

2.24

GENERIC PROVISIONS CONTAMINATED LAND







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Part 2 Generic Provisions

2.24 Contaminated Land

Land contamination is most often the result of past activities. It may result from an improper handling of chemicals during manufacturing or storage processes on or adjacent to the site.

This section forms the basis for the control and management of contaminated land within the Inner West Local Government Area (LGA). It has been prepared in accordance with the *Environmental Planning and Assessment Act, 1979* (EP&A Act), *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55) and the *Managing Land Contamination: Planning Guidelines*. In the event of an inconsistency between this DCP and SEPP 55, the latter prevails.

This section ensures the potential of contamination affecting human health and the environment is properly addressed during development.

2.24.1 Objectives

- 01 To implement a precautionary approach by identifying and dealing with contamination issues at an early stage in the planning process to prevent harm and avoid unnecessary restrictions on land use.
- 02 To provide information to support decision making and inform the community of procedures relating to the control and management of contaminated land.
- 03 To ensure Council does not incur any liability in exercising its planning functions in relation to contaminated land by adhering to relevant State planning guidelines.

2.24.2 Contaminated land

Section 6 of the EP&A Act defines contaminated land as:

“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 (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.”

2.24.3 Determining land contamination

Contaminated land has the potential to harm human health and the biophysical environment. When carrying out planning functions under the EP&A Act, a planning authority must consider if the land is contaminated, the level of contamination, if it is suitable in its contaminated state for the existing or future land uses and whether it can be remediated. Failure to consider the possibility of contamination at appropriate stages of the planning process may result in inappropriate land use decisions which impact the safety of existing and new structures or increase risk to human health and the broader biophysical environment.

2.24.4 Council information on contamination

2.24.4.1 Council records and community information

Council supplies stakeholders with information regarding land use history, land contamination and remediation.

Council also has a statutory responsibility under Section 59 of the Contaminated Land Management Act 1997 (CLM Act) to include information provided to Council by either a relevant authority or accredited auditors on certificates issued for the purposes of Section 149 of the EP&A Act.

2.24.4.2 Information management

The collection of information about land contamination is ongoing. 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.

Registers of contaminated land are not always comprehensive as records change over time. Standards for remediation may also change to accommodate changing community values. For those 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 parcels of land.

2.24.4.3 Planning certificates

Under Section 149 of the EP&A Act, a person may purchase a Section 149 planning certificate from Council containing advice on prescribed matters about a particular parcel of land. The existence of a council policy to restrict the use of land is a prescribed matter.

Section 10.7(5) planning certificates issued by Council will not contain specific details of site contamination or potential site contamination for individual parcels of land, because:

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 the current land use benefits from existing use rights; and
2. Council records regarding contamination issues are dynamic and will change over time as land is investigated, remediated and validated.

Council only provides information on a planning certificate which is required under Section 59 of the CLM Act and Section 10.7 of the EP&A Act.

2.24.4.4 Access to Council information

Stakeholders needing 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 information in Table 1.



Table 1: Information that can be obtained from Council

TYPE OF INFORMATION	HOW TO OBTAIN INFORMATION
Current and past development, building, subdivision and rezoning applications	Development Research Request to Council in accordance with Council's schedule of fees.
Information on reports held by Council in relation to site contamination issues	Development Research Request to Council in accordance with Council's schedule of fees. The request should 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 10.7(2) Certificate
Information on any ongoing maintenance orders or voluntary proposals agreed to under CLM Act have been provided to Council by the Department of Environment Climate Change and Water (DECCW) or whether Council has received any site audit statements	Section 10.7(2) Certificate
Copies of any site audit statements	Development Research Request to Council in accordance with Council's schedule of fees.
Any other information held by Council (other than stated above) in relation to site contamination issues	Development Research Request to Council in accordance with Council's schedule of fees. The written request should specify what information is requested, who is requesting the information and what is the intended use of the information.

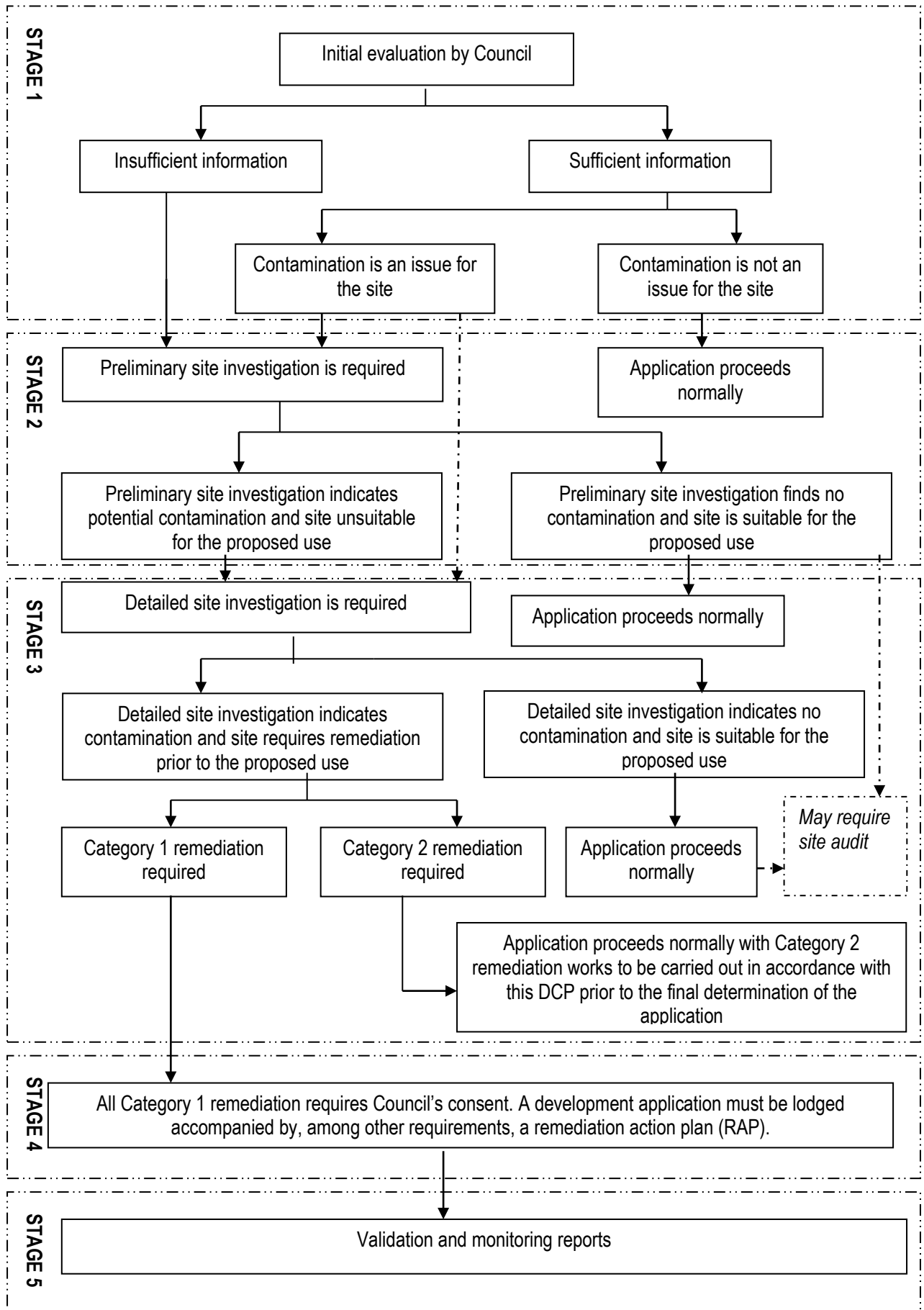
NB *In some circumstances Council may not be able to provide full access to its records held on land contamination issues. These circumstances may include when the information held by Council is subject to legal privilege and when the information requested is intended to be published or used without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

2.24.5 Process for assessing land contamination and its remediation

Council is required to consider contamination issues in assessing all development applications. Figure 1 explains the process for identifying land contamination and the development application assessment process.

NB *The level of contamination investigation and the necessity for remediation depends upon the past uses of the site and extent and sensitivity of the proposed use.*

Figure 1: General contamination assessment process





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

2.24.5.1 Initial evaluation by Council (Stage 1)

An initial evaluation is undertaken by Council for all development applications using Council's records and information provided by the applicant in the Statement of Environmental Effects (SEE). The initial evaluation will determine if the subject land is contaminated and whether land contamination issues should be further considered in the assessment process, based on the past uses of land and the sensitivity of the proposed land use.

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

2.24.5.2 Preliminary site investigation (Stage 2)

A preliminary site investigation appraises the likelihood of site contamination in the form of a report based on records of a site's history and a visual site inspection. The preliminary site investigation report should:

1. Discuss the site condition;
2. Identify all past and present potentially contaminating activities;
3. Outline areas of potential environmental concerns and potential contamination types;
4. Provide a preliminary assessment of site contamination;
5. Assess the need for further investigations; and
6. Identify a sampling and analysis plan to enable further assessment of the site.

NB *Where information on site history is limited or inconclusive, preliminary soil sampling results may need to be included in the preliminary site investigation report.*

The preliminary site investigation must be carried out in accordance with the requirements of DECCW's *Guidelines for Consultants Reporting on Contaminated Sites*.

A list of potentially contaminating land uses is included in Table 2. Applicants may also request Council to perform a search of its records to check previously approved developments at the site. See Section 2.24.4.

If the preliminary site investigation satisfies Council that the site is suitable for the proposed use without remediation Council will not require any further investigations.

NB *It is not sufficient to rely solely on the contents of Table 2 to determine whether a site is likely to be contaminated or not. Table 2 is a guide only. A conclusive status can only be determined after a review of the site history and, if necessary, sampling and analysis.*

Table 2: Activities that may cause contamination

Source: *Managing Land Contamination Planning Guidelines – SEPP 55 - Remediation of Land.*

2.24.5.3 Detailed site investigation (Stage 3)

The detailed site investigation assesses the soil and groundwater conditions within a site. Stage 2 and Stage 3 investigations may be combined where the site history or initial evaluation confirms that the land is known to contain or has contained a potentially contaminating activity.

The detailed site investigation must be carried out in accordance with the requirements of DECCW's *Guidelines for Consultants Reporting on Contaminated Sites*.

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 those works will be Category 1 or 2 remediation works. The detailed site investigation should provide comprehensive information on:

1. Issues raised in the preliminary investigation.
2. The type, extent and level of contamination, including an assessment of:
 - Contaminant dispersal in air, surface water, groundwater, soil and dust;
 - The potential effects of contaminants on public health, the environment and building structures;
 - Off-site impacts on soil, sediment and biota (where applicable); and



- The adequacy and completeness of all information available to be used in making decisions on remediation.

If the remediation option specified in the detailed site investigation report is Category 1 remediation work, development consent is required. See Section 2.24.10.1 for details on Category 1 remediation works.

If the remediation option specified in the detailed contamination report is Category 2 remediation work, development consent is not required. See Section 2.24.10.2 for details on Category 2 remediation works.

2.24.5.4 Category 1 works (Stage 4)

All Category 1 remediation works require Council's consent via a development application. Where Category 1 remediation is required for an already lodged application, one of the following options is to be adopted:

1. The applicant may choose to withdraw the original application and lodge a fresh application for Category 1 remediation works;
2. Council may choose to refuse the application due to lack of certainty on the suitability of the land for the intended use and the time required to complete the remediation process; or
3. In exceptional circumstances, where Council believes the land can be made suitable for the intended use following remediation works, a RAP may be accepted as part of the original application and a deferred commencement consent may be issued.

2.24.5.5 Validation and monitoring reports (Stage 5)

A validation report demonstrates that the objectives stated in the RAP have been achieved and relevant conditions of development consent (where applicable) have been complied with.

Council will require a validation report to be submitted after remediation works have been completed. The validation report must confirm statistically that the remediated site complies with the clean-up criteria set for the site.

A site monitoring report details the proposed monitoring strategy, parameters to be monitored, monitoring locations, frequency of monitoring and reporting requirements.

A site monitoring report is required where a full clean-up is not feasible, or on-site containment of contamination is proposed, and an ongoing monitoring program is required.

The validation report is to be conducted in accordance with DECCW's *Guidelines for Consultants Reporting on Contaminated Sites*.

- C1** Council will not accept a development application without:
- i. A preliminary investigation report where a site is known to be contaminated, or is currently used or has been used in the past for a purpose identified in Table 2 (under Section 2.24.5.2 of this DCP) or the site concerned is located within an investigation area under the CLM Act;
 - ii. A detailed investigation report where the preliminary investigation report for a site identifies the need for detailed investigation;

- iii. A RAP where the investigation report(s) identify the need to remediate a site; or
- iv. A validation report where a site has been remediated.

2.24.6 Remediation Action Plan (RAP)

A RAP establishes the remediation objectives and details the strategy for remediating the site to make it suitable for the proposed use.

- C2** The RAP demonstrates how the applicant proposes to reduce the risks of contamination to acceptable levels and achieve the clean-up objectives for the site. The RAP must:
- i. Set remediation goals to ensure the remediated site will be suitable for the proposed use and will pose no unacceptable risk to human health or to the environment;
 - ii. Document in detail all procedures and plans to be implemented to reduce risks to acceptable levels for the proposed site use;
 - iii. Establish the environmental safeguards required to complete the remediation in an environmentally acceptable manner; and
 - iv. Identify and include proof of the necessary approvals and licences required by regulatory authorities.

2.24.6.1 *When a RAP is required*

A RAP is required when a site has been identified as being contaminated during the detailed site investigation and requires remediation to make the site suitable for the proposed use.

A remediation action plan (RAP) is to be undertaken in accordance with DECCW's *Guidelines for Consultants Reporting on Contaminated Sites*.

2.24.7 Independent site auditing

- C3** If Council is not satisfied with the findings of an investigation report or validation report it may require a site auditor's statement.
- C4** The proponent is responsible for engaging and funding a suitably qualified consultant to undertake the necessary contamination investigations, prepare the RAP where required, supervise any remediation works and prepare a site validation report.

2.24.7.1 *When a site audit statement is required*

Council may request a site audit to be undertaken at prescribed stages in the site investigation process. In accordance with the *Managing Land Contamination Planning Guidelines* (under SEPP 55), Council will require a site audit prepared by a DECCW accredited auditor for contaminated land if Council:

1. Believes on reasonable grounds that the information provided by the proponent is incorrect or incomplete;
2. Wishes to verify whether the information provided by the proponent has adhered to appropriate standards, procedures and guidelines;
3. Does not have the internal resources to conduct its own technical review; or
4. Requires the audit 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 following a review of the contamination reports and associated documents submitted to Council.

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

2.24.7.2 Site audit inclusions

The DECCW *Guidelines for the NSW Site Auditor Scheme* outline what should be included in a site audit. 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 Section 12 of CLM Act, the following are examples of issues that Council may request a DECCW accredited auditor for contaminated land to address:

1. Has the contaminated land consultant complied with all appropriate standards, procedures and relevant DECCW guidelines?
 2. What further investigations or remediation is required before the land is suitable for any specified use or range of uses?
 3. Does the auditor consider the proposed remediation adequate, and if undertaken, will the remediation render the site to be suitable for the proposed use?
 4. Can it be concluded that there is no unacceptable off-site migration of contaminants, particularly via groundwater?
 5. Are the contamination conditions at the site suitable for in-ground absorption of stormwater?
- C5** Either the proponent or the appointed DECCW accredited auditor for contaminated land must liaise with Council during the preparation of the site audit to ensure the scope of the site audit addresses the concerns raised by Council.
- C6** Before issuing a site audit statement, the site auditor must prepare and finalise a summary site audit report.

The DECCW Guidelines for the NSW Site Auditor Scheme outlines what must be included in a site audit report.

2.24.8 Consideration of contamination for rezoning applications

- C7** Council must consider contamination issues in zoning and rezoning proposals. Council must not include land in a zone that would permit more sensitive land uses unless:
- i. Council has considered whether the land is contaminated;
 - ii. 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 proposed zone is permitted to be used;
 - iii. If the land requires Category 1 remediation to be made suitable for any purpose for which land in the proposed zone is permitted to be used, remediation of the land is carried out prior to lodging the rezoning application;

- iv. If the requirement for Category 1 remediation emerges during Council's assessment of the rezoning application, such application is withdrawn or Council refuses the application on the grounds of uncertainty attached to the suitability of land for the permissible land uses and the time required to complete the remediation works; and
- v. In exceptional circumstances, where Council has sufficient information to form a view that the land can be made suitable for its intended use through Category 1 remediation work, a RAP is submitted for Council's consideration as part of the original rezoning application.

2.24.9 Consideration of contamination for rezoning applications involving multiple sites

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 those circumstances, Council will consider the findings of a preliminary investigation report, and may include provisions in a Local Environmental Plan (LEP) or Development Control Plan (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.

2.24.10 Process for remediation works

SEPP 55 specifies when consent is required for remediation work. This section outlines processes relating to Category 1 and Category 2 remediation works.

2.24.10.1 *Category 1 remediation work*

- C8** All Category 1 remediation work requires development consent.
- C9** All Category 1 remediation work must be advertised for 30 days pursuant to Part 9A, Schedule 1 of the EP&A Act.
- C10** If the Category 1 remediation works are associated with a development application being considered by Council, that application may either be withdrawn or Council may choose to refuse the application in view of the uncertainty attached to the suitability of the land for its intended use and the time required to complete the remediation process.
- C11** In exceptional circumstances, where Council is satisfied that the land can be made suitable following remediation works, a RAP may be accepted as part of the original application and a deferred commencement consent may be issued requiring all remediation works to be completed and a validation report being submitted to Council's satisfaction prior to commencing any other building works.

2.24.10.2 *Category 2 remediation work*

Category 2 remediation work is all remediation work that is not Category 1 (refer to SEPP 55). Category 2 remediation work does not require development consent from Council.

- C12** If the Category 2 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 DCP.



- C13** Category 2 remediation work must be carried out in accordance with the following notification requirements and development controls at Section 2.24.11.

2.24.10.3 Notification requirements for Category 2 remediation works

Prior notice

- C14** 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 must:
- i. Provide the name, address and telephone number of the person who has the duty of ensuring that the notice is given;
 - ii. Provide details of the remediation work (including a RAP, where appropriate, and a soil and water management plan);
 - iii. Explain why the work is Category 2 remediation work by reference to SEPP 55 and this DCP;
 - iv. Specify the land on which the work is to be carried out and provide a map of the location of the land; and
 - v. Estimate the dates for the commencement and completion of the work.

Notice of completion

- C15** 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 must:
- i. Be in writing and be signed by the person who carried out the work;
 - ii. Provide the person's name, address and business telephone number;
 - iii. Provide details of the person's qualifications to carry out the work;
 - iv. Specify the land on which the work was undertaken and provide a map of the land and the location of the work;
 - v. State when the work was completed;
 - vi. 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;
 - vii. Specify the use(s) of the land immediately before the work started;
 - viii. Describe the method of remediation used in the work and the guidelines that were complied with in the work;
 - ix. Specify the standard of remediation achieved; and
 - x. 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.

- NB** 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 RAPs or validation reports.

2.24.11 Development controls for remediation works

Council has identified a number of development controls for Category 1 and Category 2 remediation works. Those 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 Section 2.24.11. Category 2 remediation works that do not comply with the site management controls outlined in Section 2.24.11 will be classified as Category 1 remediation work and will require consent.

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

NB *Council must ensure that suitable conditions, to the effect of following controls, are imposed on any consent granted for a Category 1 remediation work.*

C16 Hours of operation

All remediation work must be conducted between the hours of 7:00am and 5:30pm Mondays to Saturdays, excluding Public Holidays. No work to be carried out on any Saturday that falls adjacent to a Public Holiday.

C17 Soil and water management

All remediation works must be conducted in accordance with a soil and water management plan. A copy of the plan must 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.

The Southern Sydney Regional Organisation of Councils (SSROC) publication and fact sheets *Do It Right On-Site Soil and Water Management for the Construction Industry* outlines Council's requirement for the preparation of a soil and water management plan.

C18 Stockpiles

- i. No stockpiles of soil or other materials must be placed on footpaths or nature strips without Council's approval.
- ii. All stockpiles of soil or other materials must be placed away from drainage lines, gutters or stormwater pits or inlets.
- iii. All stockpiles of soil or other materials likely to generate dust or odours must be covered.
- iv. All stockpiles of contaminated soil must be stored in a secure area and be covered if remaining for more than 24 hours.

C19 Site access

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

C20 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 identified during the preliminary or detailed site investigation, prior to discharge to the stormwater system. The analytical results must comply with relevant DECCW and Australia and New Zealand Environment and Conservation Council (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.

C21 Landscaping or rehabilitation

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

C22 Bunding

All land farming areas for hydrocarbon contaminated soils must be banded (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 banded areas to Council's stormwater system must not contain detectable levels of TPH or BTEX.

C23 Noise

Category 2 remediation work must comply with the relevant controls for construction site noise. All equipment and machinery must be operated in an efficient manner to minimise the emission of noise.

The Environmental Noise Manual (EPA, 1994) for the control of construction site noise specifies that:

1. *For a cumulative period of exposure to construction activity noise of up to four weeks, the L_{A10} (15 minutes) emitted by the works to specific residences should not exceed the L_{A90} background level by more than 20 dB(A).*
2. *For a cumulative construction noise exposure period of between 4 to 26 weeks, the emitted L_{A10} noise level should not exceed the L_{A90} level by more than 10 dB(A).*
3. *For a cumulative construction noise exposure period greater than 26 weeks, the emitted L_{A10} noise level should not exceed the L_{A90} level by more than 5 dB(A).*

C24 Vibration

The use of any plant and/or machinery must not cause vibrations at any premises.

C25 Air quality (dust and odours)

Dust emissions must be confined within the site boundary and comply with the dust control procedures:

- i. Erecting dust screens around the perimeter of the site;
- ii. Securely covering all loads entering or exiting the site;
- iii. Using water sprays across the site to suppress dust;
- iv. Covering all stockpiles of contaminated soil remaining more than 24 hours; or
- v. Keeping excavation surfaces moist.

An authorised Council officer should not detect odours at any boundary of the site during remediation works. The following procedures may be employed to comply with this requirement:

- i. Using appropriate covering techniques such as the use of plastic sheeting to cover excavation faces or stockpiles;
- ii. Using fine mist sprays;
- iii. Using a hydrocarbon mitigating agent on the impacted areas/materials; or
- iv. Adequately maintaining 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 must be logged, kept on site and made available to Council officers on request. Discharges from soil vapour extraction systems must be regularly monitored in order to determine the mass of hydrocarbons being discharged. Contingency measures for the collection and treatment of hydrocarbon offgas must be put in place prior to the commissioning of the soil vapour extraction systems. All discharge vents from soil vapour extraction systems must be located a minimum of 50 metres from any residential property boundary, road or recreational area. No material must be burnt on site.

C26 Storage of chemicals

Storage and handling of hydrocarbon products must be conducted in accordance with the relevant Australian Standard.

Australian Standard AS 1940-1993 The storage and handling of flammable and combustible liquid' provides relevant controls of storage of chemicals.

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

C27 Groundwater

A license must be obtained from relevant authority for approval to extract groundwater.

NSW Office of Water issues license to extract groundwater under the provisions of Part V of the Water Act, 1912.

Groundwater 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 DECCW 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.

C28 Transport

All haulage routes for trucks transporting soil, materials, equipment or machinery to and from the site must be selected to minimise odour to adjacent premises and utilise State roads and minimise the use of local roads. Applicants may consult Council prior to selecting the most suitable transport route. Remediation work must ensure all site vehicles:

- i. Conduct deliveries of soil, materials, equipment or machinery during the hours of remediation work identified in C16;
- ii. Securely cover all loads to prevent any dust or odour emissions during transportation; and
- iii. Do not track soil, mud or sediment onto the road.

C29 Hazardous materials

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

Schedule 1 Hazardous Waste (as prescribed in the Protection of the Environment Operations Act, 1997 (PEO Act) must be carried out by a transporter licensed by DECCW.

C30 Disposal of contaminated soil

The disposal of contaminated soil must be carried out in accordance with any applicable guidelines and regulations. 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.

Disposal of contaminated soil shall have regard to the provision of both the PEO Act and Regulations and any relevant DECCW guidelines such as Environmental Guidelines: Assessment, Classification and Management of Non-Liquid Wastes (EPA, 1997).

Any queries associated with the off-site disposal of waste from a contaminated site should be referred to DECCW's Hazardous Materials Advice Unit.

C31 Containment/capping of contaminated soil

Contaminated soil, containing concentrations of contaminants above the soil investigation levels for urban development sites in NSW (for the range of land uses permissible on the subject site) should not be encapsulated or capped on the site, unless it can be demonstrated that no alternative feasible options are available and that capping will result in full and permanent containment of contaminants. Capping is classified as Category 1 remediation work, which requires development consent and is subject to Category 1 processes outlined in this section of MDCP 2011. For example, a site zoned commercial/industrial must not encapsulate or cap soil containing concentrations of contaminants above the 'commercial or industrial NEHF F health-based investigation levels'. In certain circumstances, encapsulating or capping contaminated soil may be suitable, for example where an alternative form of remediation

poses environmental and human health risks, where the logistical and financial cost is significant or where Council owns the subject land and cost disincentives may affect the delivery of public benefit. In these cases, capped land must be adequately landscaped in accordance with Section 2.18 (Landscaping and Open Spaces) of this DCP, or in accordance with C21.

The soil investigation levels for urban redevelopment in NSW are contained in the publication *Guidelines for the NSW Site Auditor Scheme* (EPA, 1999).

C32 Importation of fill

All fill imported on to the site must be validated to ensure it is suitable for the proposed land use from a contamination perspective. Imported fill must 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 development application for the site. Hence all fill imported onto the site must be validated by either one or both of the following methods during remediation works:

- i. Imported fill must be accompanied by documentation to certify 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
- ii. Sampling and analysis of the fill material must be conducted in accordance with the relevant guidelines.

Sampling Design Guidelines (EPA, 1995) must be followed to ensure that the material is not contaminated.

C33 Site signage and contact numbers

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

C34 Community consultation

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

C35 Site security

The site must be secured to ensure against unauthorised access by appropriate fencing.

C36 Occupational health and safety

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

C37 Removal of underground storage tanks

The removal of underground storage tanks (UST) must be undertaken in accordance with any applicable guidelines and WorkCover requirements which include writing to the Chief Inspector of Dangerous Goods and complying with any conditions imposed.



UST removal must 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 WorkCover requirements, the latter shall prevail.

- C38** Tree preservation
Remediation work must 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's approval.
- C39** Heritage items
Remediation work must not be undertaken on land containing a heritage item where the consent of Council is required.