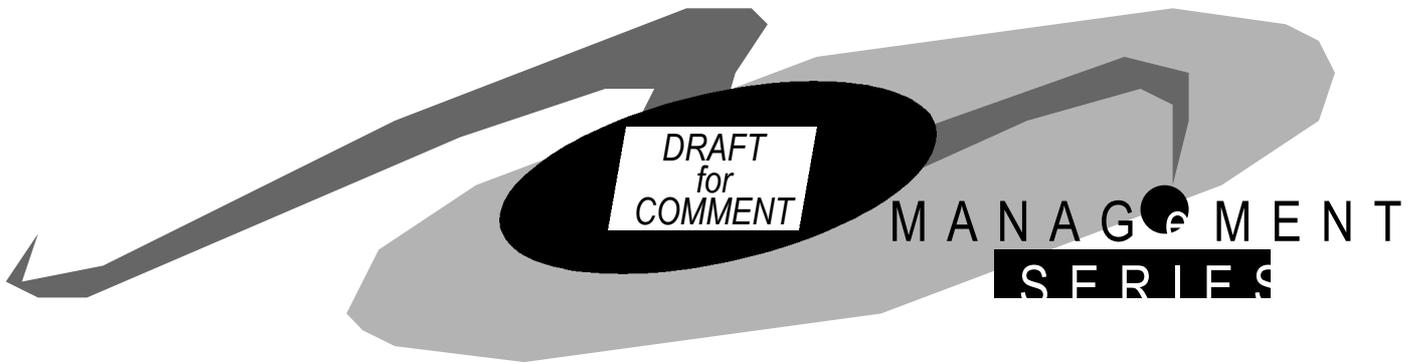




Department of  
Environmental Protection

Contaminated Sites  
Management Series

# Reporting of Known or Suspected Contaminated Sites



APRIL 2001

WESTERN AUSTRALIA

## PREFACE

This draft version of *Reporting of Known or Suspected Contaminated Sites*, has been prepared by the Department of Environmental Protection (DEP) to provide site owners and occupiers, government authorities, industry and other affected parties with the requirements of the DEP for the reporting of known or suspected contaminated sites.

The draft version has been released for public comment. Any comments on this draft should be forwarded to the Contaminated Sites Branch of the DEP by **31 July 2001**. All comments will be reviewed and considered, and where appropriate, incorporated into the final version.

Written comments on this guideline should be forwarded to:

Manager – Contaminated Sites Branch  
Pollution Prevention Division  
Department of Environmental Protection  
PO Box K822  
Perth WA 6842  
Fax: 08 9322 1598

Comments by E-mail should be sent to:  
[info@environ.wa.gov.au](mailto:info@environ.wa.gov.au)

## **LIMITATIONS**

This guideline applies to persons who are owners or occupiers, polluters and auditors who are required to report known or suspected contaminated sites to the DEP, and any person who wishes to report known or suspected contaminated sites to the DEP. The contents herein provide guidance only on the requirements for reporting of known or suspected sites. This guideline does not purport to provide a methodology for the assessment of sites. Competent persons should be engaged to provide specific advice in relation to the assessment of contaminated sites.

This guideline should be used in conjunction with the texts referenced herein, and any other appropriate references.

## **DISCLAIMER**

This document has been prepared by the DEP in good faith exercising all due care and attention. No representation or warranty, expressed or implied, is made as to the relevance, accuracy, completeness or fitness for purposes of this document in respect of any particular user's circumstances. Users of this document should satisfy themselves concerning its application to their situation, and where necessary seek expert advice.

## **CONTAMINATED SITES MANAGEMENT SERIES**

This guideline forms part of a management series being developed by the Contaminated Sites Branch of the DEP to assist in the assessment and management of contaminated sites in Western Australia (WA). This document presents the information required by the DEP when known or suspected contaminated sites are reported. This guideline encourages consistent and accurate reporting by informing consultants, industry and landowners of the information required by the DEP to enable efficient assessment of contaminated land and groundwater in WA.

The Contaminated Sites Management Series comprises the following guidelines:

- Certificate of Contamination Audit Scheme;
- Guidelines for Reporting on Site Assessments;
- Site Assessment Criteria;
- Guideline for Site Assessments;
- Guidance for Planners;
- Disclosure Statements;
- Contaminated Site Auditor Accreditation Scheme;
- Potentially Contaminating Activities, Industries, and Landuses;
- Reporting of Known or Suspected Contaminated Sites; and
- Site Classification Scheme.

Reference to these guidelines should ensure that the general requirements of the DEP are satisfied.

# TABLE OF CONTENTS

|  | <b>Page</b> |
|--|-------------|
| <b>PREFACE</b>   | <b>i</b>    |
| <b>LIMITATIONS</b>   | <b>ii</b>   |
| <b>DISCLAIMER</b>  | <b>ii</b>   |
| <b>CONTAMINATED SITES MANAGEMENT SERIES</b>                | <b>iii</b>  |
| <b>1. INTRODUCTION</b>                                     | <b>1</b>    |
| <b>2. DEFINITION OF CONTAMINATED</b>                       | <b>2</b>    |
| 2.1 What does risk of harm mean?                           | 2           |
| 2.2 What does environmental value mean?                    | 3           |
| <b>3. REPORTING OF CONTAMINATED SITES</b>                  | <b>4</b>    |
| 3.1 Who must report known or suspected contaminated sites? | 4           |
| 3.2 When must a report be made?                            | 4           |
| 3.3 Which sites should be reported?                        | 4           |
| 3.3.1 Known Contaminated Sites                             | 5           |
| 3.3.2 Suspected Contaminated Sites                         | 5           |
| 3.4 How should a site be reported?                         | 6           |
| 3.5 What information is required to be reported?           | 6           |
| 3.6 Failure to report                                      | 6           |
| 3.7 Classification of reported sites                       | 6           |
| <b>4. DETERMINING WHETHER A SITE IS CONTAMINATED</b>       | <b>8</b>    |
| 4.1 Site investigation                                     | 8           |
| 4.2 Assessing risk of harm                                 | 8           |
| <b>5. GLOSSARY</b>   | <b>10</b>   |
| <b>6. REFERENCES</b>                                       | <b>12</b>   |
| 6.1 Cited References                                       | 12          |
| 6.2 Useful References                                      | 12          |

## **APPENDIX**

### **Appendix A Proforma for Reporting Known or Suspected Contaminated Sites**

# 1. INTRODUCTION

## Introduction - Summary

- *The objective of this guideline is to provide an understanding of when and how known or suspected contaminated sites should be reported to the DEP.*
- *Reporting of sites to the DEP will facilitate the transfer of information on contaminated sites to regulatory agencies, potential purchasers of sites, and the community.*

Over the past decade there has been an increasing awareness of the issues associated with contaminated sites. In Western Australia (WA), these issues are compounded somewhat by our reliance on groundwater and the threat posed by land contamination to groundwater quality. It is currently difficult to estimate the exact number of contaminated sites in WA, predominantly due to deficiencies in the identification and documentation of contaminated sites and limitations associated with the exchange of information on contaminated sites.

One of the principles of the Government Position Paper on the *Assessment and Management of Contaminated Land and Groundwater in WA* (DEP, 1997) highlighted the importance of the identification, reporting and classification of contaminated sites. The draft *Contaminated Sites Bill 2000 (CS Bill)*, which has been prepared based on the principles of the Position Paper, provides for the reporting of known or suspected contaminated sites to the DEP. Reporting of sites to the DEP will facilitate the transfer of information on contaminated sites to regulatory agencies, potential purchasers of sites and the community. Reported sites will be classified in accordance with the site classification scheme presented in the *CS Bill*, and entered onto the DEP Contaminated Sites Database. Accessibility to the database is outlined in the *CS Bill* and the *Contaminated Sites Regulations 2001 (Regulations)*. Where information is required for site classification and the use of the Contaminated Sites Database, reference should be made to the *Site Classification Scheme* (DEP, 2001).

This guideline provides a definition of ‘contaminated’, and for the meaning of ‘risk of harm’, ‘environmental value’, ‘beneficial use’ and ‘ecosystem health condition’.

In addition, this guideline provides information on the reporting of contaminated sites to the DEP. This includes who must report known or suspected contaminated sites, when a report should be made, which sites should be reported and what information is required to be reported.

## 2. DEFINITION OF CONTAMINATED

### Definition of Contaminated - Summary

- Sites that present a risk to the environment or human health should be reported to the DEP and will be classified by the DEP as Contaminated – remediation required.
- Sites where no environmental risk is posed, but where a risk to human health may be posed should a change in land use occur, e.g. from industrial to residential use, have a potential to present a risk and should be reported to the DEP. These sites would be classified by the DEP as Contaminated – restricted use.
- Sites may pose both an environmental and health risk.

“**Contaminated**” in relation to land or underground water, is defined under Clause 4(1) of the *CS Bill* as a substance present in, on or under that land, or in the underground water, at a concentration that presents, or has the potential to present, a risk of harm to human health or any environmental value.

Clause 4(2) of the *CS Bill* recognises that surface water bodies are more appropriately managed through existing environmental statutes and national protocols, and states—

“However a site is not contaminated—

- (a) merely because in any surface water standing or running on the land a substance is present at a concentration that presents, or has the potential to present, a risk of harm to human health or any environmental value; or
- (b) where the regulations so provide.”

Therefore, surface water bodies such as evaporation basins and tailing ponds are not identified as contaminated areas merely because of their presence on a site. However, they may result in contamination of surrounding soil and groundwater due to inappropriate use or construction.

In addition, the *Contaminated Sites Regulations* specifically exclude radioactive material, biologically pathogenic material, unexploded ordnance or sodium chloride (for the purposes of land salinity) from being substances that may constitute a site as being contaminated for the purposes of the *CS Bill*. It is appropriate that these forms of contamination are to be dealt with by more specific management approaches or statutory mechanisms.

Radioactive materials are dealt with through the *Radiation Safety Act 1975*, biologically pathogenic material is dealt through the *Environmental Protection Act 1986* and *Health Act 1911*, unexploded ordnance is dealt with through the *Explosives and Dangerous Goods Act 1961* and sodium chloride under the Government’s *Salinity Action Plan*.

### 2.1 What does risk of harm mean?

For the purposes of the definition of contaminated under the *CS Bill*, “**risk of harm**” means—

“it is probable in a certain time-frame that an adverse outcome will occur in a person, a group of people, plants, animals and/or the ecology of a specified area that is exposed to a particular dose or concentration of a substance.”

This definition is based on the definition of risk in the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPM).

In a practical sense it refers to the probability of known contamination causing harm to human health or any environmental value because of a combination of the following factors:

- (a) the toxicity of the contaminants;
- (b) the concentration and location of the contaminants;
- (c) the bio-availability of the contaminants; and/or
- (d) the exposure pathways of the contaminants for identified receptors.

A site that demonstrates or presents a risk of harm, according to this definition, at its current land use setting are required to be reported to the DEP and will be classified as a *contaminated – remediation required* site.

A site that would demonstrate or present a risk of harm, according to this definition, in different circumstances of occupation or land use setting, but not the current land use setting, would be considered as having a potential to present a risk of harm. These sites are required to be reported to the DEP and would be classified as *contaminated – restricted use*.

Further information on the classification of sites is provided in the *Site Classification Scheme* (DEP, 2001) guideline.

## **2.2 What does environmental value mean?**

**“Environmental value”** under the *CS Bill* means —

- “(a) a beneficial use; or
- (b) an ecosystem health condition.”

Where beneficial use and ecosystem health condition have the following meanings:

**“Beneficial use”** means use of the environment, or of any portion thereof, which is —

- “(a) conducive to public benefit, public amenity, public safety, public health or aesthetic enjoyment; or
- (b) identified and declared under Section 35(2) of the *Environmental Protection Act 1986* (as amended) to be a beneficial use to be protected under an approved policy.”

**“Ecosystem health condition”** means a condition of the ecosystem, which is —

- “(a) relevant to the maintenance of ecological structure, ecological function or ecological process; or
- (b) identified and declared under Section 35(2) of the *Environmental Protection Act 1986* (as amended) to be an ecosystem health condition to be protected under an approved policy.”

These definitions are taken from the draft *Environmental Protection Amendment Bill 2000* and are cross-referenced to the *Environmental Protection Act 1986* in the *CS Bill*.

### 3. REPORTING OF CONTAMINATED SITES

#### Reporting of Contaminated Sites - Summary

- *Clause 9 of the CS Bill allows for ANY PERSON who KNOWS or SUSPECTS a site is contaminated to report it to the DEP.*
- *Known contaminated sites must be reported to the DEP within 21 days from the day the site was identified as being contaminated.*
- *Suspected contaminated sites should be reported as soon as reasonably practicable.*
- *Reports are required to be in writing, and as a minimum contain the information requested in the pro-forma at the back of this document.*

#### 3.1 Who must report known or suspected contaminated sites?

Clause 9 of the *CS Bill* allows for any person who knows or suspects a site to be contaminated to report that site to the DEP. It places a mandatory requirement upon certain people who know or suspect on reasonable grounds that a site is contaminated. This requirement to report extends to the following people:

- An owner or occupier of the land that is part of a site;
- A person who has caused or contributed to, or suspects on reasonable grounds that they have caused or contributed to the contamination; and
- A DEP Accredited Auditor engaged to report in respect of the site (refer to the *Certificate of Contamination Audit Scheme*, DEP, 2000).

Further information regarding what constitutes reasonable grounds to knowing or suspecting that a site is contaminated is discussed in Section 4 of this document.

To discourage the lodging of frivolous or vexatious reports, Clause 9 makes it an offence for a person to lodge a report where they do not have reasonable grounds to believe or suspect that the site is contaminated.

#### 3.2 When must a report be made?

A person referred to in Section 3.1 who knows that a site is contaminated, must report the site to the DEP within 21 days from the day on which that person first became aware that the site was contaminated. The only exceptions to this are where that person has been granted an extension to the 21-day time period by the DEP, in writing, before the expiry of the 21-day period. Application for extensions should be made in writing to the Chief Executive Officer (CEO).

A person referred to in Section 3.1 who suspects that a site is contaminated must report that site as soon as reasonably practicable.

If a person referred to in Section 3.1 has reasonable grounds to believe that the site has already been reported, then there is no obligation to report.

#### 3.3 Which sites should be reported?

The activities undertaken at a site, currently and historically, may indicate the possibility of contamination. Where activities involve the storage and handling of chemicals there is an increased risk of contamination.

Contamination may be caused by point sources such as accidental spillage of chemicals, leakage of chemicals from drums, tanks, pipe-work and drains, or from diffuse sources such as leaching of contaminants from inappropriate landfills, regional contamination of groundwater by pesticide and fertiliser application etc.

Guidance on potentially contaminating activities is provided in the DEP Guideline *Potentially Contaminating Activities, Industries and Landuses* (DEP, 2000). The list of activities, industries and landuses presented in this guideline is not exhaustive.

Where an activity on the list has been undertaken at a site, the site is not necessarily contaminated. In the majority of cases, contamination occurs through a lack of appropriate management of activities undertaken at a site, not just because the activity exists. A site should not be reported as contaminated simply because the nature of the activities on the site have a potential to cause contamination. Sites should only be reported where there is knowledge of contamination or reasonable grounds to suspect contamination.

### 3.3.1 Known Contaminated Sites

Sites at which it is known that contamination poses, or has the potential to pose, a risk of harm to human health or any environmental value should be reported. Examples of situations where a person would know or have evidence that a site is contaminated are:

- Where sampling at a site indicates the presence of contamination at concentrations in excess of the relevant guideline values (refer to *Site Assessment Criteria*, DEP, 2000);
- When a report is received from an auditor or consultant, or laboratory results indicate that the site is contaminated;
- Where contamination is located in a place where it poses or has the potential to pose an impact on human health or the environment;
- Where there are visible signs of potential harm from contaminants to plants or animals (for example, dead vegetation adjacent to areas of otherwise normal growth, unusual numbers of bird or fish deaths on or near the site); or
- Where a case of illness or health impairment to a person through having been exposed to a particular site has been demonstrated.

### 3.3.2 Suspected Contaminated Sites

A person could reasonably suspect that a site is contaminated where sound facts and justification lead to a conclusion that a site is contaminated. Situations where a person could suspect that a site is contaminated include:

- Chemicals or wastes found on the ground surface or in soil during site works (for example, abnormal colouring or staining of the soil);
- A particularly toxic contaminant present at the site that is likely to cause harm to anything with which it has contact, even in small quantities and even with limited exposure;
- Odours emanating from the soil;
- The presence of chemicals either in, or on, the groundwater or surface water at the site (for example, chemicals floating on the water, discolouration of the water, or odorous water);
- Evidence of off-site migration of contaminants into adjacent or nearby environments (for example, migration of chemicals/staining/odours to creeks, rivers or wetlands);

- On-site losses/leakage of dangerous goods (either catastrophic events or through inventory reconciliation);
- Historical, illegal and/or uncontrolled landfills on-site; or
- Inappropriate waste disposal, i.e. via soak well or on-site burial.

### 3.4 How should a site be reported?

To ensure that all reports of known or suspected contaminated sites are reported in an appropriate manner and to avoid vexatious reporting, all reports to the DEP must be presented in writing (to the Manager, Contaminated Sites Branch, DEP) and must contain the information upon which the person bases their knowledge or suspicion of the site being contaminated. A pro-forma for reporting is provided in Appendix A of this document.

### 3.5 What information is required to be reported?

All reports of known or suspected contaminated sites should be presented with a sufficient amount of information for the DEP to identify and classify the site. This means that the written report should contain a description of the location and extent of the site or property. A pro-forma for the reporting of sites to the DEP is provided in Appendix A.

Where a site is known to be contaminated, evidence of actual contamination must be presented, such as investigation reports or analytical data. The DEP *Guidelines for Reporting on Site Assessments* (DEP, 2000) is a useful guide for providing sufficient information.

Where a site is suspected of being contaminated, sound facts and justification for suspicion must be provided.

Reports vague in either description of site location, or those that are anecdotal in nature will not be treated as reports in accordance with the *CS Bill*. Where reports do not provide sufficient information on the nature of contamination to classify a site, the site will be listed on the DEP's Contaminated Sites Database as *report not substantiated*. For further information about Site Classification and the Contaminated Sites Database, reference can be made to the *Site Classification Scheme* (DEP, 2001).

It is an offence to report sites without reasonable grounds to believe or suspect that the site is contaminated. If convicted, the *CS Bill* provides for a maximum penalty of \$250,000 or a daily penalty of \$50,000.

### 3.6 Failure to report

Clause 9(3) of the *CS Bill* states that where it is mandatory to report, failure to do so constitutes an offence. If convicted, the *CS Bill* provides for a maximum penalty of \$250,000 or a daily penalty of \$50,000.

### 3.7 Classification of reported sites

The CEO may classify a site at any time. In some instances the CEO must classify a site. The CEO may classify a site more than once and the most recent classification prevails.

There are six different classifications for sites:

- *Report not substantiated* – The report provides no ground to indicate possible contamination of the land;

- *Possibly contaminated - investigation required* – There are grounds to indicate possible contamination of the land;
- *Not contaminated – unrestricted use* – After the investigation, the land is found not to be contaminated;
- *Contaminated – restricted use* – The land is contaminated but suitable for restricted use;
- *Contaminated – remediation required* – The land is contaminated and remediation is required and
- *Decontaminated* – The land has been remediated and is suitable for all uses.

When a report is received on a site from the owner or occupier or someone who knows or suspects that they caused or contributed to the contamination, the CEO is not obliged to classify the site. If the report is by an auditor or any other person, the site must be classified within 45 days of receiving the report.

The *Site Classification Scheme* (DEP, 2001) provides more information about the classification of sites.

## 4. DETERMINING WHETHER A SITE IS CONTAMINATED

### *Determining Whether a Site is Contaminated - Summary*

- *The initial approach to determining whether a site is contaminated would be via a Preliminary Investigation. Where signs of contamination are identified, then a Detailed Investigation may be required at the site to determine the nature and extent of contamination.*
- *Assessment of concentrations of contaminants should be made against the DEP Site Assessment Criteria (DEP, 2001).*
- *A site may not be contaminated simply because concentrations of contaminants are above the guideline assessment criteria. The contaminants at a site must present or have the potential to present a risk to either environmental or human health.*

Consistent with the definition of contaminated presented in Section 2, a site is contaminated if the contaminants at the site present, or have the potential to present a risk of harm at a site to human health or any environmental value.

The DEP has adopted the general principles for the assessment of site contamination established under the NEPM for determining whether a risk of harm is present at a site.

### 4.1 Site investigation

The initial approach to determining whether a site is contaminated would generally be via a Preliminary Investigation comprising a detailed site history and site inspection. Section 3.3 above, outlines possible indicators of site contamination. Where such signs of contamination are present, a Detailed Investigation should be undertaken, with suitably qualified personnel engaged to undertake the work. This document does not cover methodologies for the assessment of contaminated sites or investigation etc., however guidance on the investigation of contaminated sites is provided in other DEP guidelines and references listed in Section 6 of this document.

An important point to understand is that just because a site contains contaminants at concentrations above published assessment criteria, it does not mean that the site poses a risk of harm and is therefore contaminated. Assessment criteria utilised by the DEP in the *Site Assessment Criteria* (DEP, 2000) guideline are neither clean up nor response levels. They are to be used for the investigation and assessment of existing contamination, and are intended to prompt an appropriate site-specific assessment when they are exceeded, with the development of appropriate response levels where required. Where site-specific criteria are not developed, then the assessment criteria will be utilised by the DEP as default response criteria.

In addition, appropriate investigation and/or response levels may need to be developed where:

- Investigation values are not available for contaminants of concern and/or data is not available to enable the derivation of criteria;
- Site conditions, receptors and/or exposure pathways differ significantly from those assumed in the derivation of the guidance criteria; or
- There are significant ecological concerns (for example, critical or sensitive habitat is threatened or there are endangered species in parklands or nature reserves).

### 4.2 Assessing risk of harm

In considering whether a site is contaminated, the following factors should be considered:

- (a) The toxicity, persistence, bio-availability and bio-accumulative characteristics of the substances;
- (b) The concentration and overall mass of the substances;
- (c) The routes of exposure of the substances to the identified receptors (for example, inhalation, dermal contact, ingestion, contact through groundwater);
- (d) The exposure duration of receptors to the contaminants - in respect of human health this can mean the use to which that land is put. Are the current land uses appropriate in terms of risk of harm, and will future land uses increase the exposure?
- (e) The mobility of the substances – is it likely that the substances can move off-site to cause exposure elsewhere?
- (f) Whether the substances have already caused harm – animal, human or vegetation toxicity;
- (g) Whether the substances pose a risk of harm to human health or the environment; and
- (h) Any guidelines produced by the CEO in accordance with the *CS Bill*, relevant Australian Standards and the NEPM guidelines.

When assessing site investigation data where soil contaminant concentrations have been found to exceed Ecological Investigation Levels (EIL's) (referenced in the *Site Assessment Criteria*, DEP, 2001) and ecological receptor identification has not been undertaken, the DEP, as a general rule, will consider that the site presents, or has the potential to present a risk of harm to the environment. In WA, groundwater is viewed as a potential ecological receptor and this means that as a minimum, an indication of whether groundwater exists beneath a site is necessary and if so, the quality, depth and beneficial use of the water resource will assist in evaluating its status as a sensitive receptor. Site-specific groundwater information should be obtained. If shallow groundwater is encountered at a site and is considered to be a beneficial use, then an assessment of the potential for soil contamination to impact upon the groundwater will be necessary.

Where an investigation has determined that there are no ecological or environmental receptors at a site, then the site is no longer seen as a risk to the environment. Where the site is to be used for development/construction, then an assessment of the risk that the site poses to human health under current, proposed or potential land use will be made.

Sites may pose both an environmental and health risk.

Again it is important to recognise that the DEP will consider a site as contaminated only where contaminant concentrations are above relevant assessment criteria (determined via appropriate sampling), and no qualitative or quantitative exposure or risk assessment has been undertaken.

The assessment criteria adopted by the DEP are presented in the *Site Assessment Criteria* (DEP, 2000) guidelines.

## 5. GLOSSARY

|                                    |   |
|------------------------------------|---|
| <b>Accredited Auditor</b>          | Person accredited as a contaminated sites auditor under the provisions of Part 8 of the <i>CS Bill</i> . The role of auditors will be to provide an independent review of investigation and clean-up works completed at a site. Auditors will be accredited for a period of 2 years.  |
| <b>Assessment</b>                  | Study of a site to determine possible and actual contaminants. May involve a desktop review of the site and may also include the collection of soil, groundwater or sediment samples.   |
| <b>Assessment Criteria</b>         | Guideline concentrations of contaminants adopted by the DEP as being acceptable for a particular landuse.   |
| <b>Beneficial Use</b>              | The use of the environment or any element of the environment that is conducive to public benefit, welfare, safety, health or aesthetic enjoyment and which requires protection from the effects of waste discharges, emissions or deposits.   |
| <b>Clean-up Notice</b>             | A notice issued by the DEP where sites are classified as <i>contaminated - remediation required</i> . The notice will be provided to the site owner, occupier, or the polluter, whichever the DEP sees as most appropriate. The notice will outline the works required to be completed, which may include the preparation and submission of a management plan and compliance with the management plan and any appropriate standards. Failure to comply with a notice is an offence. |
| <b>Contaminant</b>                 | An undesirable impurity potentially harmful to human health or the environment.   |
| <b>Contaminated</b>                | a) in relation to a site, that a substance is present at that site, or<br><br>b) in relation to groundwater, that a substance is present in the groundwater<br><br>at a concentration that presents, or has the potential to present, a risk of harm to human health or any environmental value.  |
| <b>DEP</b>                         | Department of Environmental Protection.   |
| <b>Detailed Site Investigation</b> | An investigation which confirms and delineates potential or actual contamination through a comprehensive sampling program.  |
| <b>Environmental Value</b>         | (a) beneficial use; or<br><br>(b) an ecosystem health condition.  |

|                                       |  |
|---------------------------------------|--|
| <b>Hazard Abatement Notice</b>        | Notice, which may be issued by the DEP where contamination at a site poses an immediate and serious risk to the environment and/or human health.   |
| <b>Investigation Level</b>            | Concentration of a contaminant above which further appropriate investigation and evaluation is required.   |
| <b>Investigation Notice</b>           | An investigation notice will be issued by the DEP where there is a reasonable belief that a site is contaminated and that appropriate action to investigate, monitor or assess the site is not being taken. The notice will include the reasons for its issue, actions required to be completed to investigate a site, and the reporting requirements for the investigations. Failure to comply with the requirements of a notice is an offence. |
| <b>Preliminary Site Investigation</b> | An investigation consisting of a desktop study, a detailed site inspection and where appropriate, limited sampling. The preliminary site investigation should be of such scope as to be sufficient to indicate whether contamination is present or likely to be present and to determine whether a detailed site investigation should be conducted.  |
| <b>Remediation</b>                    | Action taken to eliminate, limit, correct, counteract, mitigate or remove any contaminant or the negative effects on the environment or human health of any contaminant.   |
| <b>Risk Assessment</b>                | Process for estimating the potential impact of a chemical, biological or physical agent on humans, plants, animals and the ecology.  |
| <b>Site</b>                           | An area of land or underground water.  |
| <b>Verifiable Interest</b>            | A verifiable interest includes ownership of an adjacent site, an intention to purchase a site, and a local or state government agency making a planning decision.  |

## **6. REFERENCES**

### **6.1 Cited references**

Department of Environmental Protection (1997) *Public Position Paper, Contaminated Sites - Assessment and Management of Contaminated Land and Groundwater in Western Australia.*

*Contaminated Sites Bill 2000, Draft for Public Comment, June 2000.*

Department of Environmental Protection (2000) *Guidelines for Reporting on Site Assessments.*

Department of Environmental Protection (2000) *Site Assessment Criteria.*

Department of Environmental Protection (2000) *Certificate of Contamination Audit Scheme.*

Department of Environmental Protection (2000) *Potentially Contaminated Activities, Industries and Landuses.*

Department of Environmental Protection (2001) *Site Classification Scheme.*

*Environmental Protection Amendment Bill 2000.*

National Environment Protection Council (NEPC) (1999) *National Environment Protection (Assessment of Site Contamination) Measure.*

### **6.2 Useful references**

Department of Environmental Protection (2000) *Guideline for Site Assessments.*

Water and Rivers Commission (1997) *Perth Groundwater Atlas.*



## APPENDIX A – PRO FORMA FOR REPORTING KNOWN OR SUSPECTED CONTAMINATED SITES

Please refer to the DEP *Reporting of Known or Suspected Contaminated Sites* (DEP, 2001). If further space is required, please attach to form.

### INFORMATION REQUIRED

#### **Reporter Details:**

|  |          |
|--|----------|
| Full name  |          |
| Address  | Postcode |
| Phone  | Fax      |
| (i) <input type="checkbox"/> Site owner/occupier      (ii) <input type="checkbox"/> Auditor      (iii) <input type="checkbox"/> Other (please specify) |          |

#### **Site Identification**

|   |           |                              |                             |
|---|-----------|------------------------------|-----------------------------|
| Lot No.   | House No. | Street                       |                             |
| Suburb  |           | State                        | Postcode                    |
| Certificate of Title Details (including volume/folio) |           | Local Government Authority   |                             |
| Longitude/Latitude OR Northing/Easting                |           | Current Zoning               |                             |
| Site Plan attached?                                   |           | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

#### **Occupier/Owner Details:**

|   |                                 |
|---|---------------------------------|
| Site Owner<br>ACN and/or ABN              | Site Occupier<br>ACN and/or ABN |
| Contact Name and relationship to the site |                                 |
| Address                                   |                                 |
| Phone                                     | Fax                             |

**Site Details:**

Previous activity(s)

Present activity(s)

Future activity(s)

Contaminants

Media (eg. Soil, groundwater)

**History of Investigations:**

Has there been previous investigations(s) undertaken?  Yes  No

Report title, date and author. Please attach copies along reports/results.

**Knowledge/Suspicion of Contamination:**

Any incidents of, or investigations addressing, site contamination

Results of any environmental audits or investigations completed at the site

**ADDITIONAL INFORMATION**

**Site Description/Layout:**

Location and Description of any Underground Storage Tanks (USTs), Above Ground Storage Tanks (ASTs), other Bulk Storage Areas and other contaminant sources

**Site Characteristics:**

Geology; soil types, fill materials, etc.

**Sensitive Receptors:**

Hydrological information; proximity to any surface water bodies, rivers, wetlands, drains, etc.

Hydrogeological information; depth to groundwater, groundwater quality, groundwater flow direction and discharge location

Proximity to any endangered species habitat

**Licensed Facilities:**

Any licensed activities undertaken at the site

Any notices or directions issued for the site

**Certification by Applicant:**

I certify that the information contained in this application  
(including attachments) is accurate and correct

Signature

Date

Full Name and Title

**Please submit the application together with attachments to The Manager, Contaminated Sites Branch, Department of Environmental Protection, PO Box K822, Perth 6842.**