CONTENTS

1. WHAT ARE ENVIRONMENT PROTECTION POLICIES? 2
   1.1 What is the difference between EPPs, the Act and Regulation? 2
   1.2 How do all three components (Act, Regulation and EPPs) fit together? 2
   1.3 How are EPPs produced and who has input? 2
   1.4 How many EPPs are there? 3
   1.5 How are the EPPs structured? 3
   1.6 To whom and where do the EPPs apply? 3
   1.7 How are EPPs kept up to date? 3
   1.8 NOTES ON READING THIS EPP 3

2. ROLE OF THIS EPP 4
   2.1 Background 4
   2.2 Administration consistent with Objects and Principles of the Act 4
   2.3 Activities addressed by this EPP 5
   2.4 The National Environment Protection (Assessment of Site Contamination) Measure 6
   2.5 What about other legislation? 7

3. DEFINITION AND MANAGEMENT OF CONTAMINATED LAND 7
   3.1 What is contaminated land? 7
   3.2 Managing contaminated land 8

4. POLICY OBJECTIVES 8

5. COMPLIANCE WITH THIS EPP 8

6. COMPLIANCE AND ENFORCEMENT 9

7. REVIEW OF EPA DECISIONS 9

8. LEGISLATIVE REQUIREMENTS 9
   8.1 Environmental duties 9
   8.2 Environmental management instruments 11
   8.3 Specific contaminated sites legislative provisions 12

9. SITE ASSESSMENT AND REMEDIATION 14
   9.1 When is a site assessment required? 14
   9.2 When is remediation of contaminated land required? 15
   9.3 What is required for a contaminated site assessment? 16
   9.4 Who can conduct an assessment? 21
   9.5 Orders for assessment or remediation of contaminated land 22
   9.6 Notification of site assessment or remediation (including access to relevant documents) 22
   9.7 Cost of assessment and remediation – who is financially liable? 23

10. ENVIRONMENTAL AUDITS 24
   10.1 What is a site audit? 24
   10.2 When is a site audit required? 24
   10.3 Who can undertake a site audit? 25

11. CONTAMINATED SITES REGISTER AND INFORMATION MANAGEMENT 26
   11.1 Register of contaminated sites 26
   11.2 Contaminated sites management database and geographic information system 27
   11.3 Contaminated land search 27
   11.4 Lease Conveyancing or due diligence enquiries 28
   11.5 Groundwater bore search 28

12. GUIDELINES AND OTHER RESOURCES 28
   12.1 Statutory guidelines 28
   12.2 ACT publications 28
   12.3 ANZECC, ARMCANZ, enHealth and NHMRC publications 29
   12.4 Australian Standards 29
   12.5 NSW publications 30
   12.6 Victorian publications 30
   12.7 WA publications 30
   12.8 Other publications 30

13. GLOSSARY 31

14. REFERENCES 32
   14.1 National Environmental Health Forum monographs 32
   14.2 South Australian Health Commission contaminated sites monograph series 32
1. WHAT ARE ENVIRONMENT PROTECTION POLICIES?

Environment Protection Policies (EPPs) are policies and guidelines, issued to coincide with the *Environment Protection Act 1997* (the Act), which help to explain and apply the Act and the Environment Protection Regulation 2005 (the Regulation) made under that Act.

To explain the policy context, EPPs often summarise or explain the Act. However, the Act, Regulation and other legislation remain the authoritative statement of the law and readers should refer to the actual text of the legislation whenever necessary.

This EPP is one of several issued to coincide with the Act. The Environment Protection Authority (EPA) intends to update EPPs regularly, to ensure they are relevant, useful, reflect both experience and current best environmental practice and are in line with community expectations.

1.1 WHAT IS THE DIFFERENCE BETWEEN EPPS, THE ACT AND REGULATION?

The Act and Regulation are legislative instruments that are legally binding. As policies and guidelines, the EPPs are not legally binding. They support the operation of the legislation by providing certainty and transparency in its administration.

For example, the EPA will consider any relevant EPPs in determining the condition of an Environmental Authorisation or Environmental Protection Agreement.

1.2 HOW DO ALL THREE COMPONENTS (ACT, REGULATION AND EPPS) FIT TOGETHER?

The Act, Regulation and EPPs all work together to provide an integrated framework for environment protection as follows:

» the Act is a general legislative framework that establishes the machinery necessary for environment protection. For example, it establishes the independent statutory role of the EPA and provides for instruments like environmental authorisations

» the Regulation contains rules and standards about specific aspects of the environment. Examples of matters dealt with in the Regulation are setting environmental standards for water quality and noise levels for particular areas of the ACT

» the EPPs contain guidance on meeting the requirements of the Act and the Regulation

Sections 3C and 3D of the Act sets out the Objects and Principles of the Act, and require along with Section 12 that the Act shall be construed and administered so as to be consistent with the Objects and Principles. As the Regulation and the EPPs are made under the Act, this principle applies with equal force to those instruments.

1.3 HOW ARE EPPS PRODUCED AND WHO HAS INPUT?

The EPA develops draft EPPs, but before these are finalised, the EPA must advertise the release of drafts and give members of the public 40 working days (8 weeks) to comment on them.

The EPA must consider these comments and may incorporate them into the EPP if appropriate. An EPP can only be made with the consent of the Minister responsible for the Act.
1.3.1 How will people know about changes to policies?

The EPA must publish a notice in the Legislation Register and provide additional public notice when an EPP is finalised, changed or revoked, except when changes are only editorial.

For example, if the name of a government agency has changed, the name can be changed in the EPPs without public consultation or notification in the Legislation Register.

The EPA cannot vary or revoke an EPP without the Minister’s consent.

1.4 HOW MANY EPPS ARE THERE?

Currently, there are eight EPPs:

- General
- Water Quality
- Air
- Noise
- Contaminated Sites (this EPP)
- Hazardous Materials
- Motor Sport Noise
- Outdoor Concert Noise.

The EPA may develop other EPPs over time as required to meet emerging issues or community expectations.

1.5 HOW ARE THE EPPS STRUCTURED?

The EPPs are generally structured along the following lines:

- Background – this part sets out the context and underlying policy objectives of the EPP.
- Policies and Guidelines – this part explains how relevant provisions of the Act and Regulation work and contains the substantive policies and guidelines of the EPP.
- Glossary – this part contains explanations of words and abbreviations, particularly those specific to the particular EPP. Terms used in more than one EPP are included in the Glossary for the General EPP.
- Appendix – this part contains detailed or technical information separated from policies and guidelines for easy reference.

1.6 TO WHOM AND WHERE DO THE EPPS APPLY?

The EPPs apply to all persons and things for activities on all land within the ACT, including land owned by the Commonwealth, to which the Act applies. This includes the ACT Government and its agencies and government-owned companies. At present the Act does not bind the Commonwealth Government, however, generally Commonwealth agencies have committed to comply with the Act.

1.7 HOW ARE EPPS KEPT UP TO DATE?

EPPs can be amended at any time to keep them up to date. All amendments other than those of an editorial nature must go through the public consultation process above.

1.8 NOTES ON READING THIS EPP

Where the EPP refers to a legal requirement, it will give the source of this requirement for reference. Wherever a term is used that is defined in the Act or Regulation, it appears in bold.
2. ROLE OF THIS EPP

2.1 BACKGROUND

This Contaminated Sites EPP is designed to help people understand the Act and the Regulation as they apply to contaminated land. There are general offences in the Act and specific provisions for contaminated land, which carry substantial penalties. This EPP provides guidance on meeting these legislative requirements, including the need to adopt the general environmental duty, as specified in the Act, to prevent or minimise environmental harm. This EPP has been prepared by the EPA in accordance with Part 4 of the Act.

The role of EPPs and their relationship to the Act and the Regulation is explained in the General EPP. The General EPP also contains other material of relevance to this EPP such as environmental management instruments, enforcement and access to information held by the EPA. This EPP should be read together with the General and other relevant EPPs.

This EPP contains information and policies relating to the assessment, remediation (including management) and audit of contaminated land and aims to minimise the risk of adverse impacts of contaminated land on the environment and human health. This EPP explains the procedures used by the EPA to regulate the management of contaminated land within the ACT and provides guidance for owners and occupiers of contaminated land to meet their legislative obligations under the Act.

In the past, hazardous substances have been manufactured, used and disposed of without a full knowledge of the potential impacts of these activities on human health and the environment.

Examples of hazardous substances associated with activities known to have caused an unacceptable risk to human health or the environment through land contamination include: asbestos, polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs), per and polyfluorinated alkyl substances (PFASs) surfactants), heavy metals (for example, arsenic, lead, chromium, cadmium and mercury), trichloroethylene (TCE an industrial solvent) and hydrocarbons (petroleum products).

In most cases land contamination is the result of past activities which have been poorly managed or where there was a general lack of knowledge of the potential impacts that certain substances may have on human health and the environment.

At present, although hazardous substances are generally managed in a responsible manner, there is still potential for land contamination to occur due to unforeseen circumstances, accidents or criminal acts.

The policies outlined in this EPP for the management of contaminated land are designed to minimise the risk from sites contaminated with hazardous substances.

2.2 ADMINISTRATION CONSISTENT WITH OBJECTS AND PRINCIPLES OF THE ACT

This EPP has been developed in accordance with the Objects (Section 3D) and Principles (Section 12) of the Act. Specifically, Section 3C(g) states that an Object of the Act is to ensure that contaminated land is managed having regard to human health and the environment.
To ensure this EPP is consistent with the Objects and Principles of the Act, this EPP has been developed in accordance with the following:

» The level of regulatory control over contaminated land should reflect the risk to the environment and human health arising from that land. For example, the risk to the environment or human health arising from an existing operational service station site with some hydrocarbon contamination present is not likely to be as great as a former sheep dip site that has been proposed for redevelopment for residential housing. The past use of the sheep dip site may have resulted in contamination of soils and groundwater with arsenic and organochlorine compounds. Therefore Section 3C(1)(d) and (i), to effectively integrate environmental, economic and social considerations and considering contamination that poses a significant risk, along with Section 3D1(b) the precautionary principle, of the Act are likely to be given high consideration during the assessment process for the development of a site with a former sheep dip, as opposed to the operations of an appropriately managed service station.

» Where possible, regulatory controls on contaminated land should not adversely impact on regional commerce and should be consistent with national competition policy principles. Specifically, any restriction on competition should apply on the basis that the public benefit from the restriction outweighs the public interest in competition. In this situation 3C(1)(d) of the Act, to achieve effective integration of environmental, economic and social considerations in decision-making processes, will need to be applied.

» The EPP should be consistent with national and international agreements relating to contaminated land. For example, in 1992 the Commonwealth, all states and territories, and the Australian Local Government Association signed the Intergovernmental Agreement on the Environment (the Agreement). The Agreement clarified the role of the three levels of government in management of the environment. It set out nationally agreed principles of environmental policy, such as the principle of polluter pays, which details that those who generate contamination should bear the costs of any assessment and remediation that may be required. The polluter pays principle is included and defined in Section 3D of the Act.

» The Agreement also provides for the National Environment Protection Council (NEPC). This is a Ministerial Council with powers to establish, monitor and report on National Environment Protection Measures (NEPMs), which include standards, guidelines, goals and associated protocols for various aspects of environment protection. Existing NEPMs include: Air Toxics, Ambient Air Quality, Diesel Vehicle Emissions, Used Packaging Materials, National Pollutant Inventory, Movement of Controlled Waste between States and Territories and the Assessment of Site Contamination. Section 3C(1)(e) of the Act states that an Object of the Act is to facilitate the implementation of NEPMs under national scheme laws.

» Section 3C of the Act states that an Object of the Act is to minimise the risk to human health, while Section 3D creates a principle of acknowledging environmental needs in economic and social decision making. The Objects and Principles help support an integrated approach to the management of contaminated land. The EPA works with other regulatory agencies such as public health, planning, construction, occupational health and safety, waste management and dangerous goods authorities to ensure an integrated approach. For example, all development applications in the ACT are referred to the EPA and other relevant government agencies for comment.

2.3 ACTIVITIES ADDRESSED BY THIS EPP

This EPP provides guidance on the procedures for assessing, remediating and auditing of contaminated land resulting from activities that have caused or are likely to cause a significant risk of harm to human health and/or material or serious environmental harm.

Land contamination can arise from a range of land uses and activities, including commercial, residential, industrial and agricultural, particularly when the land use has involved hazardous substances. These substances, if not properly managed, may threaten human health or the environment, or may affect the current or future land use.
Specific guidance relating to the management of these activities is contained in the General and other EPPs, for example, the Hazardous Materials and Water Quality EPPs.

Note: Auditing in relation to contaminated land can be carried out by the EPA or by an auditor approved for this purpose under Section 75 of the Act.

2.4 THE NATIONAL ENVIRONMENT PROTECTION (ASSESSMENT OF SITE CONTAMINATION) MEASURE

The National Environment Protection (Assessment of Site Contamination) Measure 1999 (the ASC NEPM) is the national guidance document for the assessment of site contamination in Australia. NEPMs are made under the National Environment Protection Council Act 1994 (ACT).

The purpose of the ASC NEPM is to establish a nationally consistent approach for the assessment of site contamination to ensure sound environmental management practices are adopted by the community, including regulators, site assessors, site contamination consultants, auditors, landowners, developers and industry parties.

The desired outcome of the ASC NEPM is to provide adequate protection of human health and the environment, where contamination has occurred, through the development of an efficient and effective national approach to environmental site assessment.

This EPP is consistent with the ASC NEPM.

On 11 April 2013 the ASC NEPM (1999) was amended and came into effect on 16 May 2013.

In accordance with the requirements of the Act the amended ASC NEPM (2013) and its Schedules also came into effect in the ACT on 16 May 2013.

The ASC NEPM contains the following Schedules:

Schedule A: a flow chart that outlines the recommended process for the assessment of site contamination; and

Schedule B: that provides guidelines for the assessment of site contamination.

- B1: Guideline on investigation levels for soil & groundwater
- B2: Guideline on site characterisation
- B3: Guideline on laboratory analysis of potentially contaminated soils
- B4: Guideline on site-specific health risk assessments
- B5a: Guideline on ecological risk assessments
- B5b: Guideline on methodology to derive ecological investigation levels (EILs)
- B5c: Guideline on soil quality guidelines
- B6: Guideline on risk based assessment on groundwater contamination
- B7: Guideline on health-based investigation levels (plus appendices: B7a1, B7a2, B7a3, B7a4, B7a5, B7b, B7c)
- B8: Guideline on community engagement & risk communication
- B9: Guideline on competencies & acceptance of environmental auditors

To assist in the implementation of the ASC NEPM (2013) useful guidance documents and calculators are provided in the ASC NEPM Toolbox at www.scew.gov.au/node/941.

In the ACT all contaminated site assessments commencing after 16 May 2013 are to be undertaken in accordance with the amended ASC NEPM (2013). Contaminated site assessments substantially progressed prior to 16 May 2013 can continue to be undertaken in accordance with the original ASC NEPM (1999) subject to EPA agreement.
2.5 WHAT ABOUT OTHER LEGISLATION?

This EPP is complemented by other environmental programs and legislation aimed at protecting human health and the environment.

More detailed information is available as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Act</th>
<th>Contact*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling and storage of dangerous goods</td>
<td>Dangerous Substances Act 2004</td>
<td>WorkSafe ACT, Access Canberra</td>
</tr>
<tr>
<td>Land use and development</td>
<td>Planning and Development Act 2007</td>
<td>ACT Planning and Land Authority, Environment, Planning and Sustainable Development Directorate</td>
</tr>
<tr>
<td>Protection of public health</td>
<td>Public Health Act 1993</td>
<td>Health Protection Service, ACT Health Directorate</td>
</tr>
<tr>
<td>Heritage protection</td>
<td>Heritage Act 2004</td>
<td>Heritage Unit, Environment, Planning and Sustainable Development Directorate</td>
</tr>
<tr>
<td>Working with hazardous materials</td>
<td>Work Health and Safety Act 2011</td>
<td>WorkSafe ACT, Access Canberra</td>
</tr>
<tr>
<td>Water extraction, work in waterways</td>
<td>Water Resources Act 2007</td>
<td>Environment Protection Authority, Access Canberra</td>
</tr>
</tbody>
</table>

ACT legislation is available on the ACT Legislation Register which can be found at: [www.legislation.act.gov.au](http://www.legislation.act.gov.au)

To contact the ACT government agencies listed above call Access Canberra on 13 22 81.

3. DEFINITION AND MANAGEMENT OF CONTAMINATED LAND

3.1 WHAT IS CONTAMINATED LAND?

Contaminated land is land (including buildings and structures impacted by contaminated land and surface and underground water) on and/or in which:

- a substance is present at a concentration which exceeds that normally present (i.e. commonly referred to as the background level)
- the presence of which presents, or would be likely to present a risk of harm to human health and/or a risk of environmental harm.

For the purposes of the Act, land would not be considered contaminated merely due to the presence of hazardous substances in, on or under the land (including in buildings and structures on the land). For example a landfill site authorised under the Act may have substances in surface water above the background levels where the water is contained and managed within the site.
In this case the surface water is not considered to be contaminated land under the Act. Another example is a building that contains asbestos as part of the building fabric, construction material or insulation. The presence of asbestos as part of the building would not be considered contaminated land under the Act.

However, if these substances are managed in an appropriate manner the site would not pose a significant risk of harm to human health or the environment.

Land may be contaminated land even if it became contaminated partly or entirely by the migration of contaminants into, onto or under the land from other land. For example petroleum products leaking from underground fuel storage tanks have been known in the past to cause contamination of the surrounding soils and groundwater. In some cases this contamination has been known to migrate through the soils and groundwater to an adjacent site.

3.2 MANAGING CONTAMINATED LAND

Generally, the process of managing contaminated land can include any or all of the following:

- site assessment
- site remediation
- audit of assessment and remediation
- on-going site management.

4. POLICY OBJECTIVES

The Objectives of this Contaminated Sites EPP are to provide information to the community to:

- minimise the risk of adverse impacts of land contamination on the environment and human health within the ACT and elsewhere
- ensure that the approved land use (or uses) can be conducted without contamination presenting, or being likely to present a significant risk of harm to human health or a significant risk of material or serious environmental harm
- establish a process for assessing potentially contaminated land and, where appropriate, remediating contaminated land which presents, or is likely to present, a significant risk of harm to human health and/or a significant risk of material or serious environmental harm
- ensure that the ACT meets its national obligations and plays its part in Australia meeting its international obligations under national and international agreements relating to contaminated land
- support auditing of contaminated land assessment and remediation.

5. COMPLIANCE WITH THIS EPP

EPPs are not legally binding in themselves; they are statements of policy, guidelines and explanations of legal requirements. Where something is legally required, this EPP refers to the source legal document (usually the Act or Regulation). EPPs have been developed to help people comply with the legal requirements of the Act and Regulation and the general environmental duty, which requires people to take practicable and reasonable steps to prevent or minimise environmental harm or environmental nuisance.

The EPA has produced a range of educational materials, including industry specific information sheets, guidelines, standards and codes of practice, to inform the public of their obligations under, and promote a high level of compliance with, the Act and the Regulation.
6. COMPLIANCE AND ENFORCEMENT

The EPA has a range of administrative, civil and criminal enforcement actions available to ensure compliance with, and enforcement of, the Act and Regulation. Section 11 of the General EPP outlines the enforcement actions available under the legislation. Compliance and enforcement action taken is detailed in the EPA’s Environment Protection Compliance Framework and Environment Regulation and Protection Compliance and Enforcement Guideline 2016.

7. REVIEW OF EPA DECISIONS

Certain decisions made by the EPA are reviewable. There are two types of reviewable decisions:

» Internally reviewable decisions (a decision is reviewed by the EPA).

» Reviewable decisions (a decision is reviewed by the ACT Civil and Administrative Tribunal (ACAT)).

Under Section 135 of the Act, which specifies both the internally reviewable decision and reviewable decisions, an eligible person can make an application either to the EPA or to ACAT for review of a decision.

8. LEGISLATIVE REQUIREMENTS

This section describes the legislative framework used to protect the human health and environmental risks associated with contaminated land.

8.1 ENVIRONMENTAL DUTIES

The Act creates environmental duties:

» a general environmental duty (Section 22 of the Act)

» the duty to notify the EPA of actual or threatened environmental harm (Section 23 of the Act)

» the duty to notify the existence of contaminated land (Sections 23A of the Act).

8.1.1 General environmental duty

The general environmental duty requires all people to take practicable and reasonable steps to prevent or minimise any environmental harm or environmental nuisance their actions may cause. Environmental harm is defined as any impact that has the effect of degrading the environment. Therefore any activity leading to the creation of contaminated land (which will constitute a degrading of the environment) or any activity associated with the management of contaminated land that has a similar effect, is unlawful.

8.1.2 Duty to notify actual or threatened environmental harm

Section 23 of the Act creates a duty to notify actual or threatened environmental harm and requires a relevant person, when they realise their actions have caused or are likely to cause material or serious environmental harm from pollution, to report the matter to the EPA as soon as possible. This requirement applies even if reporting an incident might involve admitting to something unlawful. To encourage compliance with this provision, Section 150 of the Act provides that this information is not admissible in evidence against the person in a prosecution under the Act.

In the event of a notification under Section 23 (including Section 23A) an assessment must be commenced within 3 months of the notification to determine the extent of any impacts and be completed within 6 months or timeframe agreed by the EPA.
Where a consultant/auditor becomes aware of land that is contaminated in such a way as to present, or to be likely to present—(a) a significant risk of harm to human health; or (b) a risk of material environmental harm or serious environmental harm the consultant/auditor must inform their client of their obligation to notify the EPA under section 23A of the Act.

Where a site has been notified under section 23A of the Act and off-site impacts have been identified the relevant person must notify the impacted land custodians of the nature, extent, magnitude and risks of the contamination and their proposed remediation/management measures.

8.1.3 Duty to notify the existence of contaminated land

A lessee, sublessee or occupier of land must notify the EPA (under Section 23A of the Act) in writing when:

» they become aware that the land is contaminated; and

» the land is contaminated in such a way as to present or be likely to present a significant risk of harm to human health and/or a significant risk of material or serious environmental harm.

A notice under this Section of the Act should specify:

» the location of the land (block, section and suburb or street address)

» the activity that has contaminated the land

» the nature of the contamination

» the nature of the risk

» any other matter the person making the notification believes is relevant to the contamination.

Examples of indicators of contamination or harm may include:

» case(s) of a biologically plausible illness or health impairment among people who have had exposure to a particular contaminated site

» the presence of chemicals on or in surface water or groundwater at the site (for example, abnormal colouration of the water, odours emanating from the water)

» visible signs of toxic responses to contaminants in flora and fauna (for example, unusual numbers of birds dying on or near the site, abnormal domestic animal or wildlife behaviour, dead vegetation within or adjacent to areas of otherwise normal growth)

» liquid or solid chemicals or chemical wastes found on or in the soil during site works

» unusual odours emanating from the soil

» the entry of chemicals into on-site or off-site service trenches

» the presence of discarded explosive materials on site

» the presence or the storage of bulk liquid dangerous goods on the site with potential for leakage or spillage

» the presence of illegal and/or uncontrolled landfilling on site

» evidence of off-site migration of contaminants into adjacent or nearby environments (for example, migration to residential areas, creeks, rivers, wetlands, sediments or groundwater).

The notification of asbestos contamination is required where:

» friable asbestos is present in or on soil on the land

» the level of asbestos (% weight for weight) in an individual soil sample is equal to or above the health screening level of friable asbestos in soil (0.001%) specified in Section 4.8, Schedule B1 of the ASC NEPM, made by the NEPC

1 see Appendix D for notification form

» a person has been, or foreseeably will be, exposed to greater than 0.01 fibres/mL of asbestos fibres by breathing them into their lungs.

This is not an exhaustive list and there may be additional indicators of harm evident.

The Act provides for penalties for non-compliance with this duty to notify (section 23A).

The notification should be completed using the form provided in Appendix D of this EPP.

Note: The information provided in the notice is not admissible as evidence in any proceedings against the person for an offence under the Act. However this does not prevent the EPA from issuing an order to assess or remediate contaminated land.

8.2 ENVIRONMENTAL MANAGEMENT INSTRUMENTS

The Act creates a number of environmental management instruments. An explanation and general policies on the use of the instruments is described in Section 10 of the General EPP. The application of these instruments to contaminated land is described below.

8.2.1 Environmental authorisations

Environmental authorisations (Part 8 of the Act) are a form of licence to conduct an activity (Schedule 1 of the Act) which has a significant potential to cause environmental harm, and sets out conditions under which the activity must be conducted. Environmental authorisations are required for activities which have the potential to cause contamination. Examples of activities which have the potential to adversely impact on human health and the environment, and which require an environmental authorisation under the Act, are:

» Commercial incineration of wastes (including medical, chemical and municipal wastes)
» Commercial landfills
» Sewerage treatment works
» Petroleum storage
» Electricity generation
» Commercial use of chemicals
» Preservation of timber
» Electronic waste treatment
» Operation of an outdoor rifle range

For contaminated land an environmental authorisation is required for the following activities:

» the treatment (other than by incineration), storage or handling of more than 1 000 m³ of contaminated soil from land outside the parcel of land where the contaminated soil is treated, stored or handled
» the treatment (other than by incineration), storage or handling of more than 10 000 m³ of contaminated soil from land.

8.2.2 Environmental protection agreements

Environmental protection agreements are formal, but non-contractual, agreements under Part 7 of the Act between the EPA and businesses. The EPA may request a person voluntarily conducting an assessment of contaminated land to enter into an environmental protection agreement under Section 38 of the Act. The terms of such an agreement would depend on the potential nature and extent of the contamination and the location of the site.
An environmental protection agreement would include requirements for the assessment, remediation (if required) and independent environmental audit to ensure the site is suitable for the intended and permitted uses. For example, there are specific guidelines dealing with the assessment and validation of sites containing above and below ground fuel storage tanks. The EPA endorses the use of the ASC NEPM for the assessment of sites containing or suspected of containing fuel storage tanks. Information sheets containing the EPA requirements for sites containing above ground and underground fuel storage tanks and the disposal of soil from these sites can be found at www.accesscanberra.act.gov.au.

An environmental protection agreement can also be entered into as a means of enforcing an ongoing site management plan. Section 9.3.6 of this EPP outlines the procedures to be considered to ensure the legal enforceability of a site management plan required by a site assessment and/or an independent environmental audit of contaminated land. This policy applies to land where, following a contaminated land assessment, ongoing management is required.

Non-compliance with an agreement may result in the EPA issuing an environment protection order under the Act to ensure compliance.

### 8.2.3 Environment protection orders

An environment protection order is an instrument issued by the EPA under Section 125 of the Act, where the EPA is satisfied that the person has breached the Act or an environmental authorisation condition. The EPA may issue an environment protection order for land that is known to be contaminated where the land is still suitable for its current use (or another approved use) to permit the current use (or another approved use) subject to compliance with certain conditions.

This option may be adopted where:

- the site would not present, or would not be likely to present, a significant risk of harm to human health or a significant risk of material or serious environmental harm
- the site would not present, or would not be likely to present, a significant risk of harm to human health or a significant risk of material or serious environmental harm while measures for its containment continue.

An example of this is where an assessment finds that an industrial site is contaminated with hydrocarbons (i.e. petroleum products) in excess of levels suitable for certain sensitive land uses (for example, residential) but below those suitable for its current use. In this case the conditions in an environment protection order may include that provided the current land use continues and measures employed to contain and monitor the contamination are in place the site would not pose a significant risk of harm to human health or the environment.

### 8.2.4 Other environmental management instruments

Enforceable undertakings (Part 14A) are an alternative to infringement notices and criminal prosecutions. They are voluntary binding agreements that must be proposed by an alleged offender and accepted by the EPA. An enforceable undertaking requires the alleged offender to undertake tasks to settle an alleged contravention of the Act and remedy the harm to the environment and the community.

The other environmental management instruments, environment improvement plans (Division 9.1), emergency plans (Division 9.3) and financial assurances (Division 9.4) are unlikely to be used in managing contaminated land.

### 8.3 SPECIFIC CONTAMINATED SITES LEGISLATIVE PROVISIONS

#### 8.3.1 Assessment, remediation and costs

Division 9.5 of the Act outlines provisions allowing the EPA to order an assessment and/or remediation of land, notification of orders for assessment or remediation and choice of appropriate person. See Section 9.1, 9.2 and 9.5 of this EPP for further information on assessment and remediation orders.
Division 9.6 of the Act outlines provisions relating to the recovery of costs associated with assessment or remediation. See Section 9.7 for further information.

8.3.2 Assessment of harm

The EPA may consider a range of matters in assessing whether land is contaminated with one or more substances in such a way as to present, or be likely to present, a significant risk of harm to human health or a significant risk of material or serious environmental harm, under Section 91B of the Act. These include:

- whether the contamination of the land has already caused harm
- whether the substances are toxic, persistent or bioaccumulative or are present in large quantities or high concentrations or occur in combinations
- whether there are routes by which the substance may proceed from the source of the contamination to a human being or other aspects of the environment
- contamination to a human being or other aspects of the environment
- whether the uses to which the land and adjoining land are currently being put are such as to increase the risk of harm
- whether the use of the land and the land adjoining it, being a use permitted by the lease to which the land is subject, is such as to increase the risk of harm
- whether the substances have migrated or are likely to migrate from the land (whether because of the nature of the substances or the nature of the land)
- the contents of this EPP (and any other EPP relating to contamination and remediation)
- any relevant NEPM, in particular the ASC NEPM.

For indications of contamination in soils and/or water (including groundwater), which would be considered to present a significant risk of harm to human health, see the Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (NSW), section 2.2.1 Indicators of Contamination. This guideline is available from, [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).

The General EPP also provides guidance on whether material or serious environmental harm has occurred. For example, if the remedial action required to address contamination at a site exceeds $5,000 or $50,000, the contamination is deemed to have caused material environmental harm or serious environmental harm respectively.

8.3.3 Appropriate person

Consistent with the polluter pays principle (section 3D(1)(e)), the Act introduces the concept of an appropriate person (Section 91I) to rank the responsibility for contaminated land.

The appropriate person(s) is chosen in the following order:

- the person(s) who was responsible for contamination of the land or, if not practicable
- a lessee or sub-lessee of the land (whether or not the person had any responsibility for such contamination); or, if not practicable
- a notional lessee of the land (whether or not the person had any responsibility for such contamination).

It is possible that an appropriate person cannot be chosen because the person(s) cannot be identified or located, or the person(s) does not have adequate resources to remediate the contamination.

Where an appropriate person cannot be identified, the ACT Government in the case of Territory land and the Commonwealth Government in the case of National land shall take the necessary action to manage the assessment, remediation and audit of the land.
9. SITE ASSESSMENT AND REMEDIATION

9.1 WHEN IS A SITE ASSESSMENT REQUIRED?

A site assessment would normally be required where there is a change to the lease purpose, or land use where the past use of the land may have caused contamination. See Appendix A for a list of specific industries and land uses that have previously been associated with contaminated land.

The exact level of risk of land contamination associated with any particular industrial, commercial or agricultural practice will depend upon the standard of management, including the past regulatory framework and safety procedures employed at individual sites.

In the ACT an assessment is usually triggered by a change in lease purpose or land use where potentially contaminating activities have occurred at a site. In these cases the assessment is undertaken voluntarily by the lessee, sublessee, land custodian (for unleased land) or developer who will benefit from the change in use or redevelopment of the site. An example being the redevelopment of disused service station sites throughout the ACT. Site specific requirements are included in the development approval granted by the ACT Planning and Land Authority regarding the assessment, remediation (if required) and independent audit of a site to ensure it is suitable for the intended and permitted uses.

An assessment can be carried out voluntarily; this is the preferred option of the EPA. A voluntary assessment may require an environmental audit depending upon the complexity of the issue. The EPA can also order an assessment (under Section 91C of the Act) to be carried out by the appropriate person if required. An environmental audit must be carried out on an assessment order issued by the EPA. Any site subject to an assessment order for contamination will be placed on the Register of Contaminated Sites (register) (see Section 11.1 of this EPP for further information).

Where a voluntary assessment is proposed, the person may also be asked to enter into an environmental protection agreement with the EPA under Section 38 of the Act. The terms of such an agreement would depend on the potential nature and extent of the contamination and the location of the site.

An assessment may also be required where the EPA:

- has been notified of the existence of contaminated land (under Section 23A of the Act)
- has reasonable grounds for believing that land is contaminated and the contamination presents, or would be likely to present a significant risk of harm to human health and/or a significant risk of material or serious environmental harm.

In these cases the EPA in the first instance would request that the appropriate person enter into an environmental protection agreement to undertake a voluntary assessment of the land. If agreement cannot be reached the EPA may (under Section 91C of the Act):

- order the appropriate person to conduct an assessment of the land contamination
- conduct such assessment itself.

The method of choosing an appropriate person is explained in Section 8.3.3 of this EPP.

Refer to Section 8.3.1 of this EPP for further information regarding the content of an order to assess land contamination.

The Act provides for penalties for non-compliance with the requirements to conduct an assessment (Section 91C) and to commission an environmental audit (Section 76(2)) of the assessment.

3 Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites, ANZEEC & NHMRC 1992
In all cases the person proposing to undertake an assessment or environmental audit of contaminated land should discuss the proposal with a suitably qualified consultant, familiar with contaminated land assessments. If a change in lease purpose or land use for the site is proposed then the proposal should also be discussed with the EPA and the relevant planning authority.

Note: If an assessment finds that the land is contaminated in such a way as to present or be likely to present a significant risk of harm to human health and/or a significant risk of material or serious environmental harm, the lessee, sublessee or occupier is required to notify the EPA. This duty to notify is discussed in more detail in Section 8.1.3 of this EPP.

The EPA Information Sheets and Guidelines (see Section 12 of this EPP) on certain contaminants and activities, including sites impacted by asbestos and for the abandonment of fuel storage tanks, are available at www.accesscanberra.act.gov.au.

Note: There are specific requirements for the abandonment of fuel storage tanks, including that approval for the method of abandonment is required from Access Canberra. The removal of fuel storage tanks from a site also constitutes development under the Planning and Development Act 2007 and development approval is required for the works.

9.2 WHEN IS REMEDIATION OF CONTAMINATED LAND REQUIRED?

Remediation is required where an assessment indicates there is a significant risk of harm to human health or significant risk of material or serious environmental harm.

Remediation of contaminated land can be undertaken voluntarily, which is the preferred option of the EPA. For complex sites the EPA will generally take a cautious approach and require an environmental audit on voluntary remediation.

Where the EPA has reasonable grounds for believing that the land to which an audit (Section 91C of the Act) relates is contaminated and this contamination presents, or would be likely to present, a significant risk of harm to human health and/or a significant risk of material or serious environmental harm the EPA may (under Section 91D of the Act):

- order the appropriate person to remediate the land contamination
- conduct the remediation itself.

The method of choosing an appropriate person is explained in Section 8.3.3 of this EPP.

Refer to Section 9.5 of this EPP for further information regarding the content of an order to remediate land contamination.

An environmental audit must be carried out on remediation ordered by the EPA. Any site subject to a remediation order will be placed on the register.

Remediation in relation to contaminated land includes:

- preparing a long-term management plan
- removing, dispersing, destroying, reducing, mitigating or containing the contamination
- eliminating or reducing any hazard arising from the contamination, including restricting access to the land.

An example of this was the remediation of sheep dip sites in the ACT in the 1990s that had been redeveloped for residential housing. The assessment determined there was a significant risk to human health from elevated levels of arsenic in the soils, and remediation was required to protect human health and the environment.
Due to the complex nature of contaminated land remediation, remedial actions are developed on a site-specific basis utilising best practice methodology and remedial techniques. The preferred order of options for site remediation and management are:

» on-site treatment of the soil and or water (including groundwater) so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level

» off-site treatment of excavated soils which, depending on the residual levels of contamination in the treated material, is then returned to site, removed to an EPA approved site for beneficial re-use or removed as waste to an EPA approved landfill.

» mitigation of the risks associated with contamination by engineering controls.

In the ACT the EPA manages an approval process for controlling the beneficial reuse (BRU) of soil off-site and disposal of contaminated soil to licensed facilities.

Information sheets containing the EPA requirements for the disposal of soil and beneficial reuse from these sites can be found at www.accesscanberra.act.gov.au.

Some remediation works, such as the treatment of contaminated soil, may require licensing by the EPA (see Section 8.2.1 of the EPP for more detail). The EPA should be contacted prior to commencing remediation works to determine these requirements.

Actions to remediate contaminated land may range from managing the effects without destroying or removing the contaminants, to a complete clean-up of the site. Examples of actions to manage the effect of contamination are fencing off areas, sealing areas with concrete, capping with clean soil, and covering with well-maintained grass, or changing land use at the site to a less sensitive use.

If the preferred option is clean-up, there are two broad approaches to determining clean-up levels. The first is to decontaminate the site by bringing the level of contamination back to background levels. This approach preserves the multi-functionality of the land, rendering the site suitable for any future use.

The second approach is to set the level of clean-up no higher than necessary to be compatible with the intended or permitted uses of the site. This fit for-use approach recognises that resources are always limited and in some circumstances it may not be necessary or desirable for economic, social or environmental reasons to have the site suitable for any use. For example, if the site were in an industrial area, there may be no benefit in cleaning the site to a level suitable for residential housing.

The principle guideline for the remediation and management of contaminated land in the ACT is the Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites, Australian and New Zealand Environment and Conservation Council and the National Health and Medical Research Council, January 1992 (ANZECC & NHMRC).

9.3 WHAT IS REQUIRED FOR A CONTAMINATED SITE ASSESSMENT?

The purpose of a contaminated site assessment is to determine whether site contamination poses an actual or potential risk to human health and/or the environment, either on or off site, of sufficient magnitude to warrant remediation, or management for the current or proposed uses.

The assessment should be undertaken in accordance with the ASC NEPM by professionals who have relevant qualifications, competencies and experience in site contamination assessments (see Section 9.4 of the EPP for further guidance).

It is recommended that a contaminated site assessment be undertaken in a staged approach based on the level of information required. Each stage of a site assessment should include the relevant level of risk assessment, which requires a comprehensive knowledge of the source, pathway and receptors in each case.
Typically there are three phases involved:

» Phase 1 – Site History and Preliminary Site Assessment
» Phase 2 – Detailed Site Assessment
» Phase 3 – Remediation (including Site Management (if required))

Each phase will determine the need for the subsequent phase.

### 9.3.1 Phase 1 – Site History and Preliminary Site Assessment

The first phase of **contaminated site assessment** involves establishing a site history of potentially contaminating activities. This site history review involves the collation of information, from various sources, to determine if the site is or may have hosted or is likely to have been impacted by a potentially contaminating activity. Where a site history review clearly demonstrates that site activities have been non-contaminating this information can be used to justify not progressing with further assessment.

However, where there is an indication that the **land** may potentially be **contaminated**, as a result of current or past activities, a Preliminary Site Assessment (PSA) should be conducted by a suitably qualified and experienced consultant. A PSA usually includes a desktop study to identify the site characteristics (site location, site layout, building construction, geological setting, historical land uses and activities at the site and on adjacent sites) and a site inspection (including interviews with site representatives).

The PSA should be sufficient to determine contaminants of concern and identify areas of potential contamination, including all sources of potential contamination. The PSA may also include initial sampling to provide a preliminary assessment of site contamination and need for further investigation.

A starting point of a site history review (and a PSA) is consideration of the potentially contaminating activities list (see Appendix A of this **EPP**) and whether the **land** in question has hosted or currently hosts or is adjacent to a site that has hosted or currently hosts a potentially contaminating activity.

The information collected as part of the PSA should result in the development of an initial Conceptual Site Model (CSM) - a representation of site-related information regarding potential or known contamination sources and receptors, and the potential exposure pathways between those sources and receptors. Refer to Schedule B2 of the **ASC NEPM** for more information.

In the ACT, elements to be included in the site history review are:

» a review of historic aerial photographs held by Surveying and Spatial Data, Environment, Planning and Sustainable Development Directorate
» a Contaminated Land Search (see Section 11.3 of this **EPP** and Appendix F)
» a review of Access Canberra records for Dangerous Substances (including fuel and chemical storage, asbestos, lead paint and PCB electrical equipment)
» a groundwater bore search of records held by the **EPA** (see Section 11.5 of this **EPP**)
» a search for significant species, vegetation communities and registered trees (see ACTMAPi at: [www.actmapi.act.gov.au](http://www.actmapi.act.gov.au))
» a search of Heritage records (contact the Heritage Unit, Environment, Planning and Sustainable Development Directorate)
» a review of historic plans and/or records (including the site's building file) held by ACT Government and Commonwealth Government departments
» a review of current and former uses of the site
» discussions with current and past land managers, lessees, sublessees and site users
a site inspection to identify the presence or otherwise of above ground and/or underground fuel storage tanks (note: commercial buildings built before the arrival of natural gas to the ACT in the early 1980's were generally heated using fuel oil heating systems associated with above and below ground fuel tanks, only tanks greater than 50,000L in capacity were required to be registered with Access Canberra) identification of potential contaminant types based on site uses, site history and building records.

To contact the government agencies detailed above contact Access Canberra on 13 22 81.

For buildings constructed prior to 2004 this must also include a Hazardous Materials Survey. The Hazardous Materials Survey should be undertaken in accordance with the requirements of Section 8.1 of the EPA's Hazardous Materials EPP, November 2010.

An appraisal of the site history is fundamental to the preliminary assessment and should be used to assess potential land contamination. It is important to review and assess all relevant information about the site, including information obtained during a site inspection.

Where a complete site history clearly demonstrates that site activities have been non-contaminating, there may be no need for further investigation or site sampling. However, where contaminating activities are suspected or known to have occurred, or if the site history / records are incomplete, it may be necessary to undertake a preliminary sampling and analysis program to assess the need for a detailed site investigation.

9.3.2 Phase 2 – Detailed Site Assessment

A detailed site investigation involves the taking of samples from air, soil and surface and/or groundwater to confirm the presence or absence of contamination identified or suspected in the Phase 1 investigation.

The investigation should involve the development of Data Quality Objectives (DQO) based on an initial Conceptual Site Model and be undertaken in accordance with a Sampling and Analysis Quality Plan (SAQP). The SAQP sets the sampling program and DQOs as well as the Quality Assurance (QA) and Quality Control (QC) methodologies to be employed to manage the field work stage of the assessment. See Schedule B2 of the ASC NEPM for further guidance.

A number of sampling events may be required to delineate the contamination and determine the risk to human health and/or the environment which may require changes to the sampling methodology and should be reflected by amending the SAQP.

Note: in accordance with the ASC NEPM (Schedule B6), the assessment process for groundwater contamination differs from that of land contamination in that there is greater emphasis on suitability for current and realistic future uses, compared with the emphasis on current and intended or permitted uses for soil assessment.

The ASC NEPM Field Checklist, which is part of the ASC NEPM Toolbox provides details of the parameters that should be collected in the field based on the objectives of the investigation and the contaminants of concern.

The detailed site investigation should be comprehensive enough to identify the nature of the contamination and delineate its lateral and vertical extent to a sufficient degree that an appropriate level of human health and environmental risk assessment may be undertaken and, if necessary, to provide the basis for the development of an appropriate remediation or management strategy.

Where management is proposed for residual contamination and not remediation, the consultant should justify the approach and ensure the management measures are enforceable and appropriate to the current and/or future uses or development of the site. Any assessment must consider all uses permitted for a sites zoning under the ACT Territory Plan 2008 and where the assessment does not find a site suitable for certain uses these uses must be clearly excluded in the assessment report’s findings.

The NEPM Toolbox includes a draft document on the ‘Key Principles for Remediation and Management of Contaminated Sites’ which may be of assistance in determining whether remediation and/or management will be implemented at a site, based on the findings of the detailed site investigation.
9.3.3 Phase 3 - Remediation (including management)

If site contamination is found to pose an actual or potential risk to human health and/or the environment, either on or off the site and therefore the site may not be suitable for its current or proposed uses, remediation and/or management should be considered.

The method of remediation and/or management should take into consideration the hierarchy of options for site clean-up and management as defined under Principle 16 of the NEPM, and may vary depending on:

- the type and extent of contamination
- where the contamination is (soil, sediments or ground/surface water)
- the risk that the material poses.

Where remediation involves asbestos, the WA Health Department publications including the Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia (2009) should be considered.

Complex remediation should be supported by the development and implementation of a Remediation Action Plan (RAP). The key components of a RAP are:

- Identification of the key stakeholders and responsibilities including consultation
- Development of remediation goals and clean-up acceptance criteria
- Assessment of the remediation options and determination of the preferred remediation option
- Documentation of the remediation methodology including any regulatory permit/licensing requirements
- Development of an Environment Management Plan
- Defining the validation program to demonstrate the successful completion of the remediation, including monitoring.

9.3.4 Validation

Following remediation, it must be proven that remediation goals have been meet and remnant contamination does not present an unacceptable risk to human health and/or the environment based on the current or proposed land use, through appropriate sampling of soil, groundwater and/or vapour. Validation of groundwater quality requires ongoing monitoring over a pre-determined period of time.

9.3.5 Monitoring

Where monitoring is necessary to demonstrate that remediation is occurring or has been successful, monitoring should take into account a range of factors that may affect results, including but not limited to seasonal changes in groundwater levels, artifacts from sampling and changes in conditions due to remediation.

A contingency plan is often required (i.e. a change in remedial method or further remediation) if the chemical levels identified during monitoring exceed a pre-determined trigger level.

9.3.6 Site Management Plan

A Site Management Plan (SMP) is different to an Environment Management Plan (EMP). An EMP details the measures to be adopted during remedial works. A SMP is required where ongoing monitoring or management of a site is required following remedial works due to remaining contamination on or off site.

SMP’s must be practical to implement and enforceable. To ensure this the EPA has developed an Institutional Controls Policy as detailed in the following section of this EPP.
9.3.7 Institutional Controls

Following the environmental assessment, remediation and audit of contaminated land, there are instances where ongoing site management is required. These management requirements, as detailed in a SMP, may be passive or active and must be implemented to ensure any residual contamination is appropriately managed and does not pose an ongoing and/or unacceptable risk to human health and/or the environment.

For an independently audited site, the auditor must, as a requirement of their accreditation, ensure that any ongoing management plan is reasonably legally enforceable.

From a policy perspective this would equally apply to sites audited by the EPA to ensure any ongoing SMP is legally enforceable.

To ensure SMPs are implemented and are legally enforceable they require appropriate institutional controls to be in place. These institutional controls may include conditions within the crown lease and notation on title for a site, entering into an Environmental Protection Agreement (Agreement) under Section 38 of the Act with the land custodian or, if necessary, serving of an Environment Protection Order under Section 125 (3) of the Act.

It has been the EPA’s experience that by the nature of their redevelopment, sites on leased land subject to ongoing site management requirements can be either managed by a single entity or become unit titled and managed by an Owner’s Corporation represented by the Body Corporate. Due to the probable large number of owners within unit titled complexes and the possible frequent change of ownership of the individual titles it would be impractical to control these sites using the provisions under the Act listed above, that is, through Environmental Protection Agreements or Environment Protection Orders.

9.3.8 Unleased Land, Government Leased Land, Leased Land - Subject to Interim Development

For sites requiring ongoing management which are on unleased Territory land, on leased land being managed by an ACT government agency or on leased land subject to interim development (for example, Greenfields developments, multi unit developments or mixed use developments which are subject to interim development prior to the land’s sale and/or the establishment of the Body Corporate) an Agreement under section 38 of the Act should be entered into between the EPA and the land custodian.

The Agreement will detail the nature of the substances remaining at the site (or off site), specific site details and the required management measures. The Agreement would include a requirement that the site be managed in accordance with the EPA/Auditor endorsed SMP and that management continue until the EPA (and the Auditor for independently audited sites) agrees in writing that the SMP is no longer required.

Should the Agreement not be complied with, an Environment Protection Order under Section 125 (3) of the Act could be issued on the land custodian to ensure the site continues to be managed appropriately.

For sites where land custodianship falls to business units within the ACT Government Directorates the Agreement would also specify that these management requirements be recorded in the TCCS Integrated Asset Management System in accordance with its Procedure for the Management of Contaminated Assets Version 1.2 dated 31 May 2013 (as updated from time to time).

The transfer of responsibility for SMPs subject to an Agreement (or Environment Protection Order) can only occur with the written acceptance of the EPA.

9.3.9 Leased Land – Private

Where the EPA and/or Auditor require that leased land be managed in accordance with an ongoing SMP the lessee or sublessee should request, through the ACT Planning and Land Authority, a lease variation.

The variation application should request that the conditions of the site’s lease be updated to include a condition that the site be managed in accordance with an EPA/Auditor endorsed SMP and that management continue until the EPA (and the Auditor for independently audited sites) agrees in writing that the SMP is no longer required.
Following the variation of the lease the EPA will register a Miscellaneous Application Encumbrance for the site with the ACT Land Titles Office. The application must reference, and include a copy of, the SMP (and the Site Audit Statement for sites subject to an audit by an EPA approved Auditor).

Commonly for unit titled sites the responsibility for the SMP initially falls to the developer and then is transferred to the Owner’s Corporation. This is because when a unit’s plan is registered the Owner’s Corporation is created and it is automatically responsible for all common property at the site.

To ensure that the Owner’s Corporation (and thus the unit owners) understand their obligations and responsibilities under the SMP the following requirements (or similar) must be met prior to the EPA accepting transfer of the SMP from the developer to the Owner’s Corporation:

» at the inaugural meeting of the Owner’s Corporation a resolution is passed accepting that it (the Owner’s Corporation) is responsible for the requirements of the SMP

» the resolution is provided to all unit owners and

» the budget for the unit complex makes allowances for the assessment and/or remediation (including monitoring) costs required under the SMP.

It is the EPA’s preference that at least some of this budget is provided by the developer for a period of 12 to 24 months from the time of handover.

In the event that the lessee or sublessee does not apply for a lease variation and/or agreement for the transfer of the SMP is not reached between the developer and the Owner’s Corporation the EPA may consider serving an Environment Protection Order under Section 125(3) of the Act on the appropriate person.

Note: Sites subject to independent audit requiring ongoing management or sites where an Environment Protection Order under section 125(3) of the Act has been issued will be placed on the register under section 21A of the Act. These sites can only be removed from the register following receipt and acceptance by the EPA of advice from an EPA approved auditor that ongoing management of the land is no longer required.

All sites are recorded on the EPA Contaminated Sites Management Database and Geographic Information System (see Section 11 of this EPP for further details).

9.4 WHO CAN CONDUCT AN ASSESSMENT?

Specialist environmental consulting firms drawing on a number of disciplines can undertake assessments of contaminated sites. The consultant must have a range of professional competencies consistent with the requirements of Schedule B (9) of the ASC NEPM and be able to recognise the need for supporting professional advice beyond their expertise when assessing contamination and its effects on human health and the environment.

It is accepted that one person will not have all the knowledge required to assess a complex site, therefore their access to relevant expertise in other fields (e.g. toxicology, hydrology etc.) is critical to a thorough site assessment. The extent to which these competencies apply depends on the complexity of the contamination issues and the particular site.

9.4.1 Consultant certification

While the EPA cannot recommend specific consultants, the use of appropriately certified consultants is recommended.

Contaminated land consultant certification schemes have been developed nationally to ensure those consultants dealing with contaminated sites have the necessary competencies to carry out the work. These certifications include the Environment Institute of Australia and New Zealand’s (EIANZ) Contaminated Land Assessment Specialist Certified Environmental Practitioner (CLA Specialist CEnvP) scheme and the Soil Science Australia (SSA) Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) certification.

The EPA recognises the CLA Specialist CEnvP and SSA certifications as providing a process for certifying contaminated land consultants to a minimum standard of competency.
9.5 ORDERS FOR ASSESSMENT OR REMEDIATION OF CONTAMINATED LAND

An order to assess or remediate land contamination must be issued in writing and specify:

- the person to whom it relates
- the land to which it relates
- the period within which the assessment or remediation is to be conducted
- the nature of the actual or possible contamination
- the action that the person subject to the order must take in assessing or remediating and reporting
- any other requirements the EPA considers appropriate having regard to the nature and extent of the contamination and the physical attributes of the land.

The actions referred to in the fifth point of the previous paragraph may include:

- serving a notice of the order on the occupiers of land access to which is necessary for the person to carry out the assessment or remediation and, if an occupier is not the lessee of that land, serving a notice on the lessee or sub-lessee (this might be a case where the order is being served on a polluter who is not the lessee or sub-lessee of the land)
- making progress reports on the assessment or remediation to the EPA
- advertising and conducting meetings to give progress reports to the public, and to receive public comment, on the assessment or remediation.

A person to whom an order to assess or remediate the land has been served must:

- conduct, within the time period specified in the order, the assessment or remediation in accordance with the prescribed standards and procedures for carrying out the assessment or remediation, including standards and procedures specified in a relevant National Environment Protection Measure and in accordance with the terms of the order
- commission an environmental audit of the assessment or remediation
- provide to the EPA within 10 working days from the date of the order the name of the auditor who will conduct an environmental audit of the assessment or remediation (such an audit can only be conducted by an auditor approved for this purpose under Section 75 of the Act).

9.6 NOTIFICATION OF SITE ASSESSMENT OR REMEDIATION (INCLUDING ACCESS TO RELEVANT DOCUMENTS)

Section 91E and Section 91F of the Act determine notification requirements. They also set out the mechanism through which certain documents related to a specific site are made available. The EPA provides written notification to the occupier and, if the occupier is not the lessee or sublessee, to the lessee or sublessee of any land adjacent to the land in relation to which an order to assess or to remediate has been issued or which is being assessed or remediated by the EPA.

The intention of Subsection 91E(1) and Subsection 91E(2) of the Act are that the notice will:

- state that assessment or remediation is taking place
- invite the person to whom the notice is given to make a written submission to the EPA within 21 days from the day after the date of the notice
identify where copies of the following documents (if available) may be inspected:
- a report of the outcome of the assessment
- a progress report on the assessment
- an audit of the assessment
- a report of the outcome of the remediation
- a progress report on the remediation
- an audit of the remediation

The documents specified above are available for inspection as detailed in Section 19 of the Act.

9.7 COST OF ASSESSMENT AND REMEDIATION – WHO IS FINANCIALLY LIABLE?

Where the EPA has conducted an assessment or remediation of contaminated land itself, the EPA may (under Section 91K of the Act) recover costs of such assessment or remediation from an appropriate person.

If the EPA undertook assessment or remediation of contaminated land, in lieu of this being done by an insolvent owner, the EPA may (under Section 91L of the Act) recover costs of such assessment or remediation in priority to other parties. This provision only applies in the very limited circumstances where a liquidator or trustee in bankruptcy appointed under Commonwealth law has disclaimed the land as onerous property (i.e. where the liquidator or trustee believes the land has a negative worth).

When the EPA serves an order to assess or remediate contaminated land on a person and the person has incurred costs as a result of this action that person may (under Section 91M of the Act) recover from another responsible party the whole or a portion of those costs through the courts. This provision applies only if the person is either not responsible or only partially responsible for the contamination. Section 91N of the Act identifies those persons responsible for the contamination in any proceedings under Section 91M and creates a rebuttable presumption that a previous occupant of land, who carried out activities generating the substances that have caused contamination of the land, is responsible for the contamination.

Lessees, sublessees or occupiers of the land may recover (under Section 91O of the Act) loss and damages from a person conducting assessment or remediation work on their land. This situation may arise where the lessee, sublessee or occupier has consented to a person (typically a former lessee, sublessee or occupier who was the polluter) entering the land to comply with an order to assess or remediate.

The EPA may apply (under Section 91P of the Act) to the Supreme Court for an order that a person who was a director of a wound-up body corporate be made personally liable for the costs of assessment or remediation. The court may make such an order if satisfied that the body corporate failed to comply with an order to assess or remediate, or only partially completed the order, or was wound up to avoid compliance.

The EPA may apply (under Section 91Q of the Act) to the Supreme Court for an order that a person who was a director of a body corporate be made personally liable for the costs of assessment or remediation. The court may make such an order if satisfied that the body corporate of which the person was a director disposed of the land to avoid having to comply with an assessment or remediation order in respect of the land.

Under Section 91R of the Act the EPA may pursue a corporation through the court, where a holding company of the corporation is wound up to avoid costs of complying with an order to assess or remediate.
10. ENVIRONMENTAL AUDITS

10.1 WHAT IS A SITE AUDIT?

A site audit of contaminated land is an independent review of an assessment and/or remediation by an approved contaminated land auditor.

An audit can be conducted for the purpose of determining any one (or more) of the following matters, including:

- the nature and extent of any contamination of the land
- the nature and extent of the assessment or remediation
- what assessment or remediation remains necessary before the land is suitable for any specified use or range of uses
- the comprehensiveness of a remedial action plan for contaminated land.

On completion of an audit, the auditor is required to issue a site audit statement (or certificate of environmental audit). An ACT specific site audit statement template is provided at Appendix E. Prior to issuing a site audit statement, the auditor must complete a site audit report that summarises the basis and rational for the conclusions in the site audit statement.

The main purpose of an audit is to determine whether a site is suitable for a particular use or range of uses. Any audit must consider all uses permitted for a site under the ACT Territory Plan 2008 and where the assessment does not find a site suitable for certain uses these uses must be clearly excluded in the audit findings; and Site Audit Statement (see Appendix E) if required.

Note: A draft site audit statement and site audit report (along with an on-going site management plan, if appropriate) must be submitted to the EPA for comment prior to the submission of the final documents.

10.2 WHEN IS A SITE AUDIT REQUIRED?

An independent audit is required if the EPA has issued an order to assess (under Section 91C of the Act) or remediate (under Section 91D of the Act) contaminated land. The EPA may also require an audit (under Section 76 of the Act), such as a condition of a development approval, or request an auditor's statement (under Section 76A of the Act). All audited sites are entered on the register (Section 21A of the Act).

The EPA can also require a person to undertake an audit under Subsection 76(1) (a) of the Act. This may occur where the EPA wishes to verify a voluntary assessment or remediation of contaminated land.

An audit is usually required when a more sensitive land use is proposed for a site where past activities may have caused land contamination. For example where a disused sewage treatment works is to be redeveloped for residential or commercial purposes. Sewage treatment works have been associated in the past with significant contamination of soils and groundwater, which may pose a significant risk of harm to human health and/or the environment. In this case an assessment would be required, followed by an independent audit to certify that the site is suitable for the intended and permitted uses.

Generally the EPA will take a precautionary approach where past activities at a site may have resulted in contamination of the land, and may require that a site audit be conducted to ensure the accuracy of any assessment or remediation. The resultant site audit statement serves as an assurance to the actual or prospective lessees/sublessees/occupiers of the site, including government, financial institutions and the community that the site is suitable for a particular land use or range of uses.
10.3 WHO CAN UNDERTAKE A SITE AUDIT?

Section 75 of the Act states the provisions for approving contaminated land auditors. The auditors approved under Section 75 of the Act are suitable for the purposes of undertaking environmental audits of contaminated land. Only auditors meeting these provisions can undertake statutory audits under the Act.

By virtue of Section 75, Subsection 91C (4)(b) and Subsection 91D (4)(b) of the Act, an auditor conducting an audit of an assessment or remediation of contaminated land must be approved by the EPA.

Subsection 91C(7) and Subsection 91D(7) stipulate that the EPA will not approve an auditor for the purpose of Section 91C and Section 91D of the Act unless the auditor meets the prescribed criteria. As at this time there are no prescribed criteria for that purpose, it is sufficient if auditors meet the criteria specified in Section 75 of the Act (i.e. accredited as a contaminated land auditor by another state or territory).

An auditor accredited by another state or territory, when undertaking a statutory audit under the Act, must undertake the audit in accordance with the requirements of the accrediting state or territory.

In accordance with Subsection 91C(5) and Subsection 91D(5) an auditor preparing an audit of an assessment or remediation must consider:

- the provisions of the Act and Regulations
- the permitted and approved uses of the land to which the assessment relates (Note – it is extremely important that the auditor discuss the certification criteria for a particular site with the EPA and relevant planning authority prior to issuing the draft site audit statement to ensure compatibility with land use policy and legislative requirements in the ACT)
- the degree or extent of contamination
- any relevant EPPs
- any relevant NEPMs.

Under Subsection 91C(4)(b) and Subsection 91D(4)(b) of the Act a person on whom an order to assess or remediate has been served must also commission an environmental audit of the assessment or remediation. Additionally, under Section 76 of the Act the EPA may require an environmental audit of contaminated land. This Section may be invoked where an assessment or remediation is not automatically followed by an audit, such as a voluntary assessment and/or remediation.

Section 76A of the Act requires an auditor to provide to the EPA, within 7 days of receiving a request under this or another Act (for example, conditions of approval in a Notice of Decision under the Planning and Development Act 2007) to carry out an audit, including:

- the name of the person making the request
- reasons for the person making the request
- the location of the land to which the audit relates
- an estimation of the time within which the audit will be completed.

Section 76A also requires that site audit statements (Appendix E) be provided to the EPA within 15 business days after completion.

The notification should be completed using the form provided at Appendix B in this EPP.

Section 76B of the Act requires the auditor to provide to the EPA, within 60 working days after the end of each financial year, a report about each audit of contaminated land carried out in the ACT under this, or any other Act. The report must be provided in a form approved by the EPA (see Appendix C).

Under Section 91H of the Act the EPA may, by notice in writing, require an auditor to provide further information relating to a specific assessment or remediation. This may be the case where the EPA wishes to verify the findings of the audit or where more information is required to satisfy community concerns.
Under Subsection 76(3) of the Act an auditor shall not carry out an audit for the purposes of Subsection 76(2) of this Act if he or she was involved in the assessment or remediation for a particular site. Additionally, when a potential conflict of interest exists or could be perceived, the auditor must write to the EPA seeking clarification and approval prior to commencing the audit.

Note: Any condition applying to a person accredited as a contaminated land auditor by another State or Territory applies to that person when conducting an audit under the Act or another Act of the Territory.

11. CONTAMINATED SITES REGISTER AND INFORMATION MANAGEMENT

11.1 REGISTER OF CONTAMINATED SITES

Under Section 21A(1) of the Act the EPA is required to keep a register of contaminated sites. The following is to be included on the register:

- an order under Subsection 91C(1) of the Act to assess whether land is contaminated
- an order under Subsection 91D(1) of the Act to remediate contaminated land
- an environmental protection order under Subsection 125(2) or Subsection 125(3) of the Act to manage contaminated land
- an environmental audit required under Subsection 76(2) (EPA may require an environmental audit)
- a notice under Subsection 76A(1) (Requests for auditor’s statements) that an auditor has been engaged to undertake an environmental audit of contaminated land under the Act or another Act. Typically this will be under the Planning and Development Act 2007 where a condition of development approval requires that an auditor be engaged to verify the assessment and any required remediation of a site as part of its redevelopment, for example the redevelopment of former service station sites for residential purposes.

Section 21A(4) also allows for the removal of a site from the register by the EPA when:

- a remediation or environmental protection order to manage any contamination that remains on the site has not been issued by the EPA (within 60 days of the EPA receiving an environmental audit of the assessment)
- if the EPA has not entered into an environmental protection agreement to manage any remaining contamination (within 60 days of the EPA receiving an environmental audit)
- a condition or annotation has not been included on a crown lease or title for the land in relation to an environmental audit to manage any remaining contamination (within 60 days of the EPA receiving an environmental audit of the assessment)
- the EPA has decided (based on advice from an approved auditor) that ongoing management of the land is no longer required.

In any other case a site entered to the register will remain on the register in perpetuity.

The register only records those sites subject to an environmental audit of contaminated land by an EPA approved auditor as required under subsections 76(2), 76A(1), 91C(1), 91D(1), 125(2) or 125(3) of the Act. These sites have been determined to have the greatest potential to cause harm to human health or the environment.

The register is an information device available to the EPA to provide information to the community, practitioners, proponents, and other stakeholders including prospective purchasers, government agencies and planning authorities on the contamination status of a site. The register, environmental protection agreements and orders are publicly available in accordance with Section 19 of the Act.

The register is publicly available online at: www.accesscanberra.act.gov.au.
Section 21A(5) of the Act requires the **EPA** to give written notice of the entry or removal of a site from to the **register** to the Planning and Land Authority and, if the **land** is in a designated area, the National Capital Authority. In addition, to be consistent with other notification requirements, the **EPA** will advertise in the ACT Legislation Register and the ACT Open Government website within 10 working days when a record is entered to, or removed from, the **register**.

### 11.2 CONTAMINATED SITES MANAGEMENT DATABASE AND GEOGRAPHIC INFORMATION SYSTEM

The **EPA** is responsible for recording information held by the ACT Government on **contaminated** sites in the ACT.

The **EPA** maintains two data systems for recording information on sites which are known to be or have been **contaminated**. The data systems also contain records of potential **contaminated** sites which do not present a significant risk of harm while the current **land** use continues (for example, active municipal landfills, historic sheep dips in rural areas or operational service stations). The data systems are the Contaminated Sites Management Database (CSMD) and the Contaminated Sites Geographic Information System (CSGIS).

The CSMD is used as an electronic means of recording correspondence regarding a site subject to a **contaminated land** enquiry (for example a Contaminated Land Search).

The CSGIS is used to spatially record a site that is potentially or known to be **contaminated**. It also includes those sites that have been assessed, remediated and audited, including sites subject to on-going management and sites recorded on the **register** of contaminated sites. For each site basic information on the activity, location, contaminates of concern and status is recorded. Detailed information available is recorded in ACT Government file management systems.

*Note: the records held by the **EPA** do not include all known or potentially **contaminated** sites in the ACT. If the **EPA** has no information on contamination for a particular site this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination. To be completely sure, a person should arrange to conduct an independent **assessment** to absolutely rule out the existence of contamination (see Section 9.3 of this **EPP** for further information on undertaking a preliminary site assessment).*

### 11.3 CONTAMINATED LAND SEARCH

Information on sites recorded in the **register**, CSMD and CSGIS systems is generally available to the public through a Contaminated Land Search. In some cases the information is the intellectual property of the lessee, sublessee or **land** custodian for unleased **land** and is only available with the written consent of these parties (for example assessment reports commissioned by the lessee, sublessee or land custodian).

Information on whether a site is in the CSMD and/or the GIS can be obtained via a Contaminated Land Search:

All Contaminated Land Search requests must be in writing on the required form and must include:

- the name and contact details of the person making the request
- the nature of the request (**land** purchase, due diligence, environmental reports, etc.)
- the site location, including block, section, suburb and division
- the street address (if known).

A Contaminated Land Search form and details on submitting the query, including associated fees, can be found on the Access Canberra website at: [www.accesscanberra.act.gov.au](http://www.accesscanberra.act.gov.au) (search ‘**contaminated land**’).
11.4 LEASE CONVEYANCING OR DUE DILIGENCE ENQUIRIES

To facilitate access to information contained on both the register and CSGIS for land purchases in the ACT, a query is included in the Lease Conveyancing Enquiry administered by the ACT Planning and Land Authority. This query flags whether a site is recorded on the register or the CSGIS and provides contact details where further information is available.

A Lease Conveyancing Enquiry and details on submitting the query can be found on the Access Canberra website at: www.accesscanberra.act.gov.au (search ‘lease conveyancing enquiry’).

When considering the purchase of land or the transfer of a land title, due diligence should be exercised. Any site flagged by the Lease Conveyancing Enquiry should be investigated and EPA records should be checked for information in relation to the particular land title through a Contaminated Land Search.

11.5 GROUNDWATER BORE SEARCH

A register is kept of privately managed water abstraction bores and groundwater monitoring bores within the ACT. For an administrative fee, a search can be undertaken to detect if registered bores are located near an area of interest.

A Groundwater Bore Search form and details on submitting the query can be found on the Access Canberra website at: www.accesscanberra.act.gov.au (search ‘groundwater bore’).

12. GUIDELINES AND OTHER RESOURCES

The following lists relevant publications at the time of preparing this document. From time to time these documents are updated and therefore the most recent versions should be used.

12.1 STATUTORY GUIDELINES

Currently, there are no guidelines, standards or procedures, other than the ASC NEPM, prescribed under the Act or Regulations for contaminated sites. Nonetheless, the guidelines and references listed below constitute a good reference source and should be used, as appropriate, for contaminated land assessment or remediation in the ACT. If there are inconsistencies between any of these guidelines and the ASC NEPM, the latter prevails.

Note: the ASC NEPM only deals with the assessment of contaminated sites and does not provide guidance on the remediation and management of contaminated land. The ASC NEPM was developed to provide a nationally consistent approach to the assessment of contaminated sites. The ASC NEPM supplements the ANZECC & NHMRC 1992 Guidelines for the Assessment and Management of Contaminated Sites, which is the principal guideline for the management of contaminated sites in Australia.

12.2 ACT PUBLICATIONS

» ACT’s Environmental Standards: Assessment and Classification of Liquid and Non-liquid Wastes, June 2000

» Information Sheet No.1 – Contaminated Sites - Decommissioning, Assessment and Audit of Sites Containing Above Ground or Underground Fuel Storage Tanks, February 2014

» Information Sheet No.2 – Contaminated Sites - Requirements for the Assessment and Validation of Former Service Station Sites in the ACT, December 2014

» Information Sheet No.3 – Contaminated Sites - Requirements for the Assessment and Validation of Sites Containing Above Ground or Underground Fuel Storage Tanks in the ACT, December 2014

» Information Sheet No.4 – Contaminated Sites - Requirements for Re-use and Disposal of Contaminated Soil, June 2015
Information Sheet No. 5 – Contaminated Sites – Requirements for Transport and Disposal of Asbestos Contaminated Wastes, February 2014

Information Sheet No. 6 – Contaminated Sites – Management of Small Scale, Low Risk Soil Asbestos Contamination, February 2014

Information Sheet No. 7 – Contaminated Sites – Guidance for Undertaking Preliminary Contamination Investigation for Development Purposes, December 2014

Territory and Municipal Services – Procedure for the Management of Contaminated Assets, May 2013

Environmental Guidelines for Service Station Sites and Hydrocarbon Storage, January 2014

Environmental Protection Guidelines for Construction and Land Development in the ACT, March 2011

General Environment Protection Policy, May 2016

Water Quality Environment Protection Policy, April 2008

Hazardous Materials Environment Protection Policy, November 2010

Environmental Guidelines for the Preparation of an Environmental Management Plan, May 2013

12.3 ANZECC, ARMCANZ, ENHEALTH AND NHMRC PUBLICATIONS


Polychlorinated Biphenyls Management Plan, Australian and New Zealand Environment and Conservation Council, Canberra, April 2003


Guidelines for the Assessment of On-Site Containment of Contaminated Soil, Australian and New Zealand Environment and Conservation Council 1999

Management of Asbestos in the Non-occupational Environment, enHealth 2005

12.4 AUSTRALIAN STANDARDS

AS 4482.1 : 2005 Guide to the investigation and sampling of sites with potentially contaminated soil - Part 1: Non-volatile and semi-volatile compounds

AS 4482.2 : 1999 Guide to the sampling and investigation of potentially contaminated soil - Part 2: Volatile substances

AS 4361.2-1998 : Guide to lead paint management - Residential and commercial buildings

AS/NZS 5667.11:1998 : Water quality - Sampling - Guidance on sampling of groundwater’s

AS/NZS 5667.1:1998 : Water quality - Sampling - Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples
12.5 NSW PUBLICATIONS

» Guidelines for the NSW Site Auditor Scheme (3rd edition), NSW EPA, 2017
» Technical Note: Investigation of Service Station Sites, NSW EPA, 2014
» Sampling Design Guidelines, NSW EPA, 1995
» Guidelines for Consultants Reporting on Contaminated Site, NSW Office of Environment and Heritage, 2011
» Guidelines for the Vertical Mixing of Soil on Former Broad-Acre Agricultural Land, NSW EPA, 1995
» Guidelines for Assessing Former Orchards and Market Gardens, NSW EPA, 2005
» Guidelines for the Assessment and Management of Groundwater Contamination, NSW DEC, 2007
» UPSS Technical Note: Site Validation Reporting, NSW Department of Environment, Climate Change and Water, 2010.

12.6 VICTORIAN PUBLICATIONS

» Groundwater Sampling Guidelines: Publication 669, EPA Victoria, 2000
» Hydrogeological Assessment (Groundwater Quality) Guidelines, Publication 668, EPA Victoria, 2006
» Sampling and Analysis of Waters, Wastewaters, Soils and Wastes, Publication IWRG701, EPA Victoria, 2009

12.7 WA PUBLICATIONS

» Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, WA Department of Health, May 2009

12.8 OTHER PUBLICATIONS

» CRC CARE Technical Reports (www.crccare.com/publications/technical-reports)
» PFAS, National Environmental Management Plan, 2017
## 13. GLOSSARY

The definitions of the terms listed in this glossary are provided to assist in reading this EPP.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assessment</strong> of Site Contamination NEPM</td>
<td>National Environment Protection (<a href="#">Assessment of Site Contamination</a>) Measure 1999 made by the National Environment Protection Council as amended on 16 May 2013.</td>
</tr>
<tr>
<td>EPA</td>
<td>The Environment Protection Authority – a statutory office holder established under Part 2 of the Act to administer the Act</td>
</tr>
<tr>
<td>Environmental authorisations</td>
<td>A form of licence under Part 8 of the Act to conduct an activity (Schedule 1 of the Act) which has a significant potential to cause environmental harm, and sets out conditions under which the activity must be conducted.</td>
</tr>
<tr>
<td>Environmental Protection Agreement</td>
<td>A written agreement with the EPA where the person is, or proposes to conduct an activity listed in Schedule 1 B of the Act or for the purposes of giving effect to the objects of this Act</td>
</tr>
<tr>
<td>Environment Protection Order</td>
<td>An instrument, issued by the EPA where the EPA is satisfied that a person has breached the Act or an authorisation condition, specifying that certain actions be or not be taken</td>
</tr>
<tr>
<td>EPP</td>
<td>Environment Protection Policy</td>
</tr>
<tr>
<td>National Environment Protection Council</td>
<td>A council of Commonwealth, state and territory Ministers established under complementary legislation (the National Environment Protection Act 1994 in the ACT) to make and monitor the implementation of NEPMs</td>
</tr>
</tbody>
</table>
14. REFERENCES

14.1 NATIONAL ENVIRONMENTAL HEALTH FORUM MONOGRAPHS


14.2 SOUTH AUSTRALIAN HEALTH COMMISSION CONTAMINATED SITES MONOGRAPH SERIES


APPENDICES

APPENDIX A – INDUSTRIES AND LAND USES ASSOCIATED WITH CONTAMINATED LAND

Specific industries and land uses that have been associated with contaminated land include:

» abrasive blasting
» acid/alkali plant and formulation
» agricultural/horticultural activities (orchards, vineyards etc.)
» airports
» ammunition manufacture and usage (e.g. shooting ranges)
» asbestos production, handling or disposal
» asphalt/bitumen plants
» battery manufacturing or recycling
» boat/ship building, marinas, slip ways and associated boat yards
» boiler or kiln usage
» brickworks
» cement works
» ceramic works
» chemical manufacture, formulation or storage (e.g. fertilisers, paints, pesticides, photography, plastics, solvents)
» commercial engine and machinery repair sites
» concrete batch plants
» defence establishments and training areas (for example field firing ranges)
» drum re-conditioning works
» dry cleaning establishments
» electrical transformers
» Electronic waste treatment and storage
» electroplating and heat treatment premises
» engine works
» ethanol production plant
» explosives production and storage
» fertiliser manufacturing plants
» field firing ranges (e.g. gun, pistol and rifle clubs)
» fill material imported onto a site from a potentially contaminated source
» fire training facility
» foundry operations
» gas works
» herbicide manufacture
» sites of incidents involving release of hazardous materials
» wool scouring.

This is not an exhaustive list and other activities where hazardous substances were used may have resulted in contaminated land. A good reference is the Assessment of Contaminated Sites NEPM 1999.
APPENDIX B - STATUTORY SITE AUDIT NOTIFICATION FORM

ENVIRONMENT PROTECTION AUTHORITY

STATUTORY SITE AUDIT NOTIFICATION –
Environment Protection Act 1997 section 21B

SITE AUDITORS DETAILS:
Name: ___________________________ Ph: ___________________________
Company: ________________________ Fax: _________________________
Address: __________________________
Accredited by (State Authority): ____________________________________________________________________________
Accreditation No.: ___________________________ File Reference No.: ___________________________

NOTIFICATION:
Notification No.: ___________________________

SITE LOCATION:
Block: ___________________________ Section: ___________________________ Division: ___________________________ District: ___________________________
Deposited Plan No.: ___________________________
Address: ___________________________ Postcode: ___________________________

SITE AUDIT REQUESTED BY:
Name: ___________________________
Company: ___________________________
Address: ___________________________ Postcode: ___________________________
Phone: ___________________________ Fax: ___________________________
Date request received: ___________________________

Notification must be sent to the EPA within 7 days of receiving the request.

ENVIRONMENT PROTECTION AUTHORITY, GPO BOX 158, CANBERRA ACT 2601
NATURE OF STATUTORY REQUIREMENTS:


☐ Type of Instrument imposing the requirement (e.g. assessment order):

☐ A requirement imposed by an environmental planning Instrument (EPI)

Name and number of EPI:

☐ A development approval given under the Planning and Development Act 2007.

Approval authority:

Date approval granted:

Comments:

---

THIS STATUTORY AUDIT SITE AUDIT IS CONDUCTED FOR THE PURPOSE OF DETERMINING:

☐ Land use suitability, and/or

☐ Land use suitability subject to compliance with either an active or passive site management plan, and

☐ The nature and extent of the assessment or remediation undertaken, as the case requires and/or

☐ The nature and extent of any contamination or remaining contamination of the land and/or

☐ What further assessment or remediation, as the case requires, is necessary before the land is suitable for any specified use or range of uses and/or

☐ The suitability and appropriateness of an assessment proposal, remediation proposal, remedial action plan or environment management plan.

Estimated time within which audit will be completed:

I certify that the information supplied in this form and any attached pages is correct.

Signed: ___________________________  Date: ___________________________

ENVIRONMENT PROTECTION AUTHORITY, GPO BOX 158, CANBERRA ACT 2601
AUDITOR'S ANNUAL RETURN - Environment Protection Act 1997 section 76B

Under Section 76B of the Environment Protection Act 1997, the following must be completed for each audit conducted (whether completed or not) under this Act or another Act within the financial year. The completed form must be forwarded within 20 working days after the end of each financial year to: Environment Protection Authority, GPO Box 158, Canberra ACT 2601.

AUDITORS DETAILS:

Name: ____________________________
Address: ____________________________
Ph: ____________________________ Fax: ____________________________
Accredited by (State Authority): ____________________________
Accreditation No.: ____________________________ Audit Reference No.: ____________________________

SITE LOCATION:

Block: ____________________________ Section: ____________________________ Suburb: ____________________________
Address: ____________________________
Size of the site: ____________________________

LAND USE DETAILS:

Land uses permitted under the Territory Plan:

Uses permitted by the lease purpose clause:

Proposed lease purpose changes or changes to the Territory Plan:
LESSEE(S)/OCCUPIER(S) DETAILS

Current lessee(s):

Current occupier(s):

Previous lessee(s):

Previous occupier(s):

AUDIT DETAILS

The name of the person who requested the audit:

The date when the auditor received the request:

The date of commencement of the audit:

The date or expected date of completion of the audit:

The use or uses of the site that have caused the contamination for which assessment or remediation was undertaken:

The current and proposed uses for the site:

The auditor’s opinion as to the suitability of the site for the current, proposed and permitted uses:

The name of the person(s) who carried out the assessment or remediation works that were reviewed or is being reviewed by the auditor and the titles of the reports that were or are being reviewed:

Details of any impacts on land adjacent to the site (including groundwater):

I certify that the information supplied in this form and any attached pages is correct.
Auditor Name or Signature: ___________________________ Date: ___________________________

ENVIRONMENT PROTECTION AUTHORITY, GPO BOX 158, CANBERRA ACT 2601
APPENDIX D – CONTAMINATED LAND NOTIFICATION

ENVIRONMENT PROTECTION AUTHORITY

CONTAMINATED LAND NOTIFICATION - Environment Protection Act 1997 section 23A
A lessee or occupier of land shall notify the Environment Protection Authority in writing as soon as practicable after becoming aware that land which he or she is the lessee or occupier is contaminated in such a way as to present, or be likely to present:
(a) a significant risk of harm to human health or
(b) a risk of material environmental harm or serious environmental harm.

LESSEE OR OCCUPIER DETAILS:

Name:

Address:

Phone:  
Fax:  

☐ I am the lessee of the site.  ☐ I am the occupier of the site.

SITE DETAILS:

Site or establishment name (if appropriate):

Block:  
Section:  
Suburb:

Address:

Owner(s) / Lessee(s):

Occupier(s):

CAUSE OF CONTAMINATION:


CONTAMINATION:

Contaminants of concern:

Source of information on contamination:


ENVIRONMENT PROTECTION AUTHORITY, GPO BOX 158, CANBERRA ACT 2601
WHAT ASPECTS OF THE ENVIRONMENT ARE/MAY BE AFFECTED (Tick all that apply):

- Air
- Surface Water
- Sediments
- Drinking Water
- Groundwater
- Soil
- Stormwater
- Wetlands
- Other (please specify)

WHO/WHAT IS POTENTIALLY AT RISK?

- Residents
- Plants
- Aquatic Life
- School/Kindergarten Children
- Threatened Species
- Workers
- Animals
- Other (please specify)

ARE ANY OTHER SITES EFFECTED OR AT RISK? (i.e. outside the lease/sub lease boundary)

- No
- Yes

If "Yes" is ticked, indicate which of the matters listed above apply to these other sites. Details of other sites affected:

ADDITIONAL PAGES ATTACHED (eg. Results of sampling, photographs, environmental reports, etc.)

If you have attached additional pages to this notification, indicate the number of pages. When the notification is certified, the person(s) who certify the notification must initial each page attached. Number of pages attached:

CERTIFICATION (In the case of a notice lodged on behalf of a body corporate):

I certify that:

(a) I have personally examined and am familiar with the information contained in this notification
(b) to the extent they are within my knowledge, the matters contained in this notification are true, accurate and complete.

Name: ___________________________ Position: ___________________________ Date: ___________________________

Signature: ________________________ Date: ___________________________

Name: ___________________________ Position: ___________________________ Date: ___________________________

Signature: ________________________ Date: ___________________________

SIGNATURE (In the case of a notice lodged by one or more individuals):

The matters contained in this notification are, to the best of my knowledge, true, accurate and complete.

Name or Signature: ___________________________ Date: ___________________________

Name or Signature: ___________________________ Date: ___________________________

If the notification is made by a corporation, the form must be signed by a person authorised to do so by the corporation. If the notification is made by one or more individuals, the form must be signed by each individual concerned.

ENVIRONMENT PROTECTION AUTHORITY, GPO BOX 158, CANBERRA ACT 2601
APPENDIX E - SITE AUDIT STATEMENT

ENVIRONMENT PROTECTION AUTHORITY

SITE AUDIT STATEMENT - Environment Protection Act 1997 section 76A
A site audit statement summarises the findings of a site audit. For full details of the site auditor's findings, evaluations and conclusions, refer to the associated site audit report.

PART I: SITE AUDIT IDENTIFICATION:

Site audit statement no.: ________________________________

This site audit is a statutory audit/non-statutory audit* within the meaning of the Environment Protection Act 1997.

Site auditor details (approved under the Environment Protection Act 1997)
Name: ________________________________
Address: ________________________________
Phone: ________________________________ Fax: ________________________________

SITE DETAILS:
Address: ________________________________

Property description (attach a list if several properties are included in the site audit)
Block: __________ Section: __________ Division: __________ District: __________
Area of site (e.g. hectares): __________ Current zoning: __________

To the best of my knowledge, the site is/is not* the subject of an order or agreement under the Environment Protection Act 1997.
Order/Agreement* no(s): ________________________________

SITE AUDIT COMMISSIONED BY:
Name: ________________________________
Company: ________________________________
Address: ________________________________
Ph: ________________________________ Fax: ________________________________

(*Strike out as appropriate) ENVIRONMENT PROTECTION AUTHORITY, GPO BOX 158, CANBERRA ACT 2601
Name and phone number of contact person (if different from above):

Name: 

Phone: 

A. To determine land use suitability (please specify intended use[s]): File Reference No.: 

OR

B(i) To determine the nature and extent of contamination, and/or

B(ii) To determine the appropriateness of an investigation/remedial action/management plan*, and/or

B(iii) To determine if the land can be made suitable for a particular use or uses by implementation of a specified remedial action plan/management plan* (please specify intended use[s])

INFORMATION SOURCES FOR SITE AUDIT

Consultancy(ies) which conducted the site investigation(s) and/or remediation

Title(s) of report(s) reviewed

Other information reviewed (including previous site audit reports and statements relating to the site)

SITE AUDIT REPORT

Title:

Report no.: Date:

("Strike out as appropriate) ENVIRONMENT PROTECTION AUTHORITY, GPO BOX 158, CANBERRA ACT 2601
PART II: AUDITOR’S FINDINGS

Please complete either Section A or Section B, not both. (Strike out the irrelevant section.)

Use Section A where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land use(s).

Use Section B where the audit is to determine the nature and extent of contamination and/or the appropriateness of an investigation or remedial action or management plan and/or whether the site can be made suitable for a specified land use or uses subject to the successful implementation of a remedial action or management plan.

SECTION A

☐ I certify that, in my opinion, the site is SUITABLE for the following use(s) permitted by its zoning "XXXXXX" as detailed in the ACT Territory Plan 2008 updated on DATE:

List Uses:

Subject to compliance with the following environmental management plan (insert title, date and author of plan) in light of contamination remaining on the site:

☐ OR

☒ I certify that, in my opinion, the site is NOT SUITABLE for any use due to the risk of harm from contamination.

Overall comments:

SECTION B

Purpose of the plan which is the subject of the audit:

I certify that, in my opinion:

☒ the nature and extent of the contamination HAS/HAS NOT* been appropriately determined

AND/OR

☒ the investigation/remedial action plan/management plan* IS/IS NOT* appropriate for the purpose stated above

AND/OR

☒ the site CAN BE MADE SUITABLE for the following use(s) permitted by its zoning "XXXXXX" as detailed in the ACT Territory Plan 2008 updated on DATE:

(*Strike out as appropriate)
If the site is remediated/managed* in accordance with the following remedial action plan/management plan* (insert title, date and author of plan)

Subject to compliance with the following condition(s):

Overall comments:

PART III: AUDITOR’S DECLARATION

I am accredited as a site auditor by the (applicable State Authority, e.g. NSW Environment Protection Authority)

under the (the applicable Act under which accreditation provided e.g. Contaminated Land Management Act 1997)

Accreditation No. 

and therefore approved as an Environmental Auditor under the Environment Protection Act 1997.

I certify that:
- I have completed the site audit free of any conflicts of interest and have not carried out an assessment or remediation of the land to which the audit relates, and
- with due regard to relevant laws and guidelines, I have examined and am familiar with the reports and information referred to in Part I of this site audit, and
- on the basis of inquiries I have made of those individuals immediately responsible for making those reports and obtaining the information referred to in this statement, those reports and that information are, to the best of my knowledge, true, accurate and complete, and
- this statement is, to the best of my knowledge, true, accurate and complete.

I am aware that there are penalties under the Environment Protection Act 1997 for willfully making false or misleading statements.

Signature: ___________________________ Date: ___________________________

(*Strike out as appropriate)
APPENDIX F – CONTAMINATED LAND SEARCH

ENVIRONMENT PROTECTION AUTHORITY

CONTAMINATED LAND SEARCH - Environment Protection Act 1997 section 76A

IMPORTANT: Please supply all information requested below to ensure your search is completed without undue delay. Search forms sent without the correct payment will be returned unprocessed unless prior arrangements have been made.

CONTAMINATED LAND SEARCH FEE $45.00 PER BLOCK
(Fee effective from 1 July 2017. Payment and collection options outlined)

The Contaminated Land Search has also been incorporated into the Lease Conveyancing Enquiry through ACT Planning and Land Authority (ACTPLA).

For those customers undertaking a Lease Conveyancing Enquiry for conveyancing purposes through ACTPLA there will be no need to separately undertake a Contaminated Land Search through the Environment Protection Authority unless the Lease Conveyancing Enquiry indicates further information is available from the Environment Protection Authority in relation to the land.

If you require further information on the Lease Conveyancing Enquiry, provided by ACTPLA, please contact Access Canberra on 13 22 81 or visit the ACTPLA home page at www.actpla.act.gov.au where you will find a full listing of fees and charges.

DETAILS OF COMPANY/INDIVIDUAL:

Name:
Address:
Phone: Fax:
Email:
Contact Name: Phone:

DETAILS OF SEARCH REQUEST:

Block: Section: Division: District:
Address:

ENVIRONMENT PROTECTION AUTHORITY, GPO BOX 158, CANBERRA ACT 2601
SEARCH AND RETURN DETAILS (PLEASE INDICATE PREFERENCE):

☐ E-mail
A search lodged with the Environment Protection Authority will be e-mailed in 10 working days from receipt of the application and required payment.

☐ Postage
Searches posted to the Environment Protection Authority will be forwarded within 15 working days from receipt of the application and required payment.

PAYMENT OPTIONS:

☐ Credit Card — online at http://www.accesscanberra.act.gov.au

☐ Cheques — make payable to
  Environment Protection Authority
  GPO Box 158 Canberra ACT 2601

OFFICE USE ONLY:

Date: ____________________________

Amount paid: ____________________  Receipt no.: ____________________