



**MANAGEMENT OF  
CONTAMINATED  
LANDS POLICY  
P2.0054.3**

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## MANAGEMENT OF CONTAMINATED LANDS

**DIVISION:** Planning and Environment

**BRANCH:** Statutory Planning

**CATEGORY:** 2

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<b>PART 1 – INTRODUCTION</b> .....	<b>3</b>
<b>1. BACKGROUND</b> .....	<b>3</b>
<b>2. OBJECTIVE</b> .....	<b>3</b>
<b>3. SCOPE</b> .....	<b>5</b>
<b>4. DEFINITIONS</b> .....	<b>5</b>
<b>PART 2 - POLICY STATEMENT</b> .....	<b>8</b>
<b>5. RESTRICTIONS ON LAND USE</b> .....	<b>8</b>
<b>6. PLANNING PROCESS FOR DEVELOPMENT APPLICATIONS, REZONINGS (I.E. LOCAL ENVIRONMENTAL PLANS AND DEVELOPMENT CONTROL PLANS)</b> .....	<b>8</b>
6.1 INITIAL EVALUATION .....	9
6.2 THE SITE INVESTIGATION PROCESS.....	12
<b>7. SITE AUDITS</b> .....	<b>17</b>
7.1 CONDITIONAL SITE AUDIT STATEMENTS .....	18
<b>8. REMEDIATION WORK</b> .....	<b>18</b>
8.1 CATEGORY 1 REMEDIATION WORK .....	19
8.2 REMEDIATION SITES.....	22
8.3 WHEN IS A REMEDIAL ACTION PLAN REQUIRED? .....	22
8.4 WHAT ARE THE STANDARDS FOR REMEDIATION WORK?.....	22
8.5 UNEXPECTED FINDS.....	22
<b>9. INFORMATION RECORDING</b> .....	<b>23</b>
9.1 PROPERTY INFORMATION SYSTEM.....	23
9.2 SECTION 10.7 CERTIFICATES.....	23
<b>REFERENCES</b> .....	<b>24</b>
<b>APPENDIX 1</b> .....	<b>25</b>
<b>APPENDIX 2</b> .....	<b>30</b>

# PART 1 – INTRODUCTION

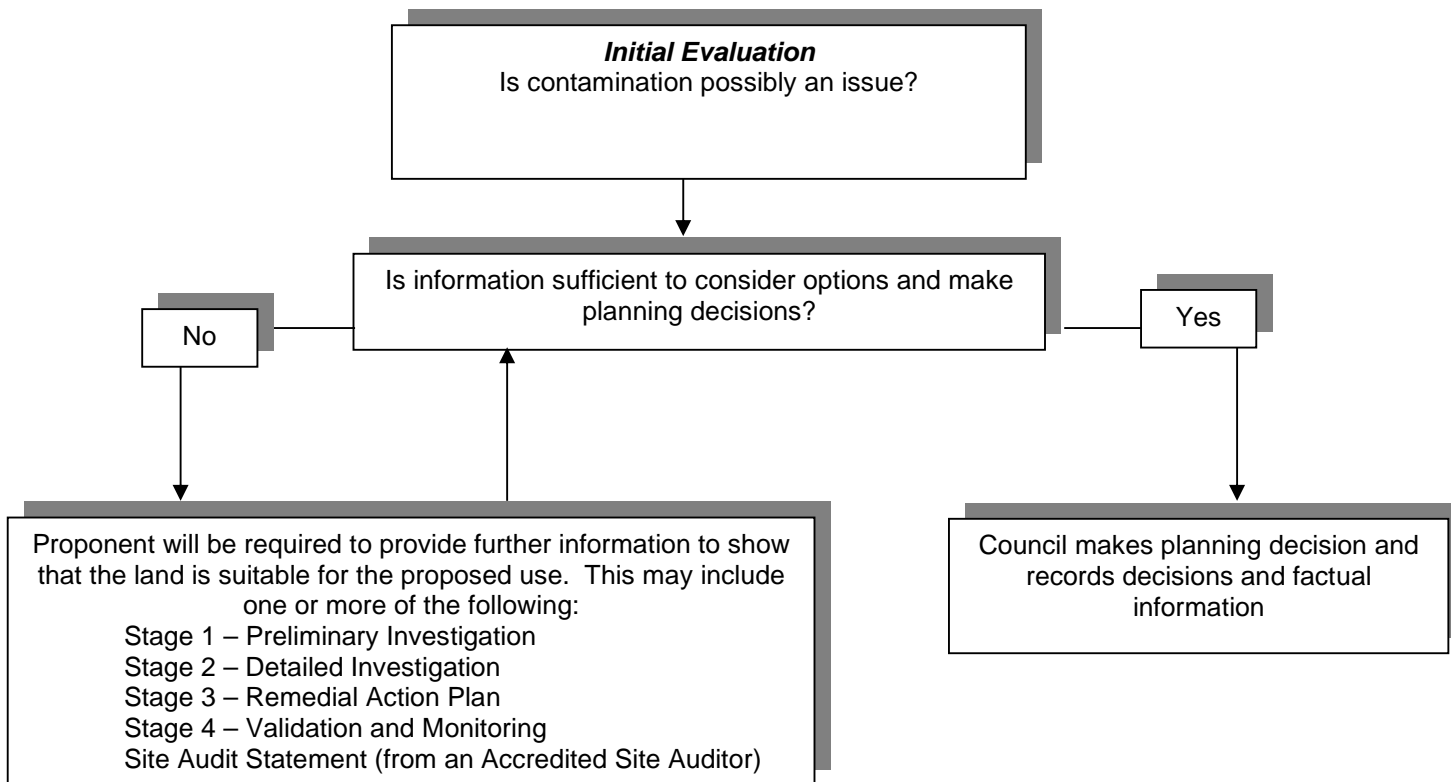
## 1. BACKGROUND

- 1.1 Land contamination is most often the result of past uses of that land. It can arise from activities that took place on or adjacent to a site and be the result of improper chemical handling or disposal practices, or accidental spillage or leakage of chemicals during manufacturing or storage. Activities not directly related to the site may also cause contamination; for example, from diffuse sources such as polluted groundwater migrating under a site or dust settling out from industrial emissions.
- 1.2 In some situations, the use of land can result in its contamination by chemicals, posing a risk to human health or the environment and precluding later development of a site for particular uses. Council recognises that the prevention and management of contamination is of paramount importance to ensure that changes to land use will not increase the risk to health or the environment. The purpose of this policy is to provide guidelines to assist in the early identification of potential contamination and to enable management of land contamination through the planning and development control process.
- 1.3 The New South Wales Government has recognised that the management of contaminated land is a major issue for public agencies, industry and the community and has released a package of reforms to provide a comprehensive, consistent and whole-of-government approach to contamination and remediation. This included:
  - *The Contaminated Land Management Act 1997.*
  - State Environmental Planning Policy No. 55 - Remediation of Land commenced 28 August 1998.
  - *Managing Land Contamination: Planning Guidelines, August 1998.*
  - *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (Amended 2013).*

## 2. OBJECTIVE

- 2.1 This policy sets out a framework for the management of contaminated land within the Camden Local Government Area and provides practical advice for members of the community as well as professionals involved in the planning and development process within the Camden Local Government Area.
- 2.2 The policy forms the basis for the best practice management of contaminated land within the Camden Local Government Area. The policy provides information with respect to the early identification of contaminated sites, the processing of rezoning and development applications, the recording and use of information and the provision of information to the community.
- 2.3 For the purpose of this policy, the process for making a decision on a change of land use is as shown in Figure 1.

**Figure 1: Decision Process for Land Use Changes**



(Source: DUAP, 1998)

2.4 The aim of this policy is to establish a local planning framework which ensures that Council's adopted approach to the management of contaminated land is a **precautionary based approach**. This policy adopts the Planning Guidelines for Managing Land Contamination 1998 and SEPP 55 - Remediation of Land prepared by the Department of Planning, Industry and Environment and the EPA. Further, the policy aims to integrate the issue of land contamination management into the planning and development control process to:

- Enable the identification, evaluation and management of potential contamination at an early stage in the planning and development control process.
- Ensure that changes of land use will not increase the risk to health or the environment nor impact on the safety of existing or new structures.
- Ensure remediation of contaminated sites prior to redevelopment, by the adoption of practical, socially acceptable and cost-effective management strategies which protect public health and the environment.
- Avoid inappropriate restrictions on land use.
- Provide a framework for the recording of information to support decision making and to inform the community.
- Guide staff to exercise statutory planning functions with a reasonable standard of care and to act in good faith.

### 3. SCOPE

3.1 This policy applies to:

- the preparation or making of an environmental planning instrument.
- the preparation or making of a development control plan.
- the processing and determination of a development application.
- the modification or review of a development application determination.
- the furnishing of advice in a planning certificate under section 10.7 of the *Environmental Planning and Assessment Act 1979*.
- anything incidental or ancillary to the carrying out of any function listed above.

3.2 The policy provides guidelines and recommends strategies for each of the planning functions listed above. Council requirements are adopted on the base line standards and they may only be varied where Council is satisfied that the objectives are not compromised and development of land has regard to its individual capability.

3.3 This policy applies to all land within the Camden Local Government Area.

### 4. DEFINITIONS

**4.1 Agriculture** means, cotton and rice cultivation, viticulture, turf farming, animal boarding or training establishments, aquaculture or farm forestry (but does not include extensive agriculture, horticulture and intensive livestock agriculture).

**4.2 Certified Contaminated Land Consultant (CCL Consultant)** means a consultant who has been certified and can provide a certification number or electronic seal in accordance with either:

- The Certified Environmental Practitioners Scheme – Site Contamination; or
- Certified Professional Soil Scientist Contaminated Site Assessment and Management.

**4.3 Contaminated Land** means land in, on or under which any substance is present at a concentration above the concentration at which the substance is normally present in, on or under land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.

**4.4 Contamination** means the presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.

**4.5 Council** means Camden Council.

**4.6 Detailed Investigation** means an investigation to define the extent and degree of contamination in order to assess potential risks posed by contaminants to health and the environment, as well as to obtain sufficient information for the development of a remedial action plan if required.

**4.7 EPA** means the NSW Environment Protection Authority.

**4.8 Extensive Agriculture** means:

- The production of crops or fodder (including irrigated pasture and fodder crops),
- The grazing of livestock, or
- Bee keeping,

for commercial purposes.

It does not include the following:

- Cotton and rice cultivation,
- Intensive livestock agriculture,
- Aquaculture,
- Turf farming,
- Animal boarding or training establishments,
- Farm forestry, or
- Horticulture or viticulture.

**4.9 Horticulture** means the cultivation of fruits, vegetables, mushrooms, nuts, cut flowers and foliage and nursery products for commercial purposes, but does not include retail sales or viticulture.

**4.10 Independent Review** means an evaluation by an independent expert that may be required by Council in relation to any information submitted by a proponent. Such reviews are to be conducted at the proponent's expense.

**4.11 Initial Evaluation** means an assessment of readily available factual information to determine whether contamination is an issue relevant to the decision being made.

**4.12 Intensive Livestock** means the keeping or breeding of large numbers of livestock including cattle, poultry, goats at relatively high stocking densities.

**4.13 Agriculture** means horses or other livestock, that are fed wholly or substantially on externally-sourced feed, and includes the operation of feed lots, piggeries, poultry farms or restricted dairies, but does not include the operation of facilities for drought or similar emergency relief or extensive agriculture or aquaculture.

- 4.14 Investigation Area** means land declared to be an investigation area by a declaration in force under Division 2 of Part 3 of the *Contaminated Land Management Act 1997*.
- 4.15 Investigation Order** means an order by the EPA under the Contaminated Land Management Act to investigate contamination at a site or within an area.
- 4.16 Landforming Operation** means the carrying out of any work or other activity that affects an area of land greater than 100m<sup>2</sup> and that:
- alters a drainage pattern or a flood level, or
  - raises or lowers the surface of the land at any point so as to alter the natural ground level by more than one metre, or
  - raises or lowers by more than one metre at any point any level of the land that has been created by previous excavation or filling.
- 4.17 Notice of Completion** means a notice in writing to the consent authority in accordance with SEPP 55 that remediation work has been completed.
- 4.18 Preliminary Investigation** means an investigation to identify any past or present potentially contaminating activities and to provide a preliminary assessment of any site contamination.
- 4.19 Qualified Consultant** means, for the purpose of this policy, is a person who, in the opinion of Council, has demonstrated experience, or access to experience in hydrology, environmental chemistry, soil science, eco toxicology, sampling and analytical procedures, risk evaluation and remediation technologies.
- 4.20 Remedial Action Plan / Remediation Action Plan** means a plan which sets remediation goals and documents the process to remediate a site.
- 4.21 Remediation Order** means a direction from the EPA under the *Contaminated Land Management Act 1997* to remediate the site.
- 4.22 Regulated Site** means a site declared by the EPA under the *Contaminated Land Management Act 1997* as warranting regulation by reason of contamination.
- 4.23 Remediation Site** means a site declared by the EPA under the *Contaminated Land Management Act 1997* as posing a significant risk of harm. However, site contamination can be remediated even if it has not been determined by the EPA to be of significant risk of harm.
- 4.24 Remediation Work** means a work in, on or under contaminated land, being a work that:
- removes the cause of the contamination of the land, or

- disperses, destroys, reduces, mitigates or contains the contamination of the land, or
  - eliminates or reduces any hazard arising from the contamination of the land (including by preventing the entry of persons or animals on that land).
- 4.25 Site Audit** means an independent review by a site auditor of any or all stages of the site investigation process conducted in accordance with the *Contaminated Land Management Act 1997*.
- 4.26 Site Audit Statement** means a certificate issued by a site auditor stating for what use the land is suitable.
- 4.27 Site Audit Summary Report** means a report containing the key information and the basis for consideration which leads to the issue of a site audit statement.
- 4.28 Site auditor** means a person accredited by the EPA under the *Contaminated Land Management Act 1997* to conduct site audits.
- 4.29 Validation** means the process of determining whether the objectives for remediation and any conditions of development consent have been achieved.

## **PART 2 - POLICY STATEMENT**

### **5. RESTRICTIONS ON LAND USE**

- 5.1 This policy imposes the following land use restrictions in respect of potentially contaminated land;
- if the contamination status of the land is unknown and Council has reason to believe the land may be contaminated, no change in use should occur which may increase the risk of harm until the land has been investigated, remediated and validated, if appropriate;
  - if contamination has caused an unacceptable risk of harm, the use of the land should be restricted to reduce the risk to acceptable levels or remediated to allow specific land use.
- 5.2 A list of activities and land uses that could potentially result in contamination is attached as Appendix 1.

### **6. PLANNING PROCESS FOR DEVELOPMENT APPLICATIONS, REZONINGS (I.E. LOCAL ENVIRONMENTAL PLANS AND DEVELOPMENT CONTROL PLANS)**

In assessing a development application (DA) or preparing a Local Environmental Plan (LEP) or Development Control Plan (DCP), Council must consider the issue of land contamination and any implications it may have for any proposed or permissible future uses of the land. Council will adopt a **precautionary approach** to ensure that any land contamination issues are identified and dealt with early in the planning process.



## 6.1 Initial Evaluation

An initial evaluation, to determine whether contamination is an issue, is required to be carried out in the determination of DAs and in the preparation of LEPs or DCPs. The initial evaluation is required regardless of the proposed or current use and will enable Council to identify whether land contamination is relevant to the decision being made and whether further information is required from the proponent.

The initial evaluation, which is undertaken by Council, will be based on readily available factual information, of which Council is aware, and will include;

- current zoning, permissible uses and records from previous rezonings;
- previous DAs relating to the site;
- site inspections including a visual inspection of adjoining sites;
- Council's property files to indicate previous and current land uses;
- previous investigations or reports about contamination on the land including any remediation of previously contaminated land;
- whether the land is, or was, regulated through licensing or other mechanisms in respect of any activity listed in Appendix 1;
- whether there are any land use restrictions on the land relating to contamination such as notices issued by the EPA or other regulatory authority;
- information provided by the proponent such as a DA, rezoning request or an investigation.

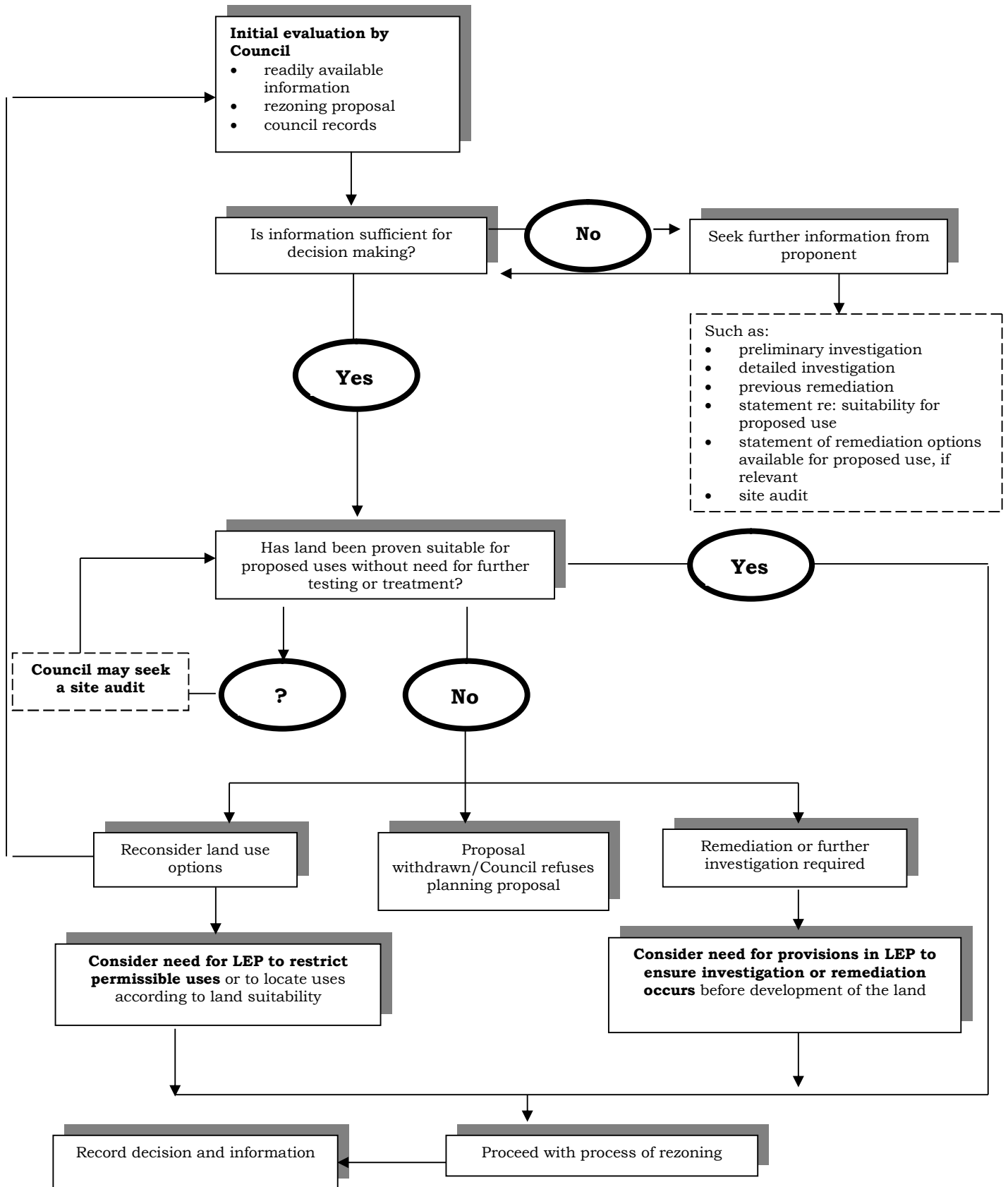
Where, after undertaking the initial evaluation, there is no reason to suspect contamination or need for further inquiry, the proposal may be assessed without any further investigation into contamination.

However, if after carrying out an initial evaluation there are indications that contamination is, or may be, present and Council has insufficient information on which to make a planning decision, the proponent must undertake further investigation of the site and provide Council with the information it needs to make its determination.

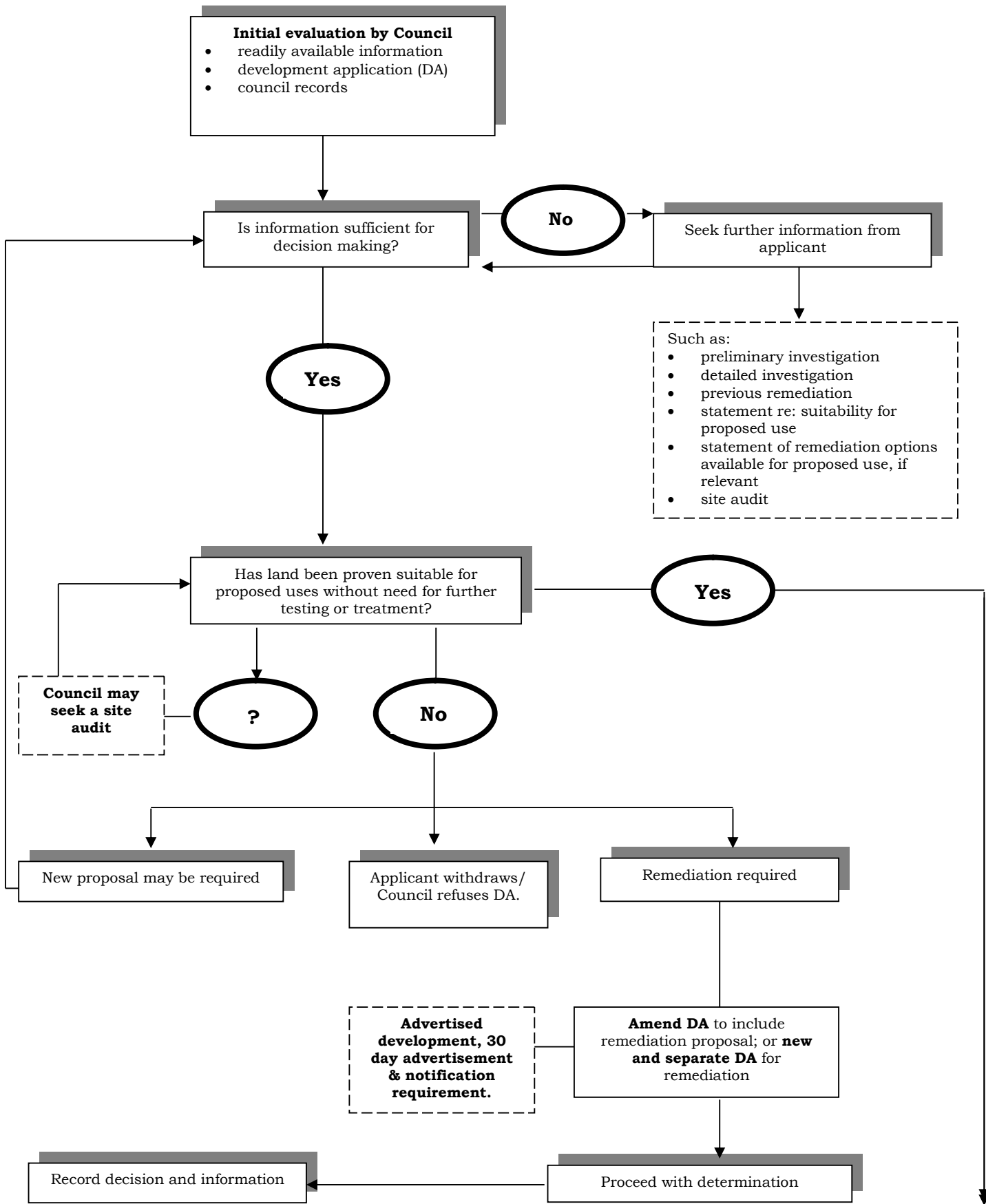
In order to provide the necessary information, the proponent must engage a certified contaminated land consultant who is experienced in contaminated site assessment and management, to investigate the subject land in accordance with the following requirements. These reports must be prepared in accordance with the current *Guidelines for Consultants Reporting on Contaminated Sites*, EPA NSW.

Council's procedures for considering land contamination issues for development and rezoning applications are detailed in Figures 2 and 3 on pages 10 and 11.

**Figure 2: Options Available in the Rezoning Process where the Specific End Use is known**



**Figure 3: Options Available in the Development Application Process**



## 6.2 The Site Investigation Process

It should be emphasised that not every site will require all four stages of investigation.

Where it is intended to deviate from the following “site investigation process” (for any stage of the investigation), Council will not consider such a deviation unless an EPA Accredited Site Auditor has undertaken a Site Audit of all investigation works and provided a Site Audit Statement that states for what use the land is suitable. (Refer “Section 7” of this Policy for information about Site Audits). Where conditions are proposed to be attached to a Site Audit Statement, the Auditor must consult with, and receive approval from Council as to whether the proposed conditions will be acceptable to Council.

If the initial evaluation shows that there is possible contamination of the site, the following process shall be adopted. The appropriate level of investigation will depend on the circumstances and may involve one or more of the stages described below in the *site investigation process*.

### 6.2.1 Stage 1 - Preliminary Investigation

#### **(a) Why is a preliminary investigation required?**

The main objectives of a preliminary investigation are to:

- identify any past or present potentially contaminating activities;
- report on the site condition;
- provide a preliminary assessment of any site contamination; and, if required,
- provide a basis for a more detailed investigation.

#### **(b) When is a preliminary investigation required?**

A preliminary investigation is required where a change of use is proposed and:

- the land is within an investigation area; or
- a land use listed in Appendix 1 is known to have been carried out, which Council has reason to believe has resulted in contamination; or
- the site is to be used for residential, educational, recreational or child care purposes or for a hospital and a land use listed in Appendix 1 could lawfully have been carried out at any time at which land use history is incomplete.

**(c) What level of assessment is required for a preliminary investigation?**

The preliminary investigation will involve a detailed appraisal of the site's history and a report based on a visual site inspection and assessment. It is important that all relevant information about the site is assessed to determine the potential for site contamination. The content of a preliminary investigation report shall comply with the EPA's Guidelines for Consultants Reporting on Contaminated Sites.

Where contaminating activities are suspected to have had an impact on the land, sampling and analysis will be required to confirm and support any conclusion reached from the site history appraisal. Through the assessment of sampling results, an assessment of contamination can be established.

Where the results of a preliminary investigation demonstrate the potential for or the existence of contamination, a detailed investigation should be undertaken. Where the preliminary investigation shows a history of non-contaminating activities at a site and in the absence of other contrary evidence there will be no need for further investigation. If there is sufficient information to satisfy the Council that the site is suitable for the proposed use the planning process may proceed.

6.2.2 Stage 2 - Detailed Investigation

**(a) When is a detailed investigation required?**

A detailed investigation is necessary when a preliminary investigation indicates that the land is:

- contaminated;
- potentially contaminated (in Council's opinion); or
- used for an activity listed in Appendix 1 (or has formerly been used for such an activity) and a land use change is proposed that has the potential to increase the risk of exposure to contamination or has been identified by the EPA.

A detailed investigation will also need to be conducted as part of a remediation proposal.

**(b) Why is a detailed investigation required?**

The objectives of a detailed investigation are to:

- define the nature, extent and degree of contamination, including the likelihood for off-site migration;

- assess the possible routes for movement of contaminants, including air, surface water and ground water;
- assess potential risk posed by contaminants to health and the environment; and
- obtain sufficient information to develop a remedial action plan (RAP), if required.

**(c) *What level of assessment is required for a detailed investigation?***

A detailed investigation should provide information about the extent and degree of contamination. It should also include an assessment of the risk posed by the contaminants to health and the environment. Generally, the risk can be assessed by comparing the levels of residue on-site with appropriate predetermined thresholds such as the soil investigation levels specified by the EPA. The risks can also be determined by a site-specific risk assessment undertaken by the proponent's consultant.

Sampling densities for detailed investigations are as follows:

**Site Area Less Than 5ha**

Minimum sampling density shall be in accordance with Table A of the EPA Sampling Design Guidelines.

1. Alternatively, the proponent may engage an EPA-accredited site auditor to review the preliminary investigation and approve a sampling plan which is of a lower density and provide a site audit statement on completion of the works.

**Site Area Greater Than 5ha**

1. Minimum equivalent sampling density of 11 points per hectare.
2. Alternatively, the proponent may engage an EPA-accredited site auditor to review the preliminary investigation and approve a sampling plan which is of lower density and provide a site audit statement on completion of the works

Detailed investigation reports shall comply with the current EPA Guidelines for Consultants Reporting on Contaminated Sites.

### 6.2.3 Stage 3 - Remedial Action Plan

**(a) *When is a Remedial Action Plan (RAP) required?***

A RAP is required whenever remediation works are proposed. **A RAP must be submitted to Council for all remediation works.**

**(b) *Why is a Remedial Action Plan required?***

The objective of a RAP is to

- set objectives and document the process to remediate the site;
- set remediation goals that will ensure that the remediated site will be suitable for the proposed use and will pose no unacceptable risk to human health or the environment; and
- determine the most appropriate remedial strategy\*;

\* Remedial Strategy: The preferred hierarchy of options for soil remediation and management is to be implemented in the following order:

1. on-site treatment of the soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level,
2. off-site treatment of excavated soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site,
3. removal of contaminated soil to an approved site or facility, followed where necessary by replacement with clean fill, and
4. consolidation and isolation of the soil on-site by containment within a properly designed barrier.

Note: Option 4 is generally not supported by Council and will only be considered where options 1-3 are not feasible and it is supported/justified as part of site audit for the site.

**(c) *What information is required for a RAP?***

The level of information and the structure and scope of the report prepared by the consultant shall be in accordance with the requirements of the EPA's "Guidelines for consultants reporting on contaminated sites".

Additionally the RAP should be based on information obtained from investigations and on the proposed land use.

The objectives of the remediation strategy and the recommended clean-up criteria should be clearly stated in the RAP. The RAP should demonstrate how the proponent or their consultant proposes to reduce risks to acceptable levels and achieve the clean-up objectives for the site.

#### 6.2.4 Stage 4 - Validation and Monitoring

**(a) *Why is validation and monitoring required?***

The objective of validation and monitoring is to:

- demonstrate whether the objectives stated in the RAP and if applicable, Council's conditions of development consent, have been achieved; and
- identify whether any further remediation work or restrictions on land use are required.

**(b) *What is required for validation and monitoring?***

Validation must confirm statistically that the remediated site complies with the clean-up criteria set for the site. Ideally, the same consultant that conducted the rest of the site investigation and remediation process should conduct the validation. The environmental consultant is required to follow the current EPA "Guidelines for consultants reporting on contaminated sites" and "sampling design guidelines" when validating the site.

**(c) *Certificate of Completion***

A certificate of completion must be submitted to Council within 30 days in accordance with clauses 17 and 18 of SEPP 55. The certificate of completion shall incorporate a validation report.

**(d) *Validation report***

The report shall follow structure and scope as set out in the current EPA "Guidelines for consultants reporting on contaminated sites".

The report must assess the results of the post-remediation testing against the clean-up criteria stated in the RAP. Where the targets have not been achieved, reasons for such failure must be stated and additional site work should be proposed that would achieve the original objectives.

The report must also include information confirming that all licenses, approvals and development consents have been complied with. In particular, documentary evidence must be provided to confirm that any contaminated soil that has been disposed of off-site or removed for re-use has been dealt with as specified by the relevant authority.



In situations where full clean-up is not feasible or on-site containment of contamination is proposed, the need for a continuing monitoring program must be assessed by both the proponent's consultant and the Council. If required, this monitoring program will include the proposed monitoring strategy, the parameters to be monitored, the monitoring locations, and the frequency of monitoring and reporting requirements.

Council may require the validation report be referred to an independent site auditor for comment and review. The auditor will provide Council with a site audit statement that provides a clear and unequivocal statement certifying the suitability of the subject site for the proposed use. The full cost of appointing the auditor shall be borne by the applicant.

## **7. Site Audits**

A site audit is an independent third party evaluation or review of the information submitted by the proponent, conducted in accordance with the *Contaminated Land Management Act 1997*. This process may review a preliminary investigation, a detailed investigation, a remedial action plan or a validation report.

A site audit may be necessary when the Council:

- believes on reasonable grounds that the information provided by the proponent is incorrect or incomplete;
- wishes to verify the information provided by the proponent adheres to appropriate standards, procedures and guidelines; or
- does not have the internal resources to conduct its own technical review.

If a site audit is required, Council will require the audit to be prepared by an appropriately qualified site auditor who is independent of all involved parties and is accredited by the EPA under the Contaminated Land Management Act, 1997. Appendix 2 provides information on how to access the list of accredited auditors. A site audit will lead to the provision of a certificate called a *site audit statement*, stating for what use the land is suitable. The structure and scope of the site audit statement shall follow the requirements as set out in the current EPA "Guidelines for consultants reporting on contaminated sites".

Another document prepared by site auditors who may be of use to Council is a *site audit summary report*. A site audit summary report is a requirement of the EPA. It contains the key information and the basis of consideration, which leads to the issue of the site audit statement.

Site auditors can assist Council by commenting on or verifying information provided by the proponent in relation to site assessment, remediation, validation or whether they have adhered to relevant standards, procedures and guidelines. Engaging a site auditor can also provide greater certainty about the information on which Council is basing its decision, particularly where sensitive uses are proposed on land that may be contaminated and a statement about the suitability of the site is required.

If Council considers that it needs a site audit in order to make its planning decision, the cost is to be borne by the proponent and not the Council. Similarly, where the proponent decides to engage the services of a site auditor for any purpose that includes to conduct a Site Audit, the cost is to be borne by the proponent.

### 7.1 Conditional site audit statements

Site audit statements should be issued with as few conditions as possible, since conditions are essentially qualifications to the auditor's conclusion and can therefore detract from the certainty and conclusiveness of the statement.

However, it is recognised that there will be occasions when it will be appropriate for a site audit statement to contain conditions, for example where ongoing monitoring of ground water is required. In these circumstances, auditors must ensure that the conditions placed on the site audit statement:

- Do not pre-empt the completion of remediation (that is, further work is not required to make the land suitable for its proposed use); and
- Can be complied with through legitimate means that are acceptable to Council.

Where conditions may affect Council's planning decision regarding development consent, auditors are required to seek written approval from Council before including them on a site audit statement.

In all cases where Council is required to be involved in order to ensure compliance with a condition, auditors are required to seek written approval from Council before issuing a site audit statement.

## 8. Remediation Work

**For the purposes of this policy the requirements of SEPP 55 in relation to category 2 remediation works are not applicable in Camden, as the requirements of Part 3, Clause 11, subclause (4) of Sydney Regional Environmental Plan No. 20 Hawkesbury-Nepean River (No. 2 - 1997) supersede these requirements. All proposed remediation works are category 1 and as such Council consent is required for the remediation of all sites within the Camden Local Government Area**

Remediation is generally considered beneficial as it improves the quality of the environment, reduces health risks and restores land to productive use. Conversely remediation work itself has the potential for environmental impact and the planning process must ensure that these impacts are adequately identified and mitigated.

Although proceeding with remediation as being an economic decision for the proponent, Council will make a preliminary assessment of whether remediation would be acceptable on planning grounds, that is, the potential environmental impact of the works.

The objective of remediation work is to ensure that land use changes do not occur until Council is satisfied that the land has been made suitable for the proposed use.

Where there is an unexpected find of potentially contaminated material and further investigations find that contamination makes the land unsuitable for the proposed use and requires remediation, the proponent will be required to;

- **amend the development application** for the proposed use to include a remediation proposal, or
- submit a **new and separate development application** for the remediation.

Council's procedures for considering site remediation proposals are set out in figure 4.

SEPP 55 contains requirements with regard to the undertaking of remediation as ancillary development.

#### Timing of Remediation Work

1. Remediation work is ordinarily to be completed prior to the issue of a construction certificate and the commencement of other works.

Note: Validation reports confirming that the site is suitable for the intended use are generally required to be submitted with the application for a Construction Certificate and prior to the commencement of other works. A copy of the validation report must be forward to the consent authority as soon as available.

When it is not feasible to complete remediation works prior to other development works (i.e. premature removal of power poles) Council may consider alternative timing of remediation works where:

- a) It can be demonstrated that the works may occur concurrently with other works; or
- b) The applicant has provided an interim opinion letter from a NSW Accredited Site Auditor in support of the proposed timing.

### **8.1 Category 1 Remediation Work**

Remediation work, which requires development consent, is known as category 1 work. All category 1 remediation works are deemed to be advertised development and as such the details of the proposed works are required to be advertised in a local newspaper for 30 days and the adjoining property owners notified of the proposed works in accordance with Camden Development Control Plan 2019.

Category 1 refers to work:

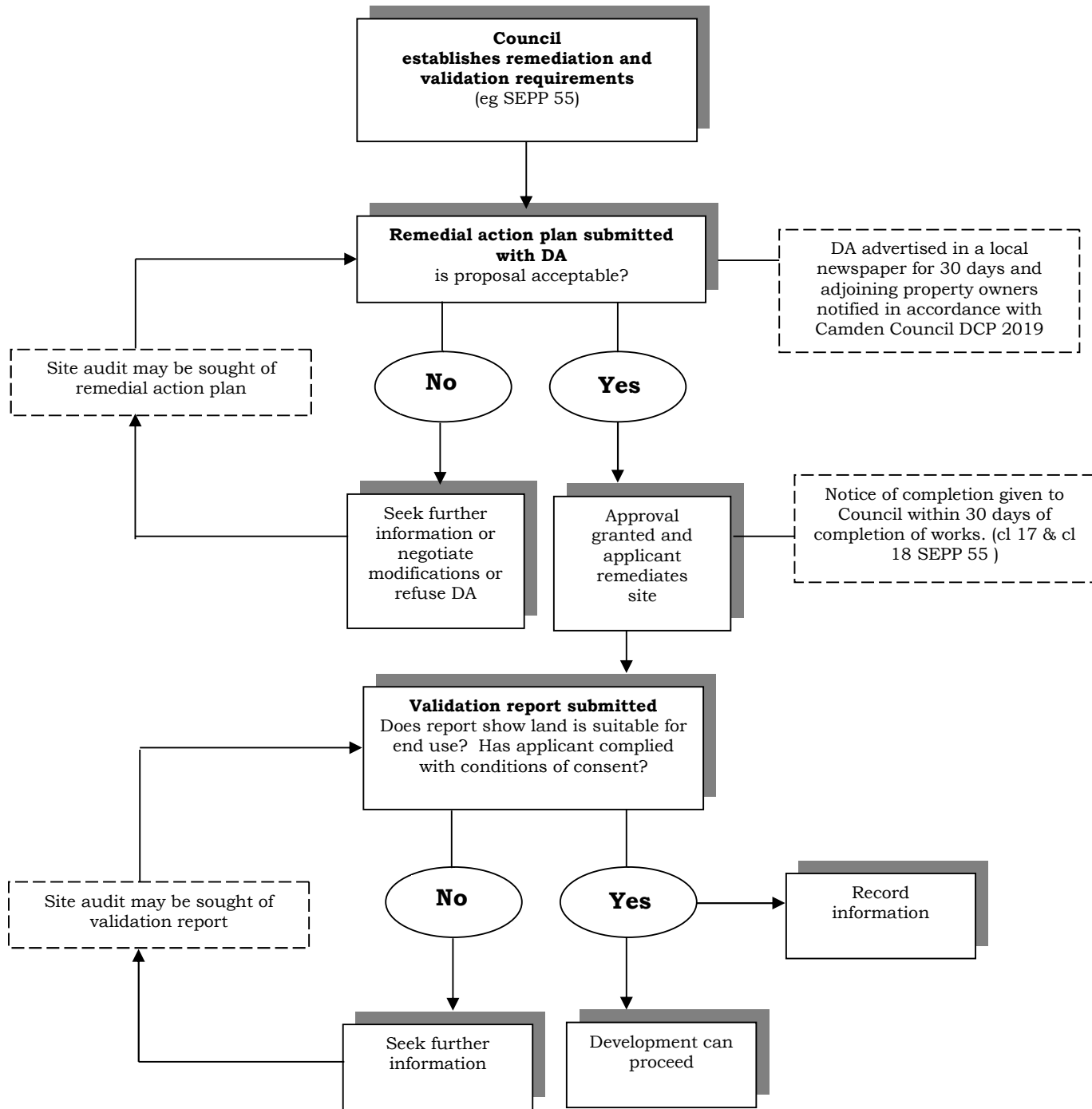
- which is proposed to be carried out in a manner which is inconsistent with the requirements of this policy; or

- which requires consent in accordance with Part 3, Clause 11, subclause (4) of Sydney Regional Environmental Plan No. 20 Hawkesbury-Nepean River (no. 2 -1997). \* **Note: As SREP No.20 applies to Camden, all remediation works proposed to be undertaken within Camden LGA are deemed to be category1 and require development consent.**
- which is designated development under Schedule 3 of the EP&A Regulation or under a planning instrument; or
- proposed on land identified as critical habitat under the *Threatened Species Conservation Act 1995*; or
- likely to have a significant effect on a critical habitat or a threatened species, population or ecological community; or
- which requires consent under another State Environmental Planning Policy or a Regional Environmental Plan; or
- is proposed in an area or zone identified in a planning instrument as being an area of environmental significance as identified in SEPP 55 - Remediation of Land.

#### 8.1.1 Notice of completion

- A notice of completion of category 1 remediation work that incorporates a validation report must be given to Council within 30 days of completion of the work.
- Council's procedures for category 1 remediation works are set out in Figure 4.

**Figure 4: Process for Category 1 Remediation Work**



## 8.2 Remediation Sites

Under the *Contaminated Land Management Act 1997*, the EPA may declare that land is a *remediation site* if land has been determined by the EPA to be contaminated in such a way as to present a significant risk of harm to human health or the environment. There does not have to be a new use proposed on the land for this to occur. The EPA may issue a direction (known as a Remediation Order) to remediate a remediation site. The Department of Planning, Industry and Environment is the consent authority for proposals affecting remediation sites.

## 8.3 When is a Remedial Action Plan Required?

**A RAP is required to be submitted to Council for all remediation work.** An appropriately qualified consultant in accordance with the EPA's guidelines must prepare a RAP.

## 8.4 What are the Standards for Remediation Work?

All remediation work must be undertaken in accordance with the requirements of this policy and be carried out in accordance with relevant NSW EPA guidelines and regulations.

Council will impose conditions on the undertaking of remediation work to ensure compliance with Council's standards and to minimise the impact of the proposal.

***Note regarding proposed reuse of material:*** Soils remediated to remove asbestos contamination, that have been validated to comply with the Health Screening Levels contained in the National Environment Protection (Assessment of Site Contamination) Measure 1999 (Amended 2013), shall be placed, where practical, in the same location where the contaminated material was originally excavated from (buried below finished ground level).

## 8.5 Unexpected Finds

Should any suspect materials (identified by unusual staining, odour, discolouration or inclusions such as building rubble, asbestos, ash material, etc) be encountered during any stage of works (including earthworks, site preparation or construction works, etc), such works shall cease immediately until a qualified environmental specialist has been contacted and conducted a thorough assessment.

In the event that contamination is identified as a result of this assessment and remediation is required, all works shall cease in the vicinity of the contamination and a Section 4.55 Modification application shall be submitted to Council for approval of a RAP or an amendment to the approved RAP. Council shall be notified immediately of the unexpected finds.

## 9. Information Recording

### 9.1 Property Information System

Council maintains a property information system, which is continually updated with information such as land use history, contamination and remediation. Such information includes details of initial evaluations or site investigations, notification of remediation, site audit statements and assists Council in the decision making process. To assist in identifying potential risks from land contamination, this information is available for access by the wider community by written request. A fee may be applicable for conducting the relevant property searches as set out in Council's annual fees and charges schedule.

### 9.2 Section 10.7 Certificates

In issuing *Section 10.7(2)* Certificates, Council is required to advise whether the land is significantly contaminated, subject to a management order, subject of an approved voluntary management proposal, subject to an ongoing maintenance order, or subject of a site audit statement (within the meaning of the Act).

Where contamination reports or information that is relevant to the land is received, these documents will be recorded on Council's property information system and *Section 10.7(5)* certificates will include advice generally consistent with the following:

#### Contamination Information

Council's policy 'Management of Contaminated Lands' applies to the whole of the council area and may restrict, development of land. The policy is implemented when zoning, or land use changes, or when further development is proposed, where land has been used for contaminating or potentially contaminating activities, including those activities listed in schedule 1 of the policy.

In relation to this policy there are report/s and information which apply to the land. Further details can be obtained from Council, please contact Council's customer service.

Note: The report/s and information which apply to the land may be either:

- Preliminary/detailed contamination investigations, identifying whether there is or was any contamination or potential contaminating activities affecting the land;
- Remediation action plans setting out works required to deal with any contamination and make the land suitable for its intended use;
- Validation reports and/or independent site audits which verify the satisfactory completion of remediation (decontamination works).
- Environmental management plans.

## References

ANZECC & NHMRC 1992 *The Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites*.

EPA 1997 *Guidelines for Consultants Reporting on Contaminated Sites*.

EPA 1998 *Guidelines for the NSW Auditor Scheme*.

*EPA 2018 Contaminated Lands Consultants Policy (version 2)*

Managing Land Contamination - Planning Guidelines SEPP 55 - Remediation of Land, 1998 Department of Urban Affairs and Planning & Environmental Protection Authority

State Environmental Planning Policy No 55 - Remediation of Land, 1998.

Refer Appendix 3 for copies of the following correspondence.

Johnston. N, n.d., "Clarification of the EPA document Contaminated Sites: Sampling Design Guidelines", NSW Department of Environment and Conservation.

Mullins. D, 2007, "Clarification of Advice re SEPP 55", NSW Government Department of Planning.



## Appendix 1

### Some Activities that may Cause Contamination

Industry	Type of Chemical	Associated Chemicals
Extensive Agriculture i.e. Grazing of livestock.		Where a preliminary investigation has not identified any chemical use (excluding those used for domestic purposes) on the land currently or previously used for grazing, a detailed investigation will not be required for this land.
Agriculture & Intensive Livestock Agriculture & Horticulture i.e. Dairy Farms, Market Gardens, Orchards, and the like.		See Fertiliser, Insecticides, Fungicides and Herbicides under 'Chemicals manufacture and use'
Airports	Hydrocarbons Metals	Aviation fuels Particularly aluminium, magnesium, chromium
Asbestos production and disposal		Asbestos
Battery manufacture and recycling	Metals Acids	Lead, manganese, zinc, cadmium, nickel, cobalt, mercury, silver, antimony Sulfuric acid
Breweries/distilleries	Alcohol	Ethanol, methanol, esters
Chemicals	Acid/alkali manufacture and use	Mercury (chlor/alkali), sulfuric, hydrochloric and nitric acids, sodium and calcium hydroxides
	Adhesives/resins	Polyvinyl acetate, phenols, formaldehyde, acrylate, phthalates
	Dyes	Chromium, titanium, cobalt, sulphur and nitrogen organic compounds, sulphates, solvents
	Explosives	Acetone, nitric acid, ammonium nitrate, pentachlorophenol, ammonia, sulfuric acid, nitroglycerine, calcium cyanamide, lead, ethylene glycol, methanol, copper aluminium, bis(2-ethylhexyl) adipate, dibutyl phthalate, sodium hydroxide, mercury silver.
Industry	Type of Chemical	Associated Chemicals
	Fertiliser	Calcium phosphate, calcium sulfate, nitrates, ammonium sulfate, carbonates, potassium, copper, magnesium, molybdenum, boron, cadmium

	Flocculants	Aluminium
	Foam production	Urethane, formaldehyde, styrene
	Fungicides	Carbamates, copper, sulfate, copper chloride, sulfur, chromium, zinc
	Herbicides	Ammonium thiocyanate, carbamates, organochlorines, organophosphates, arsenic, mercury, triazines
	Paints	
	• heavy metals	Arsenic, barium, cadmium, chromium, cobalt, lead, manganese, mercury, selenium, zinc
	• solvents	Toluene oils either natural (eg pine oil) or synthetic
	Pesticides	Arsenic, lead, organochlorines, organophosphates, sodium tetraborate, carbamates, sulfur, synthetic pyrethroids
	• active ingredients	
	• solvents	Xylene, kerosene, methyl isobutyl ketone, amyl acetate, chlorinated solvents
	Pharmaceutical	
	• solvents	Acetone, cyclohexane, methylene chloride, ethyl acetate, butyl acetate, methanol, ethanol, isopropanol, butanol, pyridine methyl ethyl ketone, methyl isobutyl ketone, tetrahydrofuran
	Photography	Hydroquinone, sodium carbonate, sodium sulfite, potassium bromide, monoethyl para-aminophenol sulfate, ferricyanide, chromium, silver, thiocyanate, ammonium compounds, sulfur compounds, phosphate, phenylene diamine, ethyl alcohol, thiosulfates, formaldehyde
	Plastics	Sulfates, carbonates, cadmium, solvents, acrylates, phthalates, styrene
	Rubber	Carbon black
	Soap/detergent	
	• general	Potassium compounds, phosphates, ammonia, alcohols, esters, sodium hydroxide, surfactants (sodium lauryl sulfate), silicate compounds
	• acids	Sulfuric acid and stearic acid
	• oils	Palm, coconut, pine, tea tree
<b>Industry</b>	<b>Type of Chemical</b>	<b>Associated Chemicals</b>
	Solvents	
	• general	Ammonia
	• hydrocarbons	eg BTEX (benzene, toluene, ethylbenzene, xylene)
	• chlorinates	eg trichloroethane, carbon tetrachloride,

	organics	methylene chloride
Defence works		see Explosives under `Chemicals manufacture and use` also `Foundries`, `Engine works` and Service stations
Drum reconditioning		see `Chemicals manufacture and use`
Dry cleaning		Trichlorethylene and 1,1,1,-trichloroethane Carbon tetrachloride Perchlorethylene
Electrical		PCBs (transformers and capacitors), solvents, tin, lead, copper, mercury
Engine works	Hydrocarbons Metals Solvents Acids/Alkalis Refrigerants	Chlorofluorocarbons hydrochlorofluorocarbons hydrofluorocarbons
	Anti-freeze	Ethylene glycol, nitrates, phosphates, silicates
Foundries	Metals	Particularly aluminium, manganese, iron, copper, nickel, chromium zinc, cadmium and lead and oxides, chlorides, fluorides and sulfates of these metals
	Acids	Sulfuric and phosphoric Phenolics and amines coke, graphite dust
Gas works	Inorganics	Ammonia, cyanide, nitrate, sulfide, thiocyanate Aluminium, antimony, arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, selenium, silver, vanadium, zinc
	Organics	BTEX, phenolic, PAHs and coke
Iron and steel works		BTEX, phenolics, PAHS, metals and oxides of iron, nickel, copper, chromium, magnesium manganese and graphite
Landfill sites		Alkanes, ammonia, sulfides, heavy metals, organic acids
<b>Industry</b>	<b>Type of Chemical</b>	<b>Associated Chemicals</b>
Marinas		see `Engine works` and Electroplating metals under `Metal treatments`
	Anti-fouling paints	Cooper, tributyltin (TBT)
Metal treatments	Electroplating	
	• metals	Nickel, chromium, zinc, aluminium, copper, lead, cadmium, tin
	• acids	Sulfuric, hydrochloric, nitric, phosphoric

	• general	Sodium hydroxide, 1,1,1-trichloroethane, tetrachloroethylene, toluene, ethylene glycol, cyanide compounds
	Liquid carburising baths	Sodium, cyanide, barium, chloride, potassium chloride, sodium chloride, sodium carbonate, sodium cyanate
Mining and extractive		Arsenic, mercury and cyanides, and also explosives under 'Chemicals manufacture and use'  Aluminium, arsenic, copper, chromium, cobalt, lead, manganese, nickel, selenium, zinc and radio-radionuclides  The list of heavy metals should be decided according to the composition of the deposit and known impurities
Power (timber)	Poles	Polycyclic aromatic hydrocarbons (PAH's)
	Power stations	Asbestos, PCBs, fly ash metals, water treatment chemicals
	Printing shops	Acids, alkalis, solvents, chromium  see Also Photography under 'Chemicals manufacture and use'
	Railway yards	Hydrocarbons, arsenic, phenolics (creosote), heavy metals, nitrates, ammonia
	Scrap yards	Hydrocarbons, metals, solvents
	Service stations and fuel storage facilities	Aliphatic hydrocarbons BTEX (ie benzene, toluene, ethylbenzene, xylene)  PAHs  Phenols  Lead
	Sheep and cattle dips	Arsenic, organochlorines, organophosphates, carbamates, synthetic pyrethroids
	Smelting and refining	Metals, the fluorides, chlorides and oxides of copper, tin, silver, gold, selenium, lead and aluminium
	Tanning and associated trades	Metals  Chromium, manganese, aluminium
<b>Industry</b>	<b>Type of Chemical</b>	<b>Associated Chemicals</b>
	General	Ammonium sulfate, ammonia, ammonium nitrate, arsenic phenolics, formaldehyde, sulfide, tannic acid
Water and sewage treatment plants	Metals	Aluminium arsenic, cadmium, chromium, cobalt, lead, nickel, fluoride, lime, zinc

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Wood preservation

Metals

Chromium, copper, arsenic

Naphthalene, ammonia, pentachlorophenol,  
dibenzofuran, anthracene, biphenyl, ammonium  
sulfate, quinoline, boron, creosote,  
organochlorine pesticides

Source: Appendix 1 of Australian Standard AS4482.1-1997 – Guide to the Sampling and Investigation of Potentially Contaminated Soil. Part 1: Non-Volatile and Semi-Volatile Compounds.

**NOTE:** It is not sufficient to rely solely on this list to determine whether a site is likely to be contaminated or not. The list is a guide only.

## Appendix 2

### **List of Auditors - Accredited by the Environmental Protection Authority under the Contaminated Land Management Act, 1997. (Source: EPA 4 September, 2019)**

The EPA periodically updates this list of accredited auditors. Enquires about the NSW Site Auditor Scheme may be directed to telephone (02) 9995 5342. An updated list is available on the Internet at [www.epa.nsw.gov.au/your-environment/contaminated-land/site-auditor-scheme/accredited-site-auditors](http://www.epa.nsw.gov.au/your-environment/contaminated-land/site-auditor-scheme/accredited-site-auditors)

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**RELEVANT LEGISLATIVE INSTRUMENTS:**

*Contaminated Land Management Act 1997*  
*Environmental Planning and Assessment Act 1979*

**RELATED POLICIES, PLANS AND PROCEDURES:**

State Environmental Planning Policy No. 55 - Remediation of Land commenced 28 August 1998  
Managing Land Contamination: Planning Guidelines, August 1998  
National Environmental Protection (Assessment of Site Contamination) Measure 1999 (Amended 2013)

**RESPONSIBLE DIRECTOR:**

Planning and Environment

**APPROVAL:**

Council

**HISTORY:**

<b>Version</b>	<b>Approved by</b>	<b>Changes made</b>	<b>Date</b>	<b>EDMS Number</b>
1	Council	New	26/02/2008	
2	Reviewed without change	No changes	09/11/2017	15/217153
3	ELG	Minor administrative amendments	14/02/2020	15/217153