

Development Control Plan No

29



Contaminated Land Policy & Development Controls

Including Amendment No. 1



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Marrickville Council Development Control Plan No. 29—Contaminated Land Policy and Development Controls

About the Contaminated Land Policy and Development Controls

Council has developed a policy in relation to the identification, control and management of contaminated land. The main aims of the policy are to ensure that when land is developed, the potential of contamination affecting human health and the environment are properly addressed. The policy is a comprehensive guide for development on land that is or may be contaminated. This summary sheet provides a quick reference to Council's policies and procedures relating to land contamination issues.

How to Use the Contaminated Land Referral Table

There are 4 principal users of this Plan, as follows:

- 1) Owners and prospective purchasers of property investigating whether land may be contaminated and persons intending to carry out development on land;
- 2) Persons intending to carry out remediation of land;
- 3) Persons carrying out remediation works; and
- 4) Independent auditors, contaminated land specialists and Council planning officers.

The Plan is divided into 8 sections, which apply to the different users of the plan. A referral table is provided below as a quick reference to direct you to the relevant sections of the Plan for your purposes.

USER	RELEVANT SECTIONS OF THE PLAN
<p>Owner or prospective purchaser investigating whether land may be contaminated and persons intending to carry out development on land.</p>	<p>Section 2: Council's Information System This section details what records Council maintains, its legal obligations in relation to land contamination and how to access this information.</p> <p>Section 4: Rezoning Applications This section outlines how contamination issues will be considered in the rezoning process.</p> <p>Section 5: Development Assessment This section specifies the steps and information requirements in the assessment of remediation proposals.</p>
<p>Persons who are intending to carry out remediation.</p>	<p>Section 3: Development Consent Processes for Remediation This section specifies what type of approval is required for proposed remediation works and notification requirements associated with remediation proposals.</p> <p>Section 5: Development Assessment This section specifies the steps and information requirements in the assessment of remediation proposals.</p>
<p>Persons carrying out remediation of land.</p>	<p>Section 6: Remediation Development Controls This section provides development controls for the carrying out of remediation works.</p>
<p>Independent auditors, contaminated land specialists and Council planning officers.</p>	<p>Section 7: Independent Auditing This section details under what circumstances Council may require an independent site audit and what information a site audit is to contain.</p>

Where to Obtain Further Information

- The Town Planner or Building Inspector identified in your Development Consent notification.
- Council's Environment Officer ☎ 9335 2000
- Council's Archives Section ☎ 9335 2000
- Technical details of land investigation procedures are available in the Environment Protection Authority's (EPA) Guidelines for Consultants Reporting on Contaminated Sites 1997.
- EPA's website at www.epa.nsw.gov.au for a list of EPA accredited Site Auditors.

Disclaimer

Marrickville Council has prepared this document in good faith exercising all due care and attention, but no representation or warranty, express or implied, is made as to the relevance, accuracy or completeness or fitness for purpose of this document in respect of any particular user's circumstances. Users of this document should satisfy themselves concerning its application to, and where necessary.

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Amendments to DCP 29

Amendment No 1 sets new hours of operation for category 2 remediation works in Section 6.1. Adopted 15 June 2004. Effective 21 June 2004.

Section 1 Preliminaries

1.1 Legal Reference

This Development Control Plan (DCP) has been prepared in accordance with Section 72 of the Environmental Planning & Assessment Act, 1979.

The DCP may be cited as “Marrickville Development Control Plan No. 29—Contaminated Land Policy and Controls”.

The DCP was adopted by Council on 2 November, 1999 and came into operation by public notification on 9 February, 2000.

1.2 Purpose of the Plan

This plan forms the basis for the control and management of contaminated land within the Marrickville local government area. The plan has been prepared in accordance with the Environmental Planning & Assessment Act, 1979, State Environmental Planning Policy No.55—Remediation of Land (SEPP 55) and the *Managing Land Contamination: Planning Guidelines*.

In accordance with the *Managing Land Contamination: Planning Guidelines*, this plan provides the policy framework for the integration of land contamination management controls and policies into the local planning and development process.

1.3 Objectives

The objectives of this plan are to:

- (a) Implement a cautionary approach by identifying and dealing with contamination issues at an early stage in the planning process in order to prevent harm and avoid unnecessary restrictions on land use.
- (b) Provide information to support decision-making and inform the community of procedures relating to the control and management of contaminated land.
- (c) Ensure council does not incur any liability in exercising its planning functions in relation to contaminated land by adhering to policies substantially in accordance with relevant state planning guidelines.

1.4 Application

This plan applies to all land within the Marrickville Council area. The plan supplements SEPP 55 which specifies when development consent is or is not required for remediation works. SEPP 55 also specifies that development consent is required where remediation work is carried out or is to be carried out in a manner that does not comply with a policy made by council under the *Contaminated Land Planning*.

Guidelines. This plan represents Council policy under the *Contaminated Land Planning Guidelines*. In the event of an inconsistency between this plan and SEPP 55 the latter will prevail.

1.5 Abbreviations

ANZECC	Australian and New Zealand Environment and Conservation Council
BTEX	Benzene/Toluene/Ethylbenzene/Xylene
DA	Development Application
d(BA)	Decibels—A weighted
DCP	Development Control Plan
DLWC	Department of Land and Water Conservation
EPA	NSW Environment Protection Authority
HCB	Hexachlorobenzene
LEP	Local Environmental Plan
LGA	Local Government Area
NEHF	National Environmental Health Forum
RAP	Remedial Action Plan
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Poly chlorinated biphenol
SEPP 55	State Environmental Planning Policy No. 55—Remediation of Land
SSROC	Southern Sydney Regional Organisation of Councils
TPH	Total Petroleum Hydrocarbons

Section 2 Council's Information System

2.1 Council Records and Community Information

Council has an important role in supplying stakeholders with information regarding land use history, land contamination and remediation. Council also has a statutory responsibility under s. 59 of the *Contaminated Land Management Act 1997* to include information provided to Council by either the EPA or accredited auditors on certificates issued for the purposes of s. 149 *Environmental Planning and Assessment Act 1997*.

The collection of information about land contamination is an ongoing process. Information concerning contaminated land will be added to Council's property information system when development and subdivision applications are processed or when information is provided to Council via other sources.

2.2 How Council's Information is Managed

Council's records regarding contamination issues are dynamic and will change over time as land is investigated, remediated and validated. Registers of contaminated land falsely imply comprehensive knowledge of site contamination issues which is not always the case. Standards for remediation may also change over time to accommodate changing community values. For these reasons Council does not hold a register of contaminated sites.

Council's records in relation to site contamination issues are kept on individual files for each parcel of land. To assist Council in the management of land contamination issues the following information is recorded for individual parcels of land:

- Site contamination reports submitted to Council (i.e. Preliminary Investigation, Detailed Investigation, Remedial Action Plans, Validation and Monitoring Reports)
- Site Audit Statements received by Council
- EPA declarations and orders issued under the CLM Act (including voluntary investigation & remediation proposals agreed to by the EPA)
- Prior notification of category 2 remediation works
- Notification of completion of category 1 and category 2 remediation work

2.3 Planning Certificates

Under s.149 of the *Environmental Planning & Assessment Act 1997*, a person may purchase a section 149 planning certificate from Council containing advice on prescribed matters about land. The existence of a council policy to restrict the use of land is a prescribed matter.

Section 149(2) planning certificates issued by Council will not contain specific details of site contamination or potential site contamination for individual parcels of land other than as provided for in 2.3.1 of this Plan. Council has adopted this approach for the following reasons:

- 1) Council records may not contain details of potential land contamination where land uses were undertaken prior to the introduction of record keeping, were established illegally, or benefit from existing use rights.
- 2) Council records regarding contamination issues are dynamic and will change over time as land is investigated, remediated and validated.

2.3.1 What Information will Planning Certificates Contain?

The *Contaminated Land Management Act, 1997* includes requirements relating to notification of contaminated land issues that are to be included on s. 149 planning certificates. Council will include the following notations on the basis of advice from the Environment Protection Authority or as otherwise required by the legislation, where applicable:

- *The Council has received written notice from the EPA that the land has been declared to be within an investigation area or a remediation site and Council has received no notification that the declaration has been revoked at the date of this certificate.*
- *The Council has received written notice from the EPA that the land is subject to an investigation or remediation order and Council has received no notification that the order has been revoked at the date of this certificate.*
- *The Council has received written notice from the EPA that the land to which the certificate relates is the subject of a voluntary investigation proposal or voluntary remediation proposal agreed to by the EPA and Council has received no notification of the completion of the carrying out of the investigation or remediation proposal, at the date of this certificate.*
- *The land to which the certificate relates is or has been the subject of a site audit statement (SAS) received by Council after 1 June, 1998.*

Section 149(2) certificates issued by Council will contain information on the matters listed above. Council will not provide any additional information in relation to site contamination issues under s. 149(5), with the following notation on all s.149(5) certificates:

Marrickville Development Control Plan (DCP) No. 29—Contaminated Land Policy and Development Controls lists other sources of information on potential land contamination, not provided in Section 149(2) certificates, that Council may possess. Persons should make their own enquiries in accordance with the procedures specified in Marrickville DCP No. 29 in order to determine whether there is additional information in Council's possession in relation to land contamination for a particular parcel of land.

As well as containing information on prescribed matters, all s. 149(2) planning certificates issued by Council will contain the following wording about the existence of this plan incorporating Councils' policy:

Council has adopted by resolution and in accordance with s.72 of the Environmental Planning & Assessment Act, 1979 a development control plan incorporating Council's policy on contaminated land. The Plan has been prepared substantially in accordance with State Environmental Planning Policy No.55, and the Contaminated Land Planning Guidelines. This policy may affect development of land:

- (a) which is affected by contamination;*
- (b) which has been used for certain purposes;*
- (c) in respect of which there is not sufficient information about contamination;*
- (d) which is proposed to be used for certain purposes;*
- (e) in other circumstances contained in the development control plan and policy;*

and in some cases may restrict the development of land.

2.4 Access to Council Information

Stakeholders that may need to access Council records in relation to land contamination include: current occupiers of sites; potential purchasers of land; contaminated land consultants and the community.

Council's policy on contaminated land allows a person to access information on individual parcels of land in relation to the following:

TYPE OF INFORMATION	HOW TO OBTAIN INFORMATION
Current and past development, building, subdivision and rezoning applications.	Written request to the Director, Development & Environmental Services in accordance with Council's schedule of fees
Information on reports held by Council in relation to site contamination issues.	Written request to the Director, Development & Environmental Services in accordance with Council's schedule of fees. The written request shall specify what information is requested, who is requesting the information and what is the intended use of the information.
Information on any restrictions placed on the land	Section 149(2) certificate
Information on whether any declarations or orders made or voluntary proposals agreed to under CLM Act have been provided to Council by the EPA or whether Council has received any Site Audit Statements	Section 149(2) certificate
Copies of any Site Audit Statements	Written request to the Director, Development & Environmental Services in accordance with Council's schedule of fees.
Any other information held by Council (other than stated above) in relation to site contamination issues	Written request to the Director, Development & Environmental Services in accordance with Council's schedule of fees. The written request shall specify what information is requested, who is requesting the information and what is the intended use of the information.

Note: In some circumstances Council may not be able to provide full access to its records held on land contamination issues. These circumstances may include when the information held by Council is subject to legal privilege and when the information requested is intended to be published or used without prior permission of Council, the current site owner and author of the contamination reports.

Section 3 **Development Consent Processes for Remediation**

SEPP 55 specifies when consent is required, and when it is not required, for remediation work. This section outlines processes relating to category 1 and category 2 remediation work. Remediation work that is not carried out in accordance with the development controls contained in Section 6 of this plan is category 1 remediation work and requires Council consent.

3.1 Category 1 Remediation Work

All category 1 remediation work requires development consent. All category 1 remediation work must be advertised for 30 days pursuant to s. 29A of the Environmental Planning and Assessment Act.

If remediation works are category 1 remediation work, the applicant is required to lodge a development application for the remediation. Alternatively, an application already being considered by Council may incorporate the remediation through the submission of a Remedial Action Plan (RAP). See Section 5.4 for details of Remedial Action Plans.

3.2 Category 2 Remediation Work

Category 2 remediation work is all remediation work that is not category 1 (Refer SEPP 55). Category 2 remediation work does not require development consent from Council. Category 2 remediation work is to be carried out in accordance with the notification requirements in Section 3.3 and development controls in section 6 of this Plan. If the development controls in Section 6 can not be complied with the remediation work is category 1 and requires development consent.

3.3 Notification Requirements

3.3.1 Prior Notice

Notice of remediation work must be given to Council at least 30 days before commencement of works or as otherwise provided for in SEPP 55. The notification for the category 2 remediation works shall:

- ▶ provide the name, address and telephone number of the person who has the duty of ensuring that the notice is given;
- ▶ provide details of the remediation work (including a RAP, where appropriate and a Soil & Water Management Plan);
- ▶ explain why the work is category 2 remediation work by reference to SEPP 55 and this plan;
- ▶ specify the land on which the work is to be carried out and provide a map of the location of the land, and
- ▶ provide estimates of the dates for the commencement and completion of the work

3.3.1 Prior Notice—Outcomes

A review of the details provided will be undertaken when prior notice is given to Council. If the information is inadequate the responsible person(s) will be notified and required to address these prior to works commencing.

If works commence without all the necessary details being provided Council will consider prosecuting the responsible person(s).

Random inspections should also be undertaken during the remediation works to confirm that the development controls in Section 6 are being adhered with.

3.3.2 Notice of Completion

Notice of the completion of category 2 remediation work must be given to Council within 30 days after the completion of the work. The notification shall:

- › be in writing and be signed by the person who carried out the work;
- › provide the persons name, address and business telephone number;
- › provide details of the person's qualifications to carry out the work;
- › specify the land on which the work was undertaken and provide a map of the land and the location of the work;
- › state when the work was completed;
- › specify the uses of the land, and the substances, that contaminated it in such a way as to present a risk of harm to human health or some other aspect of the environment;
- › specify the use(s) of the land immediately before the work started;
- › describe the method of remediation used in the work and the guidelines that were complied with in the work;
- › specify the standard of remediation achieved;
- › state what actions must be maintained in relation to the land after the completion of the remediation work if the standard of remediation achieved is to be maintained.

Council will need to be satisfied that the site is suitable for the proposed use when considering any subsequent development applications for the subject site. Accordingly, it is recommended that comprehensive records are maintained during the remediation works including any RAP's or validation reports.

3.3.2 Notice of Completion—Outcomes

If Council is not satisfied with the notice of completion details submitted at the completion of the remediation works it may require a site audit statement (see Section 7) prior to consenting to any future building works.

In cases of significant departures from this DCP, prosecutions will be considered.

Section 4 Rezoning (LEP Preparation) Applications

Council must consider contamination issues in zoning and rezoning proposals. Council will not include land in a zone that would permit more sensitive land uses unless:

- Council has considered whether the land is contaminated.
- If the land is contaminated, Council is satisfied that the land is suitable in its contaminated state for all the purposes for which land in the zone concerned is permitted to be used.
- If the land requires remediation to be made suitable for any purpose for which land in that zone is permitted to be used, Council is satisfied that provisions exist to ensure that contamination is satisfactorily addressed at the Development Application stage.

4.1 When does Council Require a Preliminary Investigation to be Undertaken?

Council will require a preliminary investigation to be submitted with zoning and rezoning applications where the land concerned is:

- Within an investigation area under the CLM Act.
- Land which development for a purpose referred to in Table 1 is being, or is known to have been, carried out.
- Where the rezoning is to enable the carrying out of development listed in Table 2.

A preliminary investigation will also be required if Council has reasonable grounds to believe the land may be contaminated because of the lands' history or lack of knowledge of the lands history, condition, or other information known to Council.

Council's procedure for considering land contamination issues for zoning or rezoning applications is shown in Figure 1.

4.2 How are Contaminated Land Issues Addressed for Rezoning Involving Multiple Properties?

When Council considers a rezoning proposal that covers more than one property it may not be practical for Council to be satisfied that every part of the land is suitable for the permissible use(s) at the rezoning stage. In these circumstances, Council will consider the findings of a preliminary investigation, and may include provisions in an LEP or DCP to ensure that the potential for contamination and the suitability of the land for any proposed use is further addressed prior to the redevelopment of the land.

Section 5 Development Applications

When assessing development applications, Council is required to consider ...*the suitability of the site for the development*. The risk from contamination to health and the environment is included in this assessment.

Council will not consent to the carrying out of any development on land unless:

- It has considered whether the land is contaminated.
- If the land is contaminated, it is satisfied that the land is suitable in its contaminated state for the purpose for which the development is proposed to be carried out, and
- If the land requires remediation to be made suitable for any purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

The following subsections outline when and what information Council will require relating to site contamination issues with development applications. Council's procedure for considering land contamination issues associated with development applications is shown in Figure 2.

5.1 Stage 1—Initial Evaluation

5.1.1 Objectives

To ensure that potential land contamination issues are considered early in the assessment process.

To determine what stage in the assessment process to proceed to.

To avoid unnecessary delays and restrictions on land uses.

5.1.2 What is an Initial Evaluation?

An initial evaluation is undertaken by Council using Council records and information provided by the applicant in the Statement of Environmental Effects. The initial evaluation is to determine whether land contamination issues should be further considered in the assessment process and if so at what stage investigations should commence. An initial investigation is to be undertaken for all development applications where a current site audit statement is not available.

5.1.3 When Does Council Require an Initial Investigation?

A checklist of matters to be considered in the initial evaluation is included as Appendix 2. All development applications must include the checklist, which is to be reviewed and completed by the assessing officer.

The initial evaluation checklist specifies when contamination issues should be further considered and what stage in the assessment process to proceed to depending on the circumstances.

5.1.4 Stage 1—Outcomes

If the initial evaluation concludes that land contamination is not a relevant consideration for the development proposal then Council will not require any further investigations.

If the initial evaluation finds that land contamination is a possibility it is necessary to proceed to a subsequent stage.

Determining which stage it is appropriate to proceed to will depend on the level and nature of information available and should be determined on a case by case basis with reference to the initial evaluation checklist.

5.2 Stage 2—Preliminary Site Investigation

5.2.1 Objective

To identify any past or present potentially contaminating activities and to provide a preliminary assessment of site contamination.

5.2.2 What is a Preliminary Site Investigation?

A preliminary site investigation is an appraisal of the likelihood of site contamination in the form of a report based on records of a sites history and a visual site inspection. Where information on site history is limited or inconclusive, preliminary soil sampling results may need to be included in the report.

5.2.3 When Does Council Require a Preliminary Site Investigation?

- Council will require a preliminary investigation to be submitted with a development application as determined by the initial evaluation or where the land concerned is within an investigation area under the CLM Act, 1997.

5.2.4 Preparing a Preliminary Site Investigation Report

The preliminary site investigation shall be carried out in accordance with the requirements of the NSW EPA's *Guidelines for Consultants Reporting on Contaminated Sites*. The proponent is responsible for engaging a suitability qualified consultant to undertake the preliminary site investigation. In addition, the proponent is responsible for all costs borne in engaging the consultant and site auditor.

A list of land uses that are potentially contaminating are included in Table 1. Applicants may also request Council to perform a search of its records to determine previous approved developments at the site (see Section 2).

5.2.5 Stage 2—Outcomes

If Council is satisfied that the preliminary site investigation justifiably concludes that the site is suitable for the proposed use without remediation, then Council will not require any further investigations.

If the preliminary investigation concludes that there is the potential for land contamination Council will require further investigations.

Note: If Council is not satisfied with the findings of the preliminary site investigation it may require a detailed site assessment.

5.3 Stage 3—Detailed Site Investigation

5.3.1 Objective

To define the extent and degree of contamination and to assess the potential risk posed by contaminants to human health and the environment.

To obtain sufficient information for the issuing of an appropriately conditioned development consent where category 2 remediation is required or for the development of a Remedial Action Plan to be submitted where the remediation work will be category 1.

5.3.2 When Does Council Require a Detailed Site Contamination Investigation?

Council will require a detailed site investigation to be undertaken when the results of the initial evaluation or preliminary investigation demonstrate the potential for, or existence of contamination, which may not be suitable for the proposed use of the land. Stage 2 and Stage 3 investigations may be combined where the initial evaluation confirms that the land is known to contain or have contained a potentially contaminating activity.

5.3.3 Preparing a Detailed Site Contamination Investigation Report

The detailed site investigation shall be carried out in accordance with the requirements of the NSW EPA's *Guidelines for Consultants Reporting on Contaminated Sites*. The proponent is responsible for engaging a suitability qualified consultant to undertake the detailed site investigation. The proponent is responsible for all costs borne in engaging the consultant and site auditor (see Section 7).

5.3.4 Stage 3—Outcomes

The detailed investigation report should specify whether the site is suitable for the proposed use and if remediation is necessary, the report should state what remediation options exist, the method to be used and whether these works will be category 1 or 2 remediation works.

If the remediation option specified in the detailed contamination report is category 2 remediation work development consent is not required. If the remediation works are associated with a development application being considered by Council, a conditional consent can be issued requiring that the remediation works are carried out in accordance with this Plan.

If the remediation works will be category 1 development consent is required and a RAP or new development application will be required.

Note: A site audit statement may be requested at the conclusion of this stage (see Section 7).

5.4 Stage 4—Remedial Action Plan

5.4.1 Objectives

To set remediation objectives and determine the most appropriate remedial strategy.

5.4.2 When Does Council Require a Remedial Action Plan (RAP)?

Council will require the submission of a RAP if the detailed investigation concludes that the land is not suitable for the proposed use in its present state and category 1 remediation is required.

An RAP may also be required with development applications for building works lodged after category 2 remediation works have been carried out.

5.4.3 Preparing a Remedial Action Plan

The RAP should document the remedial works to be undertaken at the site and also contain an environmental management plan and occupational health and safety plan for the remedial works. The RAP is to be undertaken in accordance with the NSW EPA's *Guidelines for Consultants Reporting on Contaminated Sites*.

5.4.4 Stage 4—Outcomes

If satisfied with the RAP, Council may issue a conditional consent requiring that works are carried out in accordance with the RAP and that a validation/ monitoring report and a site audit statement are submitted prior to building work commencing.

5.5 Stage 5—Validation/Monitoring Reports

5.5.1 Objectives

To demonstrate that the objectives stated in the RAP have been achieved and relevant conditions of development consent have been complied with.

5.5.2 When Does Council Require a Validation and Monitoring Report?

Council will require a validation/monitoring report to be submitted after remediation works have been completed.

5.5.3 Preparing Validation and Monitoring Reports

The validation/monitoring is to be conducted in accordance with the NSW EPA's *Guidelines for Consultants Reporting on Contaminated Sites*. The validation/monitoring report must confirm statistically that the remediated site complies with the clean-up criteria set for the site.

5.5.4 Stage 5—Outcomes

The site has been appropriately remediated and is suitable for the proposed use.

Figure 1—Processes for Development Assessment

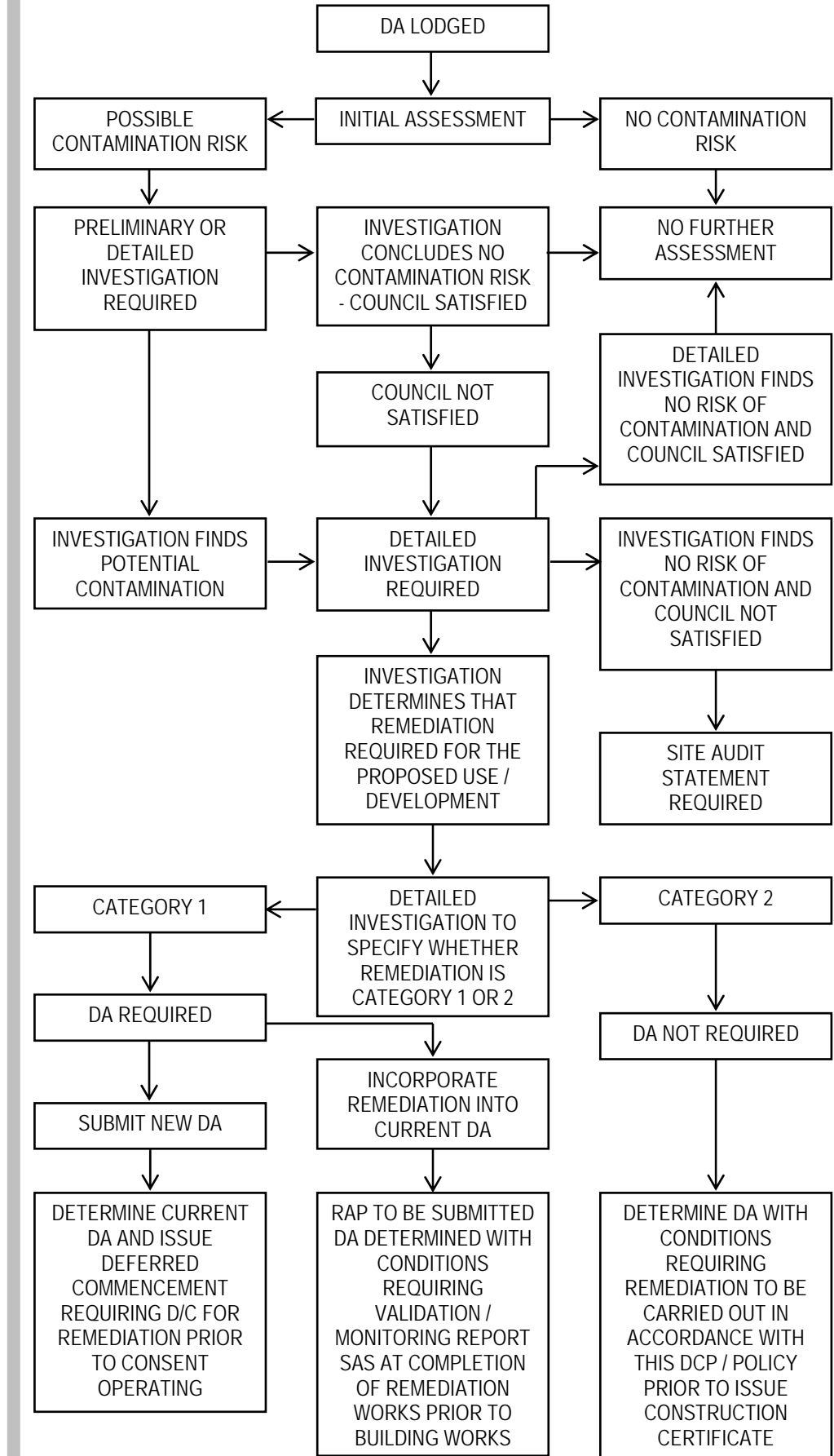


Figure 2—Summary of Councils' Requirements for the Documentation and Procedure for Consultants Reporting on Contaminated Sites

Preliminary Site Investigation

- Identify all past and present potentially contaminating activities.
- Identify potential contamination types.
- Discuss the site condition.
- Provide a preliminary assessment of site contamination.
- Assess the need for further investigation.
- A copy of the Preliminary Site Investigation Report is to be provided to Council as required by the Environmental Planning and Assessment Act, 1979 and Contaminated Land Management Act, 1997.
- Refer to the *NSW EPA Guidelines for Consultants Reporting on Contaminated Sites* 1998 for exact details on compiling a Preliminary Site Investigation.



Detailed Site Investigation

The Detailed Site Investigation report should give comprehensive information on:

- Issues raised in the Preliminary Investigation.
- The type extent and level of contamination and assess:
 - Contaminant dispersal in air, surface water, groundwater, soil and dust.
 - The potential effects of contaminants on public health, the environment and building structures (where applicable) off site impacts on soil, sediment and biota.
 - The adequacy and completeness of all information available to be used in making decisions on remediation.
 - Where remediation is required, specify whether the works will constitute category 1 or 2 remediation with regard to State Environmental Planning Policy No.55—Remediation of Land and Marrickville Development Control Plan No.29—Contaminated Land Policy and Controls.
 - A copy of the Detailed Site Investigation report is to be provided to Council as required by the Environmental Planning and Assessment Act, 1979 Contaminated Land Management Act, 1997.
 - Refer to the *NSW EPA Guidelines for Consultants Reporting on Contaminated Sites* 1998 for exact details on compiling a Detailed Site Investigation.



Site Remedial Action Plan (RAP)

The RAP should:

- Set the remediation goals that ensure the remediation site will be suitable for the proposed use and will pose no unacceptable risk to human health or to the environment.
- Document in detail all procedures and plans to be implemented to reduce the risks to acceptable levels for the proposed site use.
- Establish the environmental safe guards required to complete the remediation in an environmentally acceptable manner.
- Identify and include proof of the necessary approvals and licenses required by regulatory authorities.
- A copy of the Site Remedial Action Plan is to be provided to Council as required by the Environmental Planning and Assessment Act, 1979 and or Contaminated Land Management Act, 1997.
- Refer to the *NSW EPA Guidelines for Consultants Reporting on Contaminated Sites* 1998 for exact details on compiling a Remedial Action Plan.



Validation and Site Monitoring Reports

- Where remedial action has been carried out, the site must be validated to ensure that the objectives stated in the RAP have been achieved. A report detailing the results of the site validation is required.
- A copy of the Validation Report and Monitoring Reports is to be provided to Council as required by the Environmental Planning and Assessment Act, 1979 Contaminated Land Management Act, 1997.
- Refer to the *NSW EPA Guidelines for Consultants Reporting on Contaminated Sites* 1998 for exact details on compiling a Validation report and Monitoring reports.



Summary Site Audit Report and Site Audit Statements

- A site auditor must prepare and finalise a Summary Site Audit Report. The report should document the information reviewed and give the basis and rationale for the conclusions contained in the Site Audit Statement.
- A copy of the Summary Site Audit Report is to be lodged with Council as required by the Environmental Planning and Assessment Act, 1979 Contaminated Land Management Act, 1997.
- A Site Audit Statement is to be issued detailing the suitable use of the land following remediation.
- Refer to the *NSW EPA Guidelines for the NSW Site Auditor Scheme 1998* for exact details on compiling a Summary Site Audit Report and issuing of a Site Audit Statement.

Section 6 Remediation Development Controls

Council has identified a number of development controls for remediation works. These controls have been formulated to ensure that remediation works do not adversely affect the environment or public amenity.

All remediation works are to be conducted in accordance with development controls listed in this section. Category 2 remediation work that does not comply with the site management controls outlined in this section will be classified as category 1 remediation work and will require consent.

Development applications lodged for category 1 remediation works should identify any areas of non-compliance with the site management provisions listed below and state why alternative site management measures are required.

Note: It is the responsibility of those remediating a site to ensure compliance with all relevant environmental legislation and regulations. Compliance with the site management provisions outlined below does not imply that all relevant environmental legislation and regulations have been complied with. Non-compliance with relevant environmental legislation and regulations may incur on-the-spot fines of up to \$1500 for minor offences, or fines up to \$1 Million and 7 years imprisonment for more serious offences.

6.1 Hours of Operation

All remediation work shall be conducted within the following hours:

Monday–Friday	7am–6pm
Saturday	8am–1pm

No work is permitted on Sundays or Public Holidays.

Exception for category 2 remediation work affected by Sydney Airport's Obstacle Limitation Surface levels:

Where category 2 remediation work is affected by Sydney Airport's Obstacle Limitation Surface levels but otherwise complies with the other remediation development controls in this section, the permissible hours of construction/operation of remediation work of such category 2 remediation work may be varied if the Council is of the opinion that the carrying out of such remediation work would not have an unreasonable impact on the amenity of the locality. Any variation to the construction/operation hours may only occur if the Council has given its prior written approval to the varied construction/operation hours.

6.2 Soil and Water Management

The Southern Sydney Regional Organisation of Councils publication *Soil and Water Management for Urban Development* outlines Council's requirement for the preparation of a soil and water management plan. All remediation works shall be conducted in accordance with a soil and water management plan. A copy of the plan shall be kept on-site and made available to Council Officers on request. All erosion and sediment measures must be maintained in a functional condition throughout the remediation works.

6.3 Stockpiles

- No stockpiles of soil or other materials shall be placed on footpaths or nature strips unless prior Council approval has been obtained.
- All stockpiles of soil or other materials shall be placed away from drainage lines, gutters or stormwater pits or inlets.
- All stockpiles of soil or other materials likely to generate dust or odours shall be covered.
- All stockpiles of contaminated soil shall be stored in a secure area and be covered if remaining more than 24 hours.

6.4 Site Access

Vehicle access to the site shall be stabilised to prevent the tracking of sediment onto the roads and footpath. Soil, earth, mud or similar materials must be removed from the roadway by sweeping, shovelling, or a means other than washing, on a daily basis or as required. Soil washings from wheels shall be collected and disposed of in a manner that does not pollute waters.

6.5 Excavation Pump-out

All excavation pump-out water must not exceed suspended solid concentrations of 50 parts per million, and must be analysed for pH and any contaminants of concern identified during the preliminary or detailed site investigation, prior to discharge to the stormwater system. The analytical results must comply with relevant EPA and ANZECC standards for water quality.

Other options for the disposal of excavation pump-out water include disposal to sewer with prior approval from Sydney Water, or off-site disposal by a liquid waste transporter for treatment/disposal to an appropriate waste treatment/processing facility.

6.6 Landscaping/Rehabilitation

All exposed areas shall be progressively stabilised and revegetated on the completion of remediation works.

6.7 Bunding

All landfarming areas for hydrocarbon contaminated soils shall be bunded (floors and walls) to contain surface water runoff from the landfarm areas and to prevent the leaching of hydrocarbons into the subsurface. All surface water discharges from the bunded areas to Council's stormwater system shall not contain detectable levels of TPH or BTEX.

6.8 Noise

Category 2 remediation work shall comply with the Environment Protection Authority Environmental Noise Manual for the control of construction site noise which specifies that:

- For a cumulative period of exposure to construction activity noise of up to four weeks, the LA10 (15 minutes) emitted by the works to specific residences should not exceed the LA 90 background level by more than 20 dBA.

- For a cumulative construction noise exposure period of between four to 26 weeks, the emitted LA10 noise level should not exceed the LA90 level by more than 10 dBA.
- For a cumulative construction noise exposure period greater than 26 weeks, the emitted LA10 noise level should not exceed the LA90 level by more than 5 dBA.

All equipment and machinery shall be operated in an efficient manner to minimise the emission of noise.

6.9 Vibration

The use of any plant and/or machinery shall not cause vibrations to be felt or capable of being measured at any premises.

6.10 Air Quality (Dust and Odours)

Dust emissions shall be confined within the site boundary. The following dust control procedures may be employed to comply with this requirement:

- erection of dust screens around the perimeter of the site;
- securely covering all loads entering or exiting the site;
- use of water sprays across the site to suppress dust;
- covering of all stockpiles of contaminated soil remaining more than 24 hours; and
- keeping excavation surfaces moist.

An authorised Council Officer shall detect no odours at any boundary of the site during remediation works. The following procedures may be employed to comply with this requirement:

- use of appropriate covering techniques such as the use of plastic sheeting to cover excavation faces or stockpiles;
- use of fine mist sprays;
- use of a hydrocarbon mitigating agent on the impacted areas/materials; and
- adequate maintenance of equipment and machinery to minimise exhaust emissions.

Volatile or semi-volatile compounds that could generate odours include monocyclic aromatic hydrocarbons (styrene, benzene, toluene, xylene, ethyl benzene, butyl benzene), polycyclic aromatic hydrocarbons (PAHs), hydrogen sulphide, hydrogen cyanide, pesticides, PCBs, and herbicides.

Records of volatile emissions and odours shall be logged, kept on-site and made available to Council Officers on request. Discharges from soil vapour extraction systems shall be regularly monitored in order to determine the mass of hydrocarbons that are being discharged to the atmosphere. Contingency measures for the collection and treatment of hydrocarbon offgas shall be put in place prior to the commissioning of the soil vapour extraction systems. All discharge vents from soil vapour extraction systems shall be located a minimum of 50 metres from any residential property boundary, road or recreational area. No material shall be burnt on-site.

6.11 Storage of Chemicals

Storage and handling of hydrocarbon products shall be conducted in accordance with the relevant requirements under *AS1940-1993 The storage and handling of flammable and combustible liquids*.

Sufficient supplies of absorbent materials shall be kept on-site to recover any liquid spillage. Liquid spills shall be cleaned up using dry methods, by placing absorbent material on the spill and sweeping or shoveling the material into a secure bin. Spilt materials shall be disposed of in an odour free manner that does not pollute waters.

6.12 Groundwater

A license shall be obtained from the Department of Land and Water Conservation for approval to extract groundwater under the provisions of *Part V of the Water Act, 1912*.

Groundwater shall be analysed for pH and any contaminants of concern identified during the preliminary or detailed site investigation, prior to discharge to the stormwater system. The analytical results must comply with relevant EPA and ANZECC standards for water quality.

Other options for the disposal of groundwater include disposal to sewer with prior approval from Sydney Water, or off-site disposal by a liquid waste transporter for treatment/disposal to an appropriate waste treatment/processing facility.

6.13 Transport

All haulage routes for trucks transporting soil, materials, equipment or machinery to and from the site shall be selected to minimise odour to adjacent premises and utilise State Roads and minimise use of local roads.

Applicants may consult Council prior to selecting the most suitable transport route. A map showing the state roads in the Marrickville LGA is provided in Figure 4.

Remediation work shall ensure that all site vehicles:

- conduct deliveries of soil, materials, equipment or machinery during the hours of remediation work identified in 6.1;
- securely cover all loads to prevent any dust or odour emissions during transportation;
- do not track soil, mud or sediment onto the road.

6.14 Hazardous Materials

Hazardous and/or intractable wastes arising from the remediation work shall be removed and disposed of in accordance with the requirements of the NSW EPA and WorkCover Authority, together with the relevant regulations.

Schedule 1 Hazardous Waste (as prescribed in the POE Act, 1997) must be carried out by a transporter licensed by the NSW Environment Protection Authority.

6.15 Disposal of Contaminated Soil

The disposal of contaminated soil shall have regard to the provision of both the *Protection of the Environment Operations Act and Regulations* and any relevant EPA guidelines such as the NSW EPA publication *Environmental Guidelines: Assessment, Classification and Management of Non-Liquid Wastes* (1997).

Any queries associated with the off-site disposal of waste from a contaminated site should be referred to the EPA's *Hazardous Materials Advice Unit*. If contaminated soil or other waste is transported to a site unlawfully, the owner of the waste and the transporter are both guilty of an offence.

6.16 Containment/Capping of Contaminated Soil

No contaminated soil shall be encapsulated or capped on the site that contains concentrations of contaminants that are above the soil investigation levels for urban development sites in NSW for the range of landuses permissible on the subject site. For example, a site zoned commercial/industrial shall not encapsulate or cap soil containing concentrations of contaminants above the 'commercial or industrial NEHF F health-based investigation levels'. The soil investigation levels for urban redevelopment in NSW are contained in the EPA's *Guidelines for the NSW Site Auditor Scheme*.

6.17 Importation of Fill

All fill imported on to the site shall be validated to ensure the imported fill is suitable for the proposed land use from a contamination perspective. Fill imported on to the site shall also be compatible with the existing soil characteristic for site drainage purposes.

Council may require details of appropriate validation of imported fill material to be submitted with any application for future development of the site. Hence all fill imported onto the site should be validated by either one or both of the following methods during remediation works:

- Imported fill should be accompanied by documentation from the supplier which certifies that the material is not contaminated based upon analyses of the material or the known past history of the site where the material is obtained; and/or
- Sampling and analysis of the fill material should be conducted in accordance with the EPA Sampling Design Guidelines (1995) to ensure that the material is not contaminated.

6.18 Site Signage and Contact Numbers

A sign displaying the contact details of the remediation contractor (and site facilitator if different to remediation contractor) shall be displayed on the site adjacent to the site access. This sign shall be displayed throughout the duration of the remediation works.

6.19 Community Consultation

Owners and/or occupants of premises adjoining the site shall be notified, in writing, at least seven days prior to the commencement of remediation works.

6.20 Site Security

The site shall be secured to ensure against unauthorised access by means of an appropriate fence.

6.21 Occupational Health & Safety

It is the employer's responsibility to ensure that all site remediation works shall comply with all Occupational Health and Safety and Construction Safety Regulations of the NSW WorkCover Authority. Safety monitoring for hydrocarbon emissions should be undertaken in accordance with Worksafe Time Weighted Averages Guidelines, 1991.

6.22 Removal of Underground Storage Tanks

The removal of underground storage tanks shall be undertaken in accordance with NSW WorkCover requirements which includes writing to the Chief Inspector of Dangerous Goods and complying with any conditions imposed.

The tank removal shall be conducted in accordance with the Australian Institute of Petroleum's Code of Practice "The Removal and Disposal of Underground Petroleum Storage Tanks (AIP CP22-1994). In the event of conflict between the Code of Practice and NSW WorkCover requirements, the latter shall prevail.

6.23 Tree Preservation

Remediation work shall not be carried out within 4 metres of the base of a tree, or adversely affect the appearance, health or stability of a tree, where works affecting the tree require Council approval.

6.24 Heritage Items

Remediation work shall not be undertaken on land containing an item of environmental heritage where the consent of Council is required.

Section 7 Independent Auditing

7.1 When Does Council Require a Site Audit Statement?

Council may request a site audit to be undertaken at prescribed stages (see Section 5) in the site investigation process. In accordance with the Managing Land Contamination Planning Guidelines, Council will require a site audit prepared by a NSW EPA accredited auditor for contaminated land if Council:

- *“believes on reasonable grounds that the information provided by the applicant is incorrect or incomplete;*
- *“wishes to verify whether the information provided by the proponent has adhered to appropriate standards, procedures and guidelines; or*
- *“does not have the internal resources to conduct its own technical review.”*
- *at the completion of category 1 remediation works or as required by a condition of a development consent.*

The proponent will be informed by Council if a site audit is required after Council has conducted a review of the contamination reports and associated documents (e.g. development application) submitted to Council. The proponent is responsible for engaging a NSW EPA accredited auditor for contaminated land to perform a site audit. In addition, the proponent is responsible for all costs borne in engaging a NSW EPA accredited auditor for contaminated land.

For sites which have complex issues associated with either the contamination assessment or remediation it is wise to engage a NSW EPA accredited auditor for contaminated land early on in the site assessment process.

7.2 What Should a Site Audit Cover?

The EPA *Guidelines for the NSW Site Auditor Scheme* outline what should be included in a site audit, however the guidelines state that in some situations Council may also need to contribute to defining the scope of the site audit.

As well as requiring a site audit to address any issues raised in s. 47(1)(b) *Contaminated Land Management Act 1997*, the following are examples of issues that Council may request a NSW EPA accredited auditor for contaminated land to address when conducting a site audit:

- a) Has the contaminated land consultant complied with all appropriate standards, procedures and relevant NSW EPA guidelines?
- b) What further investigations or remediation is required before the land is suitable for any specified use or range of uses?
- c) Whether the auditor considers that the proposed remediation is adequate, and if undertaken, will render the site to be suitable for the proposed use?
- d) Whether it can be concluded that there is no unacceptable off-site migration of contaminants, particularly via ground water?

- e) Whether the contamination conditions at the site are suitable for in-ground absorption of stormwater?

Either the proponent or the appointed NSW EPA accredited auditor for contaminated land shall liaise with Council during the preparation of the site audit to ensure that the scope of the site audit addresses the concerns raised by Council.

Before issuing a site audit statement, the site auditor must prepare and finalise a summary site audit report. The EPA *Guidelines for the NSW Site Auditor Scheme* outlines what must be included in a site audit report.

Section 8 Risk and Significant Risk of Harm from Contaminated Land

8.1 Determining Risk of Contamination

Determining in any particular case whether or not contamination presents a significant risk of harm can be complex and difficult. It involves considerations such as the type, nature, quantity and concentration of contaminants, how they manifest themselves, the characteristics they display and the nature of their impact in the particular medium. It also involves broader questions such as the current use of the land, who might be exposed to the contaminants under that use, and whether they would be exposed.

In recognition of the above issues, the CLM Act, 1997 does not attempt to define the nature or level of contamination that presents a risk of harm, noting that this depends on the site specific interplay between these factors. The CLM Act provides that where a risk would arise because of a proposed change of land use, this risk is handled through the planning process.

8.2 What is Risk of Harm?

The EPA's *Guidelines on Significant Risk of Harm from Contaminated Land and the Duty to Report* defines *risk of harm* to mean *whether it is probable that identified contamination will cause harm to human health or to the environment because of a combination of the following:*

- *Where the contamination is*
- *how much contamination there is*
- *what the contamination is*
- *the amount of exposure people, animals or plants have to the contamination*
- *pre-existing evidence of harm.*

The answers to the above mentioned questions may not always be clear-cut. To determine whether there is a risk of harm will often be a question of fact and degree and depend on consideration of all the relevant factors. For example, there may not be a risk where minor excavation is being undertaken for building works and the contamination is on an isolated or contained part of the site and clear occupational health and safety requirements are in place to protect workers; because worker location is physically removed from the area of contamination; or because site use is not continuous.

For further information in establishing whether there may be a risk of harm associated with a development proposal the EPA's *Guidelines on Significant Risk of Harm from Contaminated Land and the Duty to Report* should be consulted.

Table 1 Potential Causes of Land Contamination

Table 1 lists potential causes of land contamination and potentially contaminating land uses, which are referred to in this Plan.

acid/alkali plant and formulation
 agricultural/horticultural activities
 airports
 asbestos production and disposal
 chemicals manufacture and formulation
 defense works
 drum re-conditioning works
 dry cleaning establishments
 electrical manufacturing (transformers)
 electroplating and heat treatment premises
 engine works
 explosive industry
 gas works
 iron and steel works
 landfill sites
 lead processing
 metal treatment
 mining and extractive industries
 oil production and storage
 paint formulation and manufacture
 pesticide manufacture and formulation
 power stations
 railway yards
 scrap yards
 service stations
 sheep and cattle dips
 smelting and refining
 tanning and associated trades
 waste storage and treatment
 wood preservation

Source: Managing Land Contamination Planning Guidelines SEPP 55 - Remediation of Land, 1998, Department of Urban Affairs and Planning & NSW Environment Protection Authority

Table 2 Sensitive Uses

Child care centre
 Educational establishment
 Housing for aged or disabled persons
 Hospital
 Institution
 Motel
 New dwelling(s)
 Recreation area/establishment/facility

Appendix 1 Sources of Site History Information For Preliminary Site Investigations (Stage 1)

- i) Past aerial photographs
- ii) Council records—town planning, development and building applications, complaints, pollution incident reports
- iii) Local Historical Publications
- iv) Current and previous site owners
- v) Current and previous site workers
- vi) Long-term residents
- vii) Past and Present Telephone Books
- viii) Noxious Trades Act register of Noxious Trades
- ix) Sands Sydney and New South Wales Directory 1858-1932/3
- x) NSW Environment Protection Authority Section 35 Notices, past and present scheduled premises, unhealthy building land
- xi) Sydney Water Corporation Trade Waste Agreements
- xii) WorkCover Authority Dangerous Goods Branch
- xiii) Pacific Power sites containing present and past electrical substations

Appendix 2 Initial Evaluation Checklist

	QUESTION	ACTION	
1) Source: Development Application	Is the proposal for a sensitive use (Table 2) and could the proposed development also reasonably create a risk* of exposure if the site is contaminated?	Yes	Proceed to Stage 2 or Stage 3 (Preliminary or Detailed Investigation Stage).
		No	Proceed through checklist.
2) Source: Development Application	Does the proposal involve development that could reasonably create a risk* of exposure if the site is contaminated?	Yes	Proceed through checklist
		No	No further assessment required unless proposal involves earthworks, in which case proceed through checklist.
3) Source: Development /Proclaim	Is the land known to be contaminated?	Yes	Proceed to Stage 3 or Stage 4 (Detailed Investigation or RAP).
		No	Proceed through checklist.
4) Source: Development /Property files	Is the site currently used for a purpose in table 1 or has the site ever been used for a purpose in table 1?	Yes	Proceed to Stage 2 or 3.
		No	Proceed through checklist.
5) Source: Development/ Property files	Do Council's files contain any information concerning site contamination?	Yes	Review material and proceed to stage 2 to 7 depending upon information available.
		No	Proceed through checklist.
6) Source: Applicant information	Does any of the information provided by the applicant suggest possible site contamination?	Yes	Proceed to Stage 2 or 3.
		No	Proceed through checklist.
7) Source: Development/ Property files	Do Council's records adequately document the sites history?	Yes	No further investigations required.
		No	Proceed through checklist.
8) Source: Development/ Property files	Do Council's records indicate that any adjacent sites have been used for table 1 purposes?	Yes	If no indication of contamination on subject land, no further action required, otherwise proceed to Stage 2 (Preliminary Investigation Stage).
		No	No further investigations required.