specifying groundwater quality management plans, consider the following model recommendations:

**Relevant for occupier/owner/site manager**

**MR009**

A groundwater quality management plan [*insert title reference*] has been prepared and is attached to the environmental audit statement. It must be implemented by the parties listed in that plan.

**MR009a**

The groundwater quality management plan[*insert title reference*] must remain in force until [*insert date*] and at that time be reviewed by an [environmental *auditor to determine suitably qualified professional*] to determine if the plan needs to be updated or is no longer required[[38]](#footnote-38).

**5. Gas/vapour/odour mitigation**

Where soil and/or groundwater conditions may pose a risk of harm to human health or the environment from gas/vapour/odour, consider the following model recommendations:

**Relevant for the determining authority**

**MR010**

By [*date/other trigger*] a [gas/*vapour/odour*] mitigation system must be designed and installed by a suitably qualified professional and verification of the system by an independent suitably qualified professional [*environmental auditor to identify who needs to verify*]by that party provided in writing to the [*the planning or responsible authority (insert contact details)*].

**Relevant for occupier/owner/site manager**

**MR011**

The vapour mitigation system that has been constructed in accordance with [*insert details for development/environmental management plan*] must be maintained in a good state of repair by [*insert details of who maintains this*]. The requirements for how maintenance should be undertaken are outlined in [*include details of where this is outlined in the referenced plan*]. The vapour mitigation system must remain in place until [*environmental auditor to insert details*].

Where the condition of soil and/or groundwater may pose a risk of harm to human health or the environment from gas/vapour/odour/corrosive risk and the endorsed plans do not include a basement construction, i.e., no unacceptable risk based on the proposed development, consider the following model recommendation:

**Relevant for the determining authority**

**MR012**

There are no basements included in the [*proposed/approved*] endorsed plans for the audit site. The audit site is not suitable for a basement without further assessment and the potential design and installation of mitigation measures to manage [*vapour/odour*] risks. If a basement [*include description of whether it applies to single or multilevel if relevant*] is incorporated in the development of the site, an environmental auditor appointed under Division 1 of Part 8.3 of the *Environment Protection Act 2017* must be engaged to conduct an environmental audit of the site under section 208 of the EP Act 2017, to determine the suitability of this use.

**6. Management plans**

Where a management plan is developed along with the environmental audit, consider the following model recommendation:

**Relevant for occupier/owner/site manager**

**MR013**

Prior to [*day month year*] and ongoing from that [*date/other trigger*], [*name of the person in management or control of the audit site*] must implement and maintain the [*environmental auditor to specify the names of the various attached plan/s*] attached to this environmental audit statement.

Where a management plan is required to be developed, it is important to specify when the plan must be developed and verified. For example, prior to construction commencing or post construction being completed. It is also important to determine if it needs to be provided to the EPA[[39]](#footnote-39), planning authority or responsible authority. Consider the following model recommendations:

**Relevant for the determining authority**

**MR014**

A [*insert details of the plan*] plan must be developed for the audit site by [*insert timing*] by a suitably qualified professional and verification by [*insert details of role or qualification of person required to verify*] advised in writing to EPA[[40]](#footnote-40) ([environmental.audit@epa.vic.gov.au](mailto:environmental.audit@epa.vic.gov.au)) and the planning authority or responsible authority [*insert contact details as confirmed by that party*].

**Relevant for occupier/owner/site manager**

**MR015**

Prior to [*day month year and/or audit site occupation*], [*name of the person in management or control of the audit site*] must implement and maintain the [*insert details of the plan*] plan required by recommendation [*insert identifier*] of this environmental audit statement.

The required timing for implementation will vary depending on the nature of the plan, and can reflect a date prior to occupation, at the start of construction works, or prior to issuing the Certificate of Occupancy.

**7. Endorsed plans**

If a proposed plan, endorsed plan or development plan is considered as part of the audit, the associated plan should be attached to the environmental audit statement where possible. To ensure a mechanism is in place to consider changing risks of harm to human health or the environment associated with any changes to the development plan, consider the following model recommendation[[41]](#footnote-41):

**Relevant for the determining authority**

**MR016**

This environmental audit statement is directly referrable to and based upon the layout and construction of the development shown and described in the attached endorsed plans associated with the planning or building permit [*environmental auditor to describe the attached development plan*]. Any substantive change/s [*environmental auditor to insert i.e., coverage of paved area, building footprint, basement*] must be verified by an environmental auditor appointed under Division 1 of Part 8.3 of the *Environment Protection Act 2017*, and this verification advised in writing to EPA and the planning authority or responsible authority.

**8. Corrosive properties**

Where construction of any subsurface features are likely to be impacted by corrosive conditions due to the condition of soil, groundwater, or vapour at the audit site, consider the following model recommendation:

**Relevant for occupier/owner/site manager**

**MR017**

During construction of any subsurface features deeper than [*insert depth or descriptor*], materials must be designed to withstand [*insert type of condition*], in accordance with Australian Standard 2159 (Piling-Design and Installation) as amended from time to time and/or [*other relevant guidance, environmental auditor to insert*]. This work needs to be verified by a suitably qualified professional.

Where the corrosive properties are due to background levels of substances in soil or groundwater, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI004**

[Groundwater, soil] may adversely affect the [insert type of underground structure, e.g., building footings] due to its salinity, acidity, [insert chemical substance] background level and the following controls must be applied [*insert controls*].

**9. Asbestos**

Asbestos should be removed so far as reasonably practicable. On some occasions there may be a building that contains asbestos remaining on the site which is not being demolished prior to completion of the audit. On sites where asbestos may remain in fill, as pipes or as the result of demolition activities, consider the following model recommendations:

**Relevant for occupier/owner/site manager**

**MR018**

Asbestos containing materials were found on the audit site and have been removed as far as reasonably practicable. Small quantities of bonded asbestos cement (AC) fragments may remain within the soil and be uncovered during excavation works. These AC fragments are not anticipated to represent a health risk to occupiers of the completed development. If encountered during future development or use of the audit site, any fragments must be handled and disposed in accordance with [*insert relevant regulations*].

**MR019**

Asbestos containing material has been reported on the audit site as part of [*structure/underground pipe etc details*]. As part of future development, [*this structure/pipe etc*] is to be removed by [*insert details of who will remove this*] from the site. The removal must be conducted in accordance with the *Occupational Health & Safety Regulations 2017*, including the use of an appropriately licensed contractor, and prior to [*date/other trigger/occupation*].

**10. Aesthetic considerations**

There may be general requirements on a planning permit or local laws that manages things such as aesthetics and odour.

If inert materials remain on site that need to be removed during construction, that needs to be made clear as a recommendation. In most cases the inert material is removed to the extent practicable and only minor occurrences may remain, which can be noted as other related information. Where inert materials remain on site, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI005**

Scattered pieces of concrete, brick, steel [*or other material*] has been removed as far as reasonably practicable, but minor occurrences may remain within the soil and be exposed during excavation works, development or occupation of the audit site.

Where odorous medium (soil/fill/groundwater) remains on site and does not pose a risk of harm to human health or the environment, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI006**

Some soil/fill/groundwater may contain odours below [*“x” m*] depth at some locations on the audit site. This material is not considered to represent a risk of harm to human health or the environment but may cause a noticeable odour if exposed during excavation works.

**11. Naturally occurring constituents**

Where soil pH is naturally low or high across most of the audit site, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI007**

Soil pH is [*low/high*] across much of the audit site but is considered to be natural in origin. Local natural plants, grasses and fauna are likely to be adapted to this [*low/high*] pH level, however there may be some impact on the growth and development of some introduced plants, grasses, and fauna.

Where concentrations of metals are naturally elevated across the audit site, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI008**

Soil at the audit site contains naturally elevated concentrations of [*insert analytes*]. The levels are considered typical of the regional soil quality surrounding the audit site and do not indicate the presence of contaminated land or represent a health or ecological risk. Local natural plants, grasses and fauna are likely to be adapted to these concentrations of analytes, however there may be some impact on the development of some introduced plants, grasses, and fauna.

**12. Sub-divided audit areas**

Where an audit site has been divided into a number of audit areas, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI009**

A separate environmental audit statement has been issued for [*Lot description, address, etc*].

**13. Information on a prior/superseded environmental audit**

Where the environmental audit supersedes a previous environmental audit statement, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI010**

This environmental audit statement [*environmental audit ID number*] supersedes the environmental audit statement [*environmental audit ID number*] issued by [*environmental auditor name*] of [*environmental auditor company*] which was provided with the environmental audit report titled [*report title, reference*] and dated [*date*].

**14. Variance with planning scheme requirements**

Where there are uses that may not be allowed under the relevant planning scheme, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI011**

Not all land uses for which the audit site is considered suitable by this environmental audit may be allowed under the existing zoning of the [*insert Council name*] planning scheme.

**15. Removal of soil from the site post audit**

Where any soil is to be removed from the audit site post audit, consider the following model other related information:

**Relevant for occupier/owner/site manager**

**ORI012**

Any soil proposed to be excavated and disposed off-site after the completion of the audit, must be classified by [*insert details of who*] in accordance with [i*nsert specific guideline and regulation details*].

**16. Importation of fill material to the site post audit**

Where any fill material is proposed to be imported to the audit site post environmental audit, consider the following model other related information:

**Relevant for occupier/owner/site-manager**

**ORI013**

Any fill material proposed to be imported to the audit site after the completion of the environmental audit, must be tested and classified as ‘Fill Material’ in accordance with *Environment Protection Regulations 2021* and any relevant EPA designations and guidance.

Accessibility

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Environment Protection Authority Victoria

GPO BOX 4395 Melbourne VIC 3001

1300 372 842



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1. Note for the purposes of Part 3.5 of the Environment Protection Regulations 2021 which sets out exemptions from certain permission activities, and Schedule 1 - Prescribed permission activities and fees, the definition of "land" does not include "groundwater". This change in definition does not otherwise apply. [↑](#footnote-ref-1)
2. The person who is the 'responsible authority' for the purposes of the administration and enforcement of the planning scheme is set out in section 13 of the Planning and Environment Act 1987. [↑](#footnote-ref-2)
3. Section 333 of the EP Act 2017. [↑](#footnote-ref-3)
4. Refer to Section 2 of this guideline for definition of potentially contaminated land. [↑](#footnote-ref-4)
5. Auditors are provided access and provided with a link to the portal upon their appointment. [↑](#footnote-ref-5)
6. Section 208(3) of the EP Act 2017. [↑](#footnote-ref-6)
7. The accepted file types are GeoJSON, Shapefile and CAD. [↑](#footnote-ref-7)
8. Refer to Section 6(2)(c) of the EP Act 2017 for the concept of state of knowledge. [↑](#footnote-ref-8)
9. Regulation 5 of the Regulations 2021. [↑](#footnote-ref-9)
10. Section 208(7) of the EP Act 2017. [↑](#footnote-ref-10)
11. Division 3, section 210 of the EP Act 2017 [↑](#footnote-ref-11)
12. Under the Water Act 1989. [↑](#footnote-ref-12)
13. Under the framework of the 1970 Act and subordinate legislation, groundwater quality restricted use zones (GQRUZ) were identified by EPA where residual groundwater contamination remains within an area after the clean up to the extent practicable of contaminated groundwater (CUTEP) was determined. EPA will retain the role of identifying such areas where groundwater use should be modified, when it is considered necessary. Further information about this process is to be released. [↑](#footnote-ref-13)
14. Refer to Section 39 of the EP Act 2017. [↑](#footnote-ref-14)
15. A review of building construction details, including a detailed review of basement drainage design plans should also be undertaken to determine whether the basement drainage design provides any preferential pathways for vapour intrusion into the basement. For example, strip drains that drain external seepage water into the basement through multiple weepholes around the perimeter of the basement can provide numerous preferential pathways for vapour to enter a basement (particularly when the system is dry and seepage water is not present). Where weepholes are introduced into the basement design, low concentrations of volatile contaminants in groundwater can lead to potential vapour intrusion risks (without a redesign to a closed basement drainage system, with sealed pipework rather than weephole design). [↑](#footnote-ref-15)
16. Section 39(1) of the Act. [↑](#footnote-ref-16)
17. Section 210(1) of the EP Act 2017. [↑](#footnote-ref-17)
18. If specifying a proprietary product provides greater clarity than detailed specifications, it should be made clear that this is an example and that products equivalent to that specified can also be used. [↑](#footnote-ref-18)
19. In accordance with Water Act 1989, s.53(1)(b) & s.40(1)(c). [↑](#footnote-ref-19)
20. Section 39 of the EP Act 2017. [↑](#footnote-ref-20)
21. If conclusions are based on the findings of another party (for example site assessor) the environmental auditor should verify those conclusions. [↑](#footnote-ref-21)
22. Section 210 of the EP Act 2017. [↑](#footnote-ref-22)
23. Section 213(2) of the EP Act 2017. [↑](#footnote-ref-23)
24. Section 213(1) of the EP Act 2017. [↑](#footnote-ref-24)
25. Section 215 of the EP Act 2017. [↑](#footnote-ref-25)
26. Section 213(1) of the EP Act 2017. [↑](#footnote-ref-26)
27. Section 213(4) of the EP Act 2017 [↑](#footnote-ref-27)
28. Section 213(5) of the EP Act 2017. [↑](#footnote-ref-28)
29. Section 213(6) of the EP Act 2017. [↑](#footnote-ref-29)
30. Section 213(7) of the EP Act 2017. [↑](#footnote-ref-30)
31. For example, the recommendation can be given effect through planning tools such as conditions on planning permits or agreements made pursuant to section 173 of the Planning and Environment Act 1987. [↑](#footnote-ref-31)
32. Refer to definitions section 2.1 [↑](#footnote-ref-32)
33. Section 39 of the EP Act 2017. [↑](#footnote-ref-33)
34. See section 4.3 for the roles and responsibilities of local councils as responsible authorities under the Planning and Environment Act 1987. [↑](#footnote-ref-34)
35. As defined in the EP Act 2017*.* [↑](#footnote-ref-35)
36. The concept of minimising risks of harm is explained in section 6 of the EP Act 2017. [↑](#footnote-ref-36)
37. Refer to section 39 of the EP Act 2017. [↑](#footnote-ref-37)
38. Note that so long as there is contaminated land (which includes groundwater) present, there is a duty to manage contaminated land that applies to the person in management or control of the land. Refer to Section 39 of the EP Act 2017 and Guidance on clean up and management of contaminated groundwater (publication 2001) for further information. [↑](#footnote-ref-38)
39. For example, if the environmental audit is required by EPA through a remedial notice. [↑](#footnote-ref-39)
40. To EPA if required by a remedial notice. [↑](#footnote-ref-40)
41. This does not mean any change to the environmental values of land, as this would require an amendment or new environmental audit. [↑](#footnote-ref-41)