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## 1. BACKGROUND

This Policy forms the basis for the management of land contamination within the Ku-ring-gai local government area and implements State legislative requirements.

The general aim of the *Contaminated Land Management Act 1997* (CLM Act) is to establish a process for investigating and (where appropriate) remediating contaminated land. The Act sets out accountabilities for managing contamination, including Ku-ring-gai Council's own accountability for management of affected lands.

A package of reforms has been developed to complement the CLM Act, including *State Environmental Planning Policy No 55 – Remediation of Land* (SEPP55) and the *Managing Land Contamination: Planning Guidelines (the Planning Guidelines)* published by the Department of Urban Affairs and Planning & NSW Environment Protection Authority.

The planning and development control process as provided for in the *Environmental Planning and Assessment Act 1979* (EP&A Act) also plays an important role in the management of land contamination. You will notice several references to it in the Policy.

### 1.1 What is the Aim of this Policy?

This Policy applies to all land in the Ku-ring-gai local government area. In accordance with the *Planning Guidelines*, this Policy provides the framework for the integration of land contamination management into the planning and development process, and aims to:

- ensure that changes of land use will not increase the risk to health or the environment;
- avoid inappropriate restrictions on land use; and
- provide information to support decision making and to inform the community.

In most cases Ku-ring-gai Council will deal with contaminated sites under the provisions of this Policy, however, if it is found or suspected that land contamination poses a significant risk of harm to public health or the environment then the NSW Environment Protection Authority (EPA) must be notified. The EPA can make declarations to order investigations or remediation of land (Section 7 of the *Contaminated Land Management Act 1997*).

**Please Note:** “Although the former Environment Protection Authority is now a part of the NSW Department of Environment and Conservation, certain statutory functions and powers continue to be exercised in the name of the Environment Protection Authority (EPA)”

### 1.2 What does “Land” mean under this Policy?

One aspect of contaminated land management under this Policy differs significantly to the *Planning Guidelines*. This has arisen through a difference between the definitions of “land” in the EP&A Act and in the CLM Act.

Council has previously investigated this matter with the (then) NSW Environment Protection Authority (now part of the NSW Department of Environment & Conservation or “DEC”) and the (then) Department of Urban Affairs and Planning (now known as the Department of Infrastructure Planning and Natural Resources or “DIPNR”). The former Department of Urban Affairs and Planning advised at that time, that the definition of land, for the purposes of both SEPP55 and Part 5 of the EP&A Act, includes buildings. The Department also advised that Section 149 certificates were the appropriate place to notify interested parties about the affect of Council’s policy on contaminated land/buildings.

Because of the well-established nature of development within Ku-ring-gai, this is likely to classify many buildings as “potentially contaminated land”. Therefore, to avoid undue burden on property owners who may have lead paint in buildings on their property, but are unlikely to have contaminated soil, Council uses standard conditions of development consent which include provisions for managing hazardous materials (like lead paint and asbestos) appropriately.

Council may decide that the contamination investigation process outlined in this Policy may not be necessary for that property in cases where Council finds, after initial investigation of a property, that the only contamination issue is lead paint or asbestos in a building, and where it is also satisfied that these materials will be managed through the standard conditions of development consent.

## 2. COUNCIL'S DECISION MAKING PROCESS

In determining all rezoning and development applications, Council must consider the possibility of former land contaminating activities and the implications that these activities may have for any proposed or permissible future use of the land. A precautionary approach will be adopted to ensure that land contamination issues are identified and dealt with early in the planning process. This Chapter outlines how Council evaluates whether contamination may be an issue, and also the decision making process for carrying out Council's planning functions (eg rezoning of land, development consent etc).

It is worthwhile noting at this point that all contamination investigations must be carried out by a suitably qualified and experienced consultant and are carried out at the applicant/proponent's expense. Development consent or approval will not be given until Council is satisfied that the land is suitable for its proposed use. At any time during the decision making process, Council can request that a contaminated site auditor who has been formally accredited by the EPA is contracted to carry out an independent review of the investigation or any remedial work. Chapter 4 of this Policy explains the circumstances under which Council would require a site audit and what is involved in a site audit.

### 2.1 Council's Procedure for Considering Land Contamination Issues for Rezoning Applications.

- SEPP 55 requires Council to consider contamination issues in rezoning applications (including when Council is the proponent of the rezoning). Section 2.1.1 to 2.1.4 describe Council's procedure for considering land contamination issues for rezoning applications and the procedure is summarised in Figure 1.

In considering a rezoning application, Council must consider whether the land is or might be contaminated, and;

- if the land is contaminated, Council must be satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for all the purposes permissible in that zone, and;
- if the land require remediation to be made suitable for any purpose permissible in that zone, Council must be satisfied that the land will be remediated before the land is used for that purpose. (eg provisions in a Local Environmental Plan (LEP) or Development Control Plan (DCP) address contaminated at the Development Application stage).

When Council receives a rezoning application that covers more than one property or when Council itself proposes generalised rezoning, it may be difficult for council to be satisfied that every part of the land is suitable for the permissible use(s) at the rezoning stage. Council may include provisions in a 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.

### 2.1.1 Initial Evaluation by Council

All rezoning applications are required to include a statement as to whether the site is likely to be contaminated. Council will conduct an initial evaluation as part of the assessment process for a rezoning application to determine whether contamination is an issue, and whether sufficient information is available for Council to make the decision in good faith.

The initial evaluation will be based on readily available factual information provided by the applicant and other information available to Council (eg previous contamination investigations, previous zoning and uses of the subject land, restrictions relating to possible contamination such as notices issued by the EPA. For that purpose, the contamination may be within a structure/building or other structure on the land, rather than only within the soil of that land.

If council is satisfied that the initial evaluation concludes that contamination is not an issue, then Council may not require any further investigations to be conducted, however Council will require further investigation to be conducted and results submitted with rezoning applications where it is found through the initial evaluation that the land concerned is:

- land that is within an investigation area which has been notified as such by the NSW EPA;
- land on which an activity referred to in Appendix 1 is being, or is known to have been, carried out; or
- proposed for development involving residential, educational, recreational, child care or hospital purposes and there is incomplete knowledge about whether an activity referred to in Appendix 1 is being, or is known to have been, carried out.

Council may also require further investigation to be submitted if Council has reasonable grounds to believe that the land may be contaminated because of the land's history, condition, or other information known or provided to Council.

Section 2.1.2 and 2.1.3 outline the process for further investigation.

### 2.1.2 Preliminary Site Contamination Investigation (Stage 1).

The objectives of a preliminary investigation are to identify any past or present potentially contaminating activities and to provide a preliminary assessment of site contamination. The preliminary investigation typically contains a detailed appraisal of the site history and a report based on visual site inspection and assessment.

The preliminary site contamination investigation shall be carried out in accordance with the requirements of the NSW EPA *Guidelines for Consultants Reports on Contaminated Sites*. The applicant is responsible for engaging a suitably qualified and experienced consultant to undertake the preliminary site contamination investigation and is responsible for all costs borne in engaging the consultant.

If required for the investigation, applicants may request Council to perform a search of its records to determine previous approved developments at the site (see Chapter 5).

If Council is satisfied that contamination is not an issue, then Council may not require any further investigations to be conducted.

If the results of the preliminary investigation demonstrate the potential for, or existence of, contamination which may preclude the land from being suitable for the proposed zone, Council may require a detailed contamination investigation (See Section 2.1.3).

### **2.1.3 Detailed Site Contamination Investigation (Stage 2)**

Council will require a detailed site contamination investigation to be undertaken when the result of the preliminary investigation demonstrate the potential for, or existence of, contamination, which may preclude the land from being suitable for the proposed zoning. In some cases Stage 1 and Stage 2 investigations may be combined where the land is known to be contaminated or where the site history is clear.

Council may not require a detail investigation at the rezoning stage, if, after considering the findings of a preliminary investigation, Council includes provisions in a LEP or DCP (see Section 2.1.4).

The objectives of a detailed site investigation are to:

- define the extent and degree of contamination;
- assess the potential risk posed by contaminants to human health and the environment; and
- if necessary, obtain sufficient information for the development of a Remedial Action Plan (RAP).

The detailed site contamination investigation shall be carried out in accordance with guidelines made or approved by the Environment Protection Authority under Section 105 of the *Contaminated Land Management Act 1977* (guidelines are available on the EPA's website <http://www.environment.nsw.gov.au>). The proponent is responsible for engaging a suitably qualified and experienced consultant to undertake the detailed site contamination investigation. In addition, the proponent is responsible for all costs borne in engaging the consultant and site auditor (see Chapter 4).



The detailed site contamination investigation should be consistent with the requirements of the EPA's Guidelines for Consultant's Reporting on Contaminated Sites and should state whether the site is suitable for all purposes permissible in that zone or if it can be made suitable through remediation. If remediation is required, the report should also list the feasible remediation options available to remediate the site in order to make it suitable for any purpose permissible in that zone. If a feasible option is available, the rezoning can proceed with certain provisions. (see Section 2.1.4).

If the detailed site contamination investigation shows that the site is contaminated such that it cannot be remediated, Council may not allow the rezoning to proceed.

The CLM Act places a duty on the owner and the polluter of contaminated land that presents a "significant risk of harm" to public health or the environment to report that contamination to the EPA.

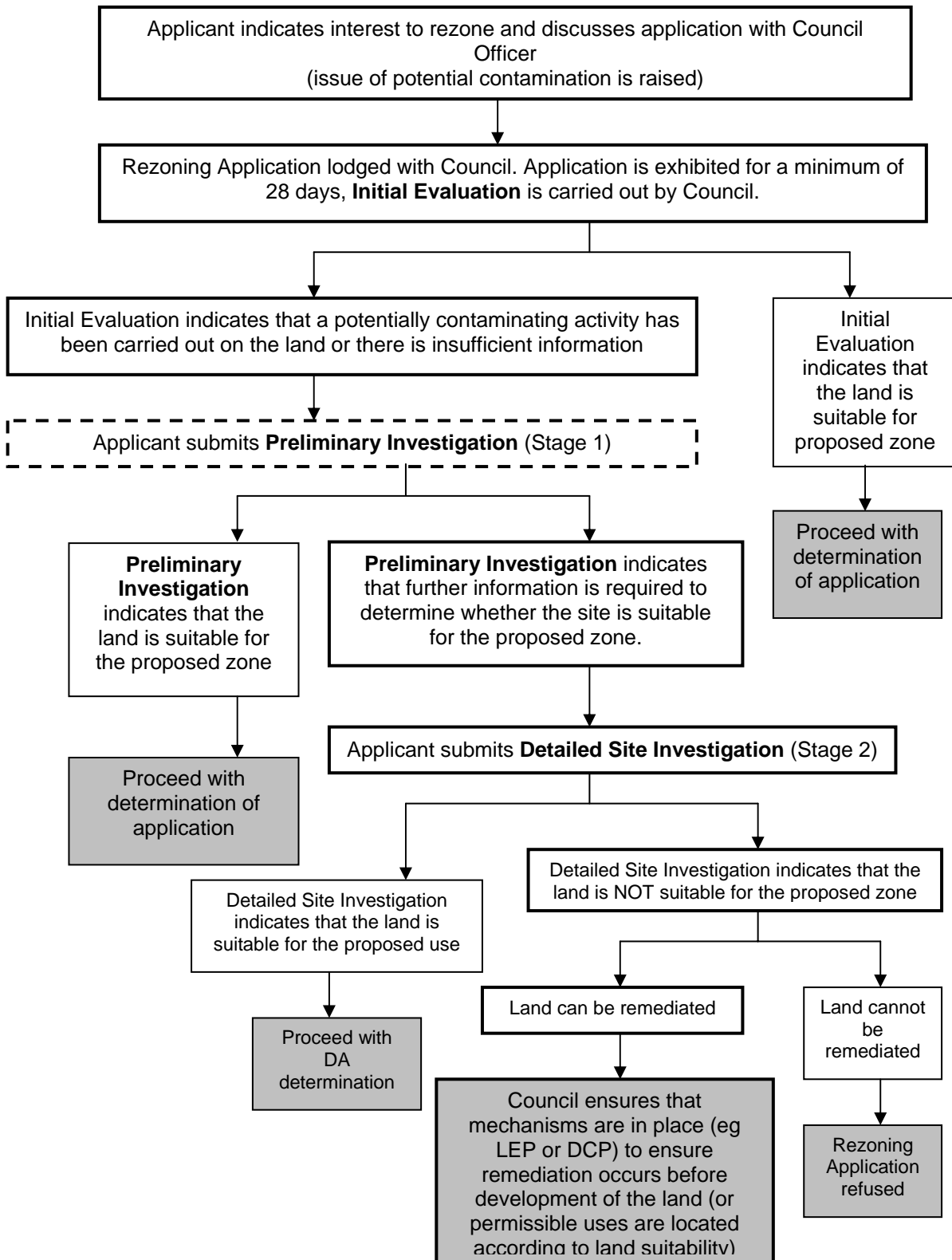
#### **2.1.4 Provisions in a LEP or DCP**

If site contamination investigations show that the site is contaminated, but that remediation is feasible, Council may include provisions in a Local Environmental Plan or Development Control Plan to ensure that remediation is addressed prior to the redevelopment of the land. Section 2.2.4 and 2.25 outline the process for remediation and validation prior to development.

For generalised rezonings of more than one property, Council may decide to only consider the findings of a preliminary investigation and, if contamination is an issue, include provisions in a LEP or DCP to ensure that a detailed investigation is carried out prior to redevelopment.

The rezoning can proceed as usual once these provisions are in place.

**Figure 1 Council’s Procedure for Considering Land Contamination Issues for Rezoning Applications**



*NB: Council may require an independent review by an EPA accredited auditor at any or all stages of the site investigation process.*

## **2.2 Council Procedures for Considering Land Contamination Issues for Development Applications (including Subdivisions)**

The *Environmental Planning and Assessment Act 1979* requires Council to consider “the suitability of the site for the development” when assessing development applications (DAs). The risk from contamination to health and the environment is included in this assessment.

Council will not grant consent to the carrying out of any development on land unless Council has first considered whether the land is contaminated, and;

- if the land is contaminated, Council is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose of the proposed development, 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.

Council’s procedure for considering land contamination issues for development applications is summarised in Figure 2 and outlined in Section 2.2.1 to 2.2.5.

### **2.2.1 Initial Evaluation by Council**

Council will conduct an initial evaluation as part of the assessment process for any planning activities to determine whether contamination is an issue, and whether sufficient information is available for Council to carry out its planning functions in good faith.

The initial evaluation will be based on readily available, factual information provided by the applicant and other information available to Council (eg previous contamination investigations, previous zoning and uses of the subject land, and restrictions relating to possible contamination such as notices issued by the EPA). For that purpose, the contamination may be within a structure/building or other structure on the land, rather than only within the soil of that land.

If Council is satisfied that the site is suitable for the proposed development in terms of land contamination, then Council may not require any further investigations to be conducted and the development application can proceed through Council’s usual processes.

Council will require further investigation, however, where it is found through the initial evaluation that the land concerned is:

- land that is within an investigation area which has been notified as such by the EPA;
- land on which activities referred to in Appendix 1 are being, or are known to have been, carried out; or

- land on which there is incomplete knowledge about whether activities referred to in Appendix 1 are being, or are known to have been carried out, and if the proposed development involves residential, educational, recreational, child care or hospital purposes.

Council may also require further investigation when:

- Council has reasonable grounds to believe that the land is contaminated because of the land's history, condition, or other information known to Council (where this is available);
- The site has been investigated or remediated but there is insufficient information available about the nature and extent of contamination or remediation, or where these circumstances have changed:
- There are restrictions on, or conditions attached to, the use of the site by a regulatory or planning authority that are, or may be, related to contamination, but there is insufficient information available about the nature and extent of contamination;
- Council records have demonstrated that the site is associated with pollution incidents or illegal dumping of wastes; or
- The site is adjoining land that has been associated with activities that may cause contamination listed in Appendix 1 and it is likely that this may have contaminated the subject premises.

Council will notify the applicant or proponent in writing if further investigations are required. Section 2.2.2 and 2.2.3 outline the process for further investigation.

### **2.2.2 Preliminary Site contamination Investigation (Stage 1)**

Council will require a preliminary investigation from an applicant or proponent if the results of the initial evaluation (see Section 2.2.1) carried out by Council suggest that contamination may be an issue.

The objectives of a preliminary investigation are to identify any past or present potentially contaminating activities and to provide a preliminary assessment of site contamination. The preliminary investigation typically contains a detailed appraisal of the site history and a report based on visual site inspection and assessment.

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

Applicants may request Council to perform a search of its records to determine previous approved development at the site (see Chapter 5).

If council is satisfied that the site is suitable for the proposed use, then Council may not require any further contamination investigations to be conducted and the development application can proceed through Council's usual procedures.

If the results of the preliminary investigation demonstrate the potential for, or existence of, contamination which may preclude the land from being suitable for the proposed use, Council may require a detailed site contamination investigation (see Section 2.2.3).

### **2.2.3 Detailed Site Contamination Investigation (Stage 2)**

Council will require a detailed site contamination investigation to be undertaken when the results of the preliminary investigation (see Section 2.2.2) demonstrate the potential for, or existence of, contamination, which may preclude the land from being suitable for the proposed use. In some cases Stage 1 and Stage 2 investigations may be combined where the land is known to be contaminated.

The objectives of a detailed site contamination investigation (Stage 2) are to:

- define the extent and degree of contamination;
- assess the potential risk posed by contaminants to human health and environment; and
- if necessary, obtain sufficient information for the development of a Remedial Action Plan (RAP).

The detailed site contamination investigation shall be carried out in accordance with the requirements of the EPA *Guidelines for Consultants Reports on Contaminated Sites*. The proponent is responsible for engaging a suitably qualified and experienced consultant to undertake the detailed site contamination investigation. In addition, the proponent is responsible for all costs borne in engaging the consultant.

The detailed site contamination investigation shall state whether the site is suitable for the proposed use and for all other purposes permissible in the zone, or if remediation is necessary. If remediation is required, the report should also list the feasible remediation options available to remediate the site in order to make it suitable for the proposed use.

If Council is satisfied that the site is suitable for the proposed use, then Council may not require any further investigations to be conducted and the development application can proceed through Council's usual procedures.

If the results of the detailed site contamination investigation demonstrate the existence of contamination which may preclude the land from being suitable for the proposed use, the proponent may choose to either withdraw the DA or to remediate the land. If the latter is chosen, Council will require a Remedial Action Plan (see Section 2.2.4).

The CLM Act places a duty on the owner and the polluter of contaminated land that presents a “significant risk of harm” to public health or the environment to report that contamination to the EPA.

#### **2.2.4 Remedial Action Plan (RAP) (Stage 3)**

If a property owner decides to carry out remediation, Council will require the submission of a Remedial Action Plan developed by a suitably qualified and experienced consultant. Prior to determining the subdivision or development application, Council must be satisfied that remedial measures have been, or will be undertaken in accordance with the submitted RAP, to make the site suitable for the proposed use.

The objectives of a remedial act plan (RAP) are to:

- set remediation objectives:
- determine the most appropriate remedial strategy; and
- identify necessary approvals that need to be obtained from regulatory authorities (eg: EPA, Department of Infrastructure Planning and Natural Resources (DIPNR, formerly the Department of Land and Water Conservation), NSW Fisheries, the Roads and Traffic Authority, etc).

Section 3.2 details what should be included in a remedial action plan (RAP).

#### **2.2.5 Validation and Monitoring Report (Stage 4)**

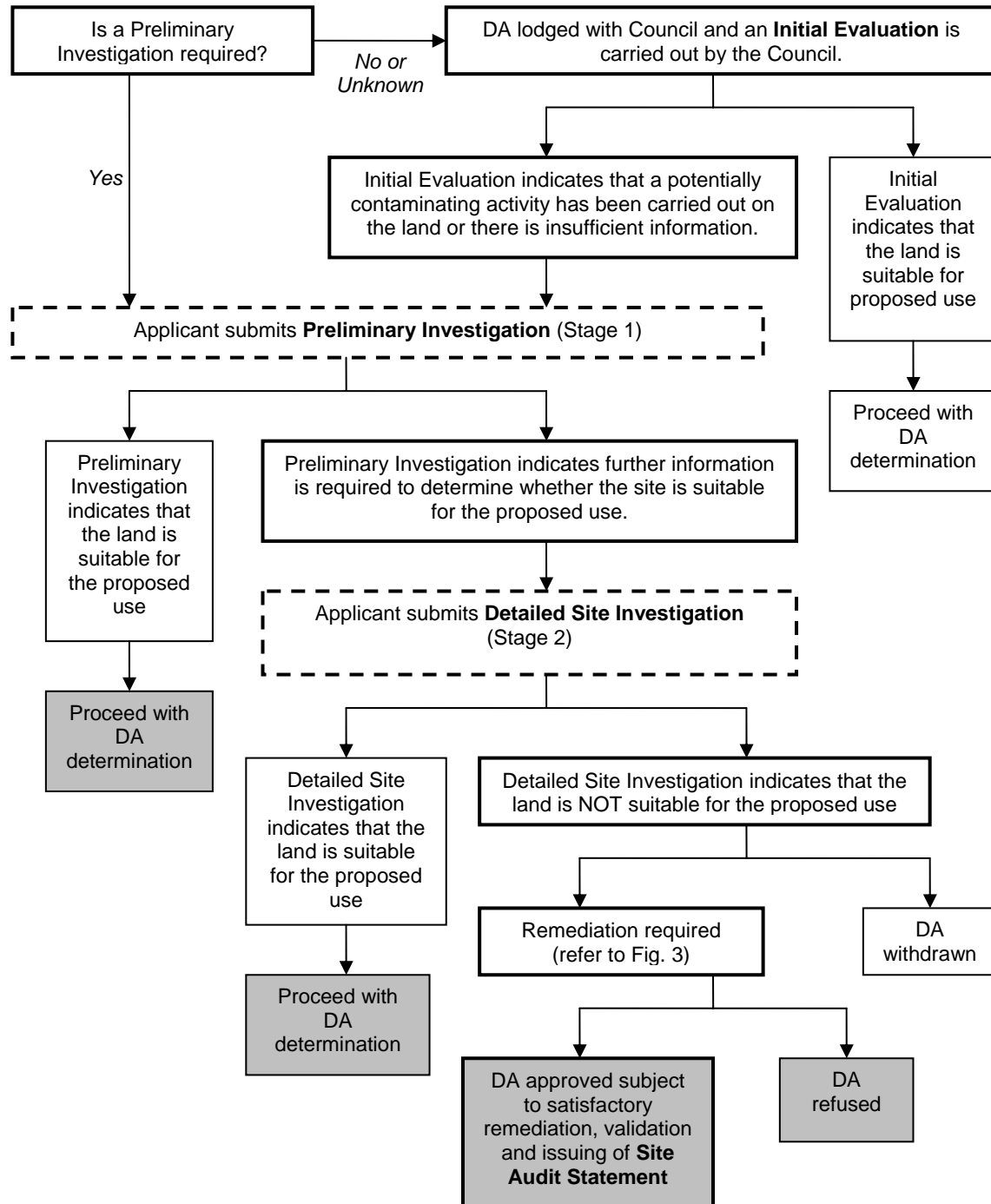
The objective of the validation and monitoring report is to demonstrate that the objectives stated in the RAP have been achieved and that any conditions of development consent in regard to contaminated land have been complied with.

Council will require a validation and monitoring report to be submitted by the applicant after remediation works have been completed, and prior to the commencement of building construction works. This will normally be achieved by Council planning a condition on any consent granted requiring the submission of a validation and monitoring report prior to the issuing of a construction certificate. Alternatively, Council may issue a deferred commencement or a staged consent for the proposed use, requiring that remediation and validation is undertaken prior to other work commencing.

Ideally, the same consultant that conducted the site investigation and remediation process should conduct validation. Validation must confirm statistically that the remediated site complies with the clean-up criteria set for the site.

Council may require independent review of the remediation and validation by an EPA accredited auditor (see Chapter 4).

**Figure 2 Council's Procedure for Considering Land Contamination Issues for Development Applications**



NB: Council may require a site audit by an EPA accredited auditor at any or all stages of the site investigation process.

### 2.3 Remediation Proposals not in Association with a Rezoning or Development Application

Owners of land which has been identified as, or is suspected of being contaminated may wish to voluntarily carry out investigation or remediation at any time, regardless of whether they intend to carry out development, or apply for rezoning of that land.

Investigation must be carried out in accordance with the relevant EPA guidelines by a suitably qualified and experienced consultant. Remediation must be carried out according to relevant State legislation and the process outlined in Chapter 3 of this Policy.

Council will consider the results of any investigations or remediation carried out when deciding what information to provide on the planning certificate for a property (see Chapter 5).

**It should be noted that there is a duty on polluters and owners of land, who become aware that land is contaminated in such a way as to present a “significant risk of harm” (to human health, or to the environment) under Section 60 of the *Contaminated Land Management Act 1997* to notify the Environment Protection Authority, in writing and as soon as practicable.** Any such person is also advised to refer to the relevant section of the Act, and/or the Environment Protection Authority for further information.

### 2.4 Agricultural and Horticultural Land in Ku-ring-gai

Prior to urban settlement, many areas of Ku-ring-gai were used for agricultural and horticultural purposes. These activities are listed in Appendix 1 as activities that may cause contamination. Council was unable to identify these areas accurately in the readily available records that were reviewed during the development of this Policy.

The EPA guidelines do not provide any guidance on the duration of time since the activity ceased and the requirement for investigation of contamination. However the EPA have advised that arsenic-based pesticides were applied to intensive agriculture such as orchards and market gardens more than 50 years ago. Land where these uses occurred may have elevated levels of arsenic, lead, copper and zinc.

An EPA discussion paper, the “*Draft Guidelines for Assessing Former Orchards and Market Gardens*”, provides some guidance on more recently redeveloped orchards and market gardens. According to the discussion paper, chemicals of concern in these areas include organochlorine (OCs) and organophosphate (OPs). The use of the residual organochlorine pesticides such as dieldrin, heptachlor and DDT, gradually diminished in the early 1980s and from 1986/87 have either been restricted or prohibited from agricultural use. The predicted persistence of these compounds are 5 to 15 years.



The EPA have suggested the following approach to historical agricultural lands in Ku-ring-gai. Where an initial evaluation by a Council officer assessing a development application or rezoning proposal identifies that the land was previously used for agricultural or horticultural purposes, the Council officer may request a preliminary investigation (see Section 2.1.2 and 2.2.2 respectively) to be carried out to determine the history of the property.

If the preliminary investigation shows that the land was only used for broadacre agricultural purposes then the application may proceed. Although it is still likely that pesticides were used for broadacre-type farming the likelihood of elevated levels of residual pesticides remaining in the soil would be lower. However, if investigations show that the land was used as an intensive orchard or market then a further investigation (ie sampling) may be required.

Further investigation may take the form of a detailed investigation such as that described in the EPA *Guidelines for Consultants Reporting on Contaminated Site*. However the abovementioned EPA discussion paper on *Assessment of Orchard and Market Garden Contamination* details a less-intensive sampling regime for these types of properties. Applicants should also be referred to these guidelines where relevant.

### 3. COUNCIL'S REQUIREMENTS FOR REMEDIATION

#### 3.1 Is Consent Required for Remediation?

SEPP 55 attempts to facilitate remediation of contaminated land by only requiring development consent for remediation under certain conditions. If remediation falls under these conditions it is defined as Category 1 remediation work, and requires consent. All other remediation is classified as Category 2 and does not require separate development consent. This section defines Category 1 and Category 2 remediation work.

All remediation must be carried out by a suitably qualified and experienced consultant in conjunction with a Remedial Action Plan. Council's procedure for considering site remediation proposals is shown in Figure 3.

#### Category 1 Remediation Work

SEPP 55 defines Category 1 remediation work as remediation work that is:

- a) designated development, or
- b) carried out or to be carried out on land declared to be a critical habitat, or
- c) likely to have a significant effect on a critical habitat or a threatened species, population or ecological community, or
- d) development for which another State Environmental Planning Policy or a Regional Environmental Plan requires development consent, or
- e) carried out or to be carried out in an area or zone to which any classifications to the following effect apply under an environmental planning instrument:
  - i) coastal protection;
  - ii) conservation or heritage conservation;
  - iii) habitat area, habitat protection area, habitat or wildlife corridor;
  - iv) environment protection;
  - v) escarpment, escarpment protection or escarpment preservation;
  - vi) floodway;
  - vii) littoral rainforest;
  - viii) nature reserve;
  - ix) scenic area or scenic protection;
  - x) wetland; or
  - xi) carried out or to be carried out on any land in a manner that does not comply with a policy made under the contaminated land planning guidelines by the council for any local government area in which the land is situated (or if the land is within the unincorporated area, the Western Lands Commissioner).

Category 1 remediation requires consent and is deemed to be “advertised development” unless the remediation work is designated development or State significant development. All Category 1 remediation work must be advertised for 30 days pursuant to s.29A of the *Environmental Planning and Assessment Act 1979*.

If, for a proposed development, remedial works are required and constitute Category 1 remediation work, the applicant may either amend their current application to include a remediation proposal (if applicable) or lodge a new and separate development application for the remediation works.

## **Category 2 Remediation Work**

Category 2 remediation work is all remediation work that is not Category 1 remediation work (see Section 3.1.1). Category 2 remediation work does not require development consent. Part 5 of the *Environmental Planning & Assessment Act 1979* applies where development consent is not required under a planning instrument but where an approval from a public authority is required (eg Council, NSW Department of Environment & Conservation (incorporating the National Parks and Wildlife Service), Department of Infrastructure Planning and Natural Resources, NSW Fisheries, NSW Roads and Traffic Authority, etc.).

Each determining authority will consider the potential significance of any environmental impacts from the proposed remediation. If any of the determining authorities consider that the proposed remediation is likely to significantly affect the environment, an Environmental Impact Statement (EIS) would be required. If consent is not required for remediation under the SEPP. It is unlikely that the remediation will significantly affect the environment and therefore an EIS will probably not be necessary. However, this is a decision that must be made on a case by case basis. If each determining authority decides an EIS is not required, then a ‘Review of Environmental Factors’ must be prepared. (Council’s Planning Officers can assist with further information about the Part 5 environmental assessment process).

Council must be notified at least 30 days before commencement of Category 2 remediation works. Prior notice of Category 2 remediation works must:

- a) be in writing;
- b) provide name, address and telephone number of the person who has the duty of ensuring that the notice is given;
- c) briefly describe the remediation work;
- d) show why the person considers that the work is Category 2 remediation work (refer to clause 9, 14 and (if it applies) 15(1) of SEPP 55);
- e) specify, by reference to its property description and street address (if any), the land on which the work is to be carried out;
- f) provide a map of the location ; and

g) provide estimates of the dates for the commencement and completion of the work.

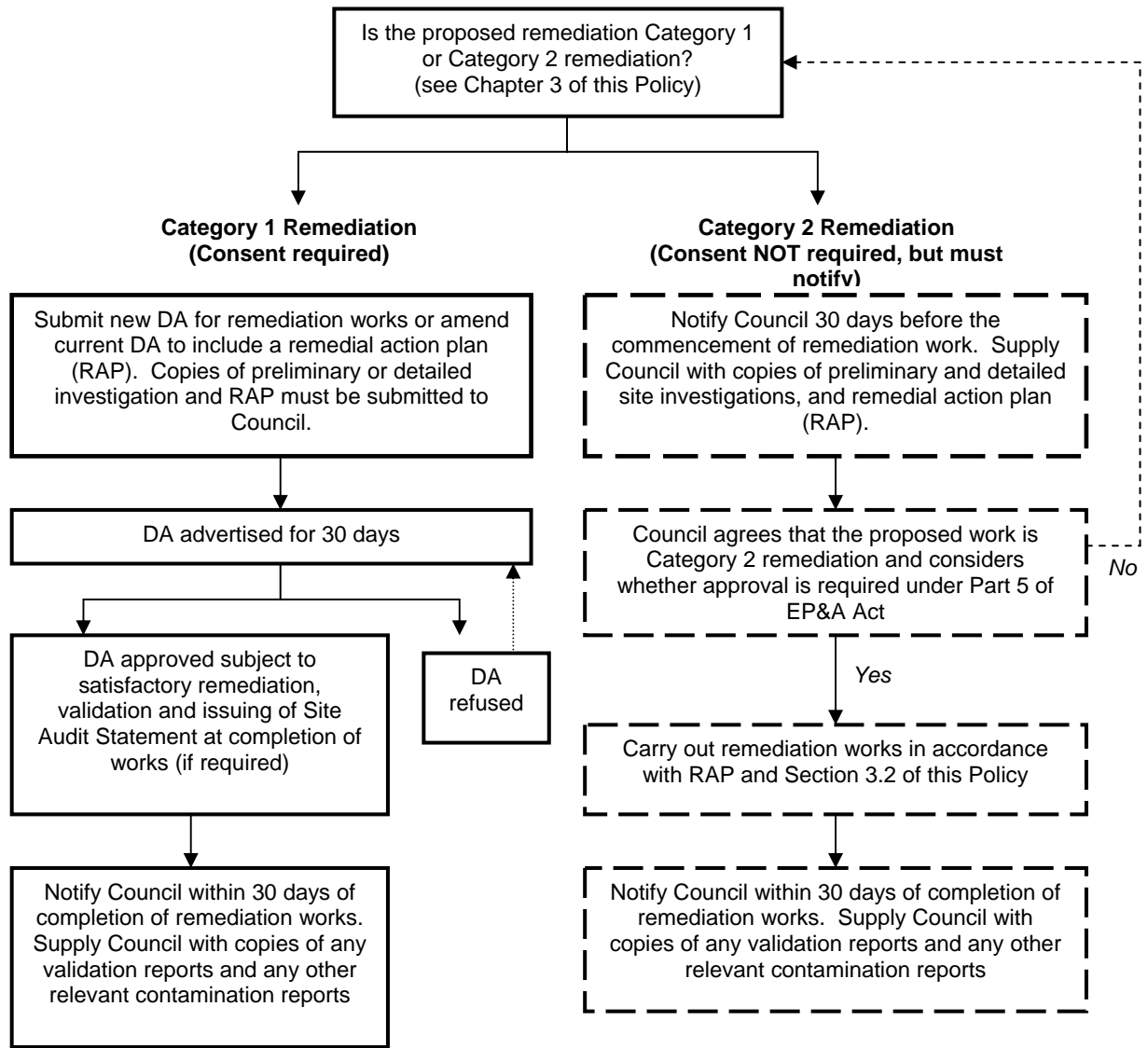
The following information must be submitted with the notification of works:

- A copy of any contamination investigation reports and Remedial Action Plan for the subject site.
- Contact details for the remediation contractor and party responsible for ensuring compliance of remediation work with all relevant regulatory requirements (if different to remediation contractor).

The notification and accompanying documents should be addressed to Council's Manager Development Control.

A copy of the Validation and Monitoring Report and Site Audit Statement from an EPA accredited auditor (where one has been issued) must be forwarded to Council within 30 days of the completion of remediation works. Council will not consider any subsequent development applications for the site until it is satisfied that the site is suitable for the proposed use.

**Figure 3 Council’s Procedure for Considering Site Remediation Proposals**



*NB: Council may require an independent review by an EPA accredited auditor at any or all stages of the site investigation and remediation process.*

### 3.2 What Should be Included in a Remedial Action Plan?

As outlined in the previous sections, Category 1 remediation work requires a development application that includes the proposed remediation works. Category 2 remediation does not require consent, however a Remedial Action Plan must be submitted to Council 30 days before commencement of works. The Remedial Action Plan should be prepared and carried out by a suitably qualified and experienced consultant. It should incorporate an Environmental Management Plan (which is to be consistent with the EPA's *Guidelines for Consultants Reporting on Contaminated Sites*) and an occupational health and safety plan. If the remediation work is to be carried out by a subcontractor then the remedial action plan should incorporate the basic objectives, however the related plan may be developed by the subcontractor once contracted.

All remediation reports shall clearly conclude that, in the opinion of the author and based upon the evidence presented in the report, that the remediation activities recommended within the report will result in the site being rendered suitable for its intended use.

This section outlines the issues and provisions that should be addressed in the plan. These provisions have been formulated to ensure that remediation work does not adversely impact on the environment or public amenity. All remediation work must be consistent with the *Managing Land Contaminated Planning Guidelines* and be carried out in accordance with EPA guidelines made under the CLM Act.

Remediation work that does not comply with the requirements 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 potential non-compliance with this section and identify alternative site management measures to be implemented.

**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 (or as amended by legislation).

#### 3.2.1 Hours of Operation

All remediation work shall be conducted within the following hours:

Monday – Friday	7am – 5.30pm
Saturday	8am – 12.00 noon
Sundays and Public Holidays	No work is permitted

### 3.2.2 Soil and Water Management

All remediation works shall be conducted in accordance with Council's (Water Management Development Control Plan (DCP 47). If any water is to be released to the stormwater system, techniques from "*Managing Urban Stormwater – Soils and Construction*" (New South Wales Department of Housing, 1998) should also be employed during dewatering activities.

A copy of the Soil and Water Management Plan or the Erosion and Sediment Control Plan (which may be incorporated into the RAP) shall be kept on-site and made available to Council officers on request. All erosion and sediment measures must be in place **prior** to the commencement of works and must also be **maintained** in a functional condition throughout the duration of all remediation works.

#### *Site Drainage*

It is an offence under the *Protection of the Environment Operations Act 1997* to cause water pollution. Water that runs over or leaches through contaminated soil may dissolve heavy metals or other contaminants, thereby contaminating the water. Where practicable, clean runoff should be diverted around the remediation site to minimise the volume of water requiring management. Monitoring should be undertaken to ensure that water leaving the site via the stormwater system or runoff is within any EPA legislative requirements and ANZECC standards for water quality.

All runoff and leachate from within a contaminated site must be captured in sediment basins and may be treated on site prior to disposal of clean supernatants and/or removed by a liquid waste transporter for treatment/disposal to an appropriate waste treatment/processing facility according to the EPA *Environmental Guidelines: Assessment, Classification and Management of Liquid or Non-Liquid Wastes*.

#### *Erosion & Sediment control and the Establishment of Stockpiles*

- Excavation of the site shall not commence until such time as all necessary approvals have been obtained;
- Any site materials cleared that are not contaminated (topsoil or other spoil, including subsoils, sands, vegetation, rock, etc), shall be stockpiled for re-use on-site (for example, to landscape the site) or to be otherwise re-used or recycled. Such stockpiles shall:
  - be located at least two metres from any hazard area (including surfaces with grades greater than 15 per cent, zones of concentrated stormwater flow, driveways and/or temporary vehicular access ways, footpaths, nature strips, kerblines gutters, open swales and the drip zones of trees);
  - have sediment fencing installed on all downslopes; and

- be covered with geofabric or tarpaulin that is held down firmly at all corners and sides or otherwise located and protected in a position where erosion of stockpiled materials will not occur.

- All vegetation not in the immediate works area shall be retained.

**Note:** Vegetation is a very effective barrier against erosion, helping to absorb the impact of rain on the land, reducing the volume and rate of stormwater runoff, binding the soil with roots and protecting the soil from wind erosion.

- Waste (including skip bins), stockpiles of soil, construction materials, equipment or sediment barriers shall at no time be placed in public walkways, verges, Council roads or road reserves unless a permit has been obtained from Council and the prescribed fee has been paid to Council. Materials shall only be stored if subject to public liability insurance cover to the order of \$20 million.

**Note:** Under the *Roads General Regulation 2000*, significant fines apply to the placing on the road (including footpath) of any thing likely to restrict or endanger road use.

- Erosion and sediment control barriers shall:
  - Be in place prior to the commencement of any earth works at the site;
  - Where possible, be located within property boundaries;
  - Not consist of hay or straw bales unless wrapped completely in geotextile fabric and if used on a soft surface, are dug into the ground a minimum of 75 mm;
  - In the case of silt fences:
    - ◆ be installed such that stormwater flows are directed through them;
    - ◆ have the bottom edge buried at least 150mm into the soil and pegged tightly; and
    - ◆ be material specifically designed for sediment control;
  - be erected and maintained around drainage inlets such that sediment is prevented from entering the waterways;
  - be checked at least daily as well as immediately after storm events and shall be repaired or replaced such that barriers at the site are fully functional at all times;
  - be emptied when not more than 40% capacity has been reached; and
  - not be removed until such time as all permanent landscaping has been completed.



**Note:** Failure to effectively maintain sediment and erosion control devices may result in the responsible individual or corporation receiving an on-the-spot fine, clean-up notice or court action under the *Protection of the Environment Operations Act 1997*.

- At large excavation sites, all care shall be taken to ensure that stormwater is directed away from the excavation area at all times. However, in the event that the excavation site fills with water, water shall be removed in a manner that does not increase erosion, sedimentation, pollution of drainage systems (whether natural or not) or contamination of other soils or waterways.

**Note:** Water may **not** be pumped directly across disturbed soil, especially any areas of contaminated soil.

- Sediment removed from any trapping device shall be disposed of or relocated so as to prevent further erosion and pollution of waterways or other lands. Disposal/relocation of all sediments shall comply with all relevant legislation, including the *Contaminated Land Management Act 1997*.
- Any sediment spilled within the property or onto roadways shall be collected and removed with a spade and dry broom (without water) and disposed of so as to prevent further erosion and pollution of waterways. Spilled sediment should never be washed or swept into a watercourse or inlet to a stormwater system.
- Whenever there is potential for dust movement (and especially during periods of dry weather), a light spray of water shall be applied to the site at regular intervals to minimize the airborne transfer of sediment, however water shall not be applied in such a way as to create run-off. All stockpiles of soil or other materials which are likely to generate dust or odours shall be covered and/or kept moist (also see below under *Dust Control* for possible further requirements).
- A single stabilised vehicular access point be established prior to the commencement of any works, wherever works proposed will involve the entry and exit of vehicles to and from the site. The access way must connect to either the kerb and gutter or the dish crossing (if neither exists, one or the other, as appropriate, must be constructed).
- A shaker pad must be established as part of the vehicular access way, and shall be:
  - Established on suitably prepared and compacted material;
  - Constructed flush with the adjoining surfaces;
  - A minimum of 10 metres in length;
  - Designed with rungs spaced 200 -250mm apart and with a maximum width of 75mm each;

- 300mm clear of the finished sub-grade or base level below; and
- Maintained to all the above listed standards.
- Fencing shall be used to confine the passage of vehicles to the single stabilised entrance and any internal road.
- Runoff from access surfaces shall drain to an adjacent sediment-trapping device on the subject site.

**Note:** On larger sites, Council may require the establishment of a stabilized construction road in conjunction with the access way in order to define movement across or through the site.

- Vehicle loads of waste and construction material must be covered during transportation and must comply with the *Protection of the Environment Operations Act 1997* and the *Road Transport Act (NSW) 1999*.
- The stormwater disposal system shall be installed at the earliest stage possible.
- All stockpiles of contaminated soil shall be stored in a secure area and be covered and bunded if remaining more than 24 hours and earlier during wet or windy weather or if located on steep slopes (also see below under *Dust Control* for possible further requirements).
- Uncontaminated topsoils shall not be stockpiled at the site for any period greater than two weeks.
- Landscaping works or temporary stabilization with geotextile fabric shall be implemented at the earliest possible stage to ensure stabilisation of the soil.

#### *Site Access*

Vehicle access to the site shall be stabilized 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, shoveling, or a means other than washing, either on a daily basis or more frequently if required. These materials must not be washed into the stormwater system.

Soil washings from a designated washdown area shall be collected and disposed of in a manner that will neither pollute waters nor enter the stormwater system.

Council's requirements regarding the provision of vehicular access point(s), shaker pads and internal access road, the temporary storage of materials and wastes on public lands and the transportation of material and wastes are all described above, and/or within Council's Water Management Development Control Plan (DCP 47).

### *Groundwater*

If any groundwater is to be extracted, an approval and licence under the *Water Act 1912* (or the *Water Management Act 2000*, when fully implemented) will need to be obtained from the Department of Infrastructure, Planning and Natural Resources (DIPNR). All provisions of that licence shall be adhered to.

Groundwater shall also 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 any EPA legislative requirements and ANZECC standards for water quality.

Other options for the disposal of groundwater may include disposal of 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.

### **3.2.3 Landscaping/Rehabilitation**

A landscape plan should be submitted to Council as part of the Remedial Action Plan. The plan should include specifications including, but not limited to; final soil levels; fill; contours; topsoil; plantings etc.

If topsoil is removed it should be replaced to ensure that the site can be revegetated to protect against erosion and ensure that future garden planting on the site is successful. Any change in soil levels should not impact on existing trees. The drainage and topography of the site should not be significantly affected by remediation.

Council has in force a Tree Preservation Order, which requires Council's consent for the removal, lopping or damage of any tree covered by the Order. The landscape plan should include a plan (scale 1:200) showing the accurate location of all trees greater than three (3) metres in height on-site and on adjoining boundaries and nature strips. The plan should include the following:

- Location of trees in relation to proposed excavation;
- Species name;
- Trunk diameter 1.5 metres above existing ground level;
- Soil level at base of trunk;
- Height and spread of canopy;
- Identify those trees to be removed for remediation works.

Regular tree inspections by a qualified arborist before, during and after any site works will ensure the survival of the existing trees. Protective tree fencing such as 1800mm star pickets using four strands of wire as well as chain mesh should be erected around the dripline of all trees remaining on the site and be inspected prior to the commencement of any works.

No activities, storage or disposal of material should take place beneath the canopy of any tree in the tree protection zones.

Where retention of original vegetation is not possible, then all exposed areas shall be progressively stabilized and revegetated as soon as possible after the completion of remediation works.

Revegetation of a site can be either temporary or permanent, depending on the speed of stabilization required and the intended future use of the site, and it is also possible to make use of both techniques at the same time.

Vegetation stabilization, where utilized, shall be undertaken in accordance with the following controls:

- a) before undertaking any revegetation works, any pre-existing causes of degradation shall be addressed.
- b) erosion and sediment control measures must be retained in good working condition until such time as the site is properly stabilized.
- c) All landscaping on disturbed areas shall be carried out in accordance with the approved landscape plans. Vegetation stabilisation shall not preclude the carrying out of works in accordance with the landscape plan.
- d) Non-indigenous plant species used for temporary vegetative stabilization shall be non-invasive and shall be of a form that will not deter the establishment of indigenous species.

**Note:** Temporary vegetation is generally undertaken using annual species as they tend to grow faster, however annual species are not appropriate for permanent vegetative stabilisation as they commonly cease to provide stabilization after 6 – 8 months.

- e) Revegetation undertaken in riparian zones shall be permanent revegetation only utilizing locally native vegetation species.

**Note:** Any development that includes an ‘activity’ being undertaken within 40 metres of the top of the bank or shore of ‘protected water’, with the exception of waters administered by the NSW Waterways Authority and in certain identified circumstances, is Integrated Development. Integrated Development requires consent from at least one public body other than Council. Contact Council prior to finalizing the location if the development or any works associated with that development are located within 40 metres of a waterbody.

- f) Plants used for permanent vegetation stabilisation shall consist of not less than 100% locally native tree species and 50% locally native understorey species. Any annual plant species used shall be native.
- g) Where permanent vegetative stabilisation is undertaken in bushland, the ground shall be further protected against erosion by the placement of mulch or a biodegradable blanket.
- h) If degradation has altered conditions such that revegetation to pre-development standards is not possible, rehabilitation must be designed to suit the changed conditions.
- i) All disturbed areas shall be rehabilitated (landscaped) within twenty (20) days of completion of remediation or building works, or provided with interim control treatment.

#### *Importation of Fill Materials*

All fill imported on to a site must comply with relevant EPA requirements. Fill imported on to the site shall also be compatible with the existing soil characteristics for site drainage purposes. Validation is required to ensure the imported fill is suitable for the proposed land use from a contamination perspective.

The following information on imported fill should be provided in the Validation and Monitoring Report:

1. all reports that may have been used to validate and/or verify contamination status of any imported material;
2. the address of the site that the imported material originated from;
3. the names of all persons/companies involved with the importation of fill;
4. tonnage/cubic metres of imported material;
5. the date and time of arrival of the material on site; and
6. the registration number of the vehicle delivering the material.

This information will ensure that Council is able to provide accurate information on future Planning Certificates with regard to what the land is suitable for.

### *Bioremediation*

Bioremediation, or landfarming, is the removal of contaminants from soil using natural biological processes (similar to the natural biological process that occur during composting, and is not simply the volatilization of contaminants to the atmosphere). All bioremediation areas for hydrocarbon contaminated soils shall be placed in an impermeable bunded area 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 Total Petroleum Hydrocarbons (TPH) or BTEX. It is the proponent's responsibility to have this analysed prior to discharge. Non-compliance may lead to fines under the *Protection of the Environment Operations Act 1997*.

### **3.2.4 Air Quality**

#### *Noise*

In addition, to comply with Ku-ring-gai Council's "Code for the Control and Regulation of Noise on Building Sites", remediation work shall comply with the Environment Protection Authority's *Environmental Noise Manual* for the control of construction site noise. The *Manual* specifies the following:

- 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 LA90 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 10dBA.
- 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 5dBA.
- All equipment and machinery shall be operated in an efficient manner to minimize the emission of noise.

#### *Vibration*

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

#### *Dust Control*

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

- Erection of 40% porous, open-weave barrier fence around the perimeter of the site;

- Securely covering all loads entering or exiting the site;
- Covering of all stockpiles of contaminated soil remaining more than 24 hours;
- Keeping excavation surfaces moist, use of water sprays across the site may assist;
- Limiting traffic movement; and
- The use of protective groundcovers such as mulches, hydroseeding etc immediately following completion of earthworks.

### *Odour Control*

No odours shall be detected at any boundary of the site during remediation works by a Council officer who is authorized under the POEO Act and who is relying solely on their sense of smell. 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 hydrocarbon mitigating agent on the impacted areas/materials; and
- Adequate maintenance of equipment and machinery to minimize 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 sulfide, hydrogen cyanide, pesticides, polychlorinated biphenyls (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.

### **3.2.5 Transport**

A licence under the *Protection of the Environment Operations Act 1997* (issued by the NSW Environment Protection Authority) may be required for the transport of any contaminated waste. Relevant requirements under the EPA's *Environmental Guidelines: Assessment, Classification and Management of Non-Liquid Wastes (1997)* shall also be adhered to.

All haulage routes for trucks transporting soil, materials, waste water, equipment or machinery to and from the site shall be selected to meet the following objectives:

- Comply with all road traffic rules;
- Minimize noise, vibration and odour to adjacent premises; and
- Utilize State Road and minimize use of local road (see 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 Section 3.2.1;
- Securely cover all loads to prevent any dust or odour emissions during transportation;
- Exit the site in a forward direction; and
- Do not track soil, mud or sediment onto the road.

Control of all traffic and related issues (ie numbers, tonnage/cubic metres of waste exported from the site, routes, hours, truck types, spillage on roads, cleaning etc) would be logically and conveniently contained in a “Transport Management Plan” to be provided to Council prior to the commencement of the earthworks. Transport and related matters are likely to be some of the most publicly visible aspects of the proposed works. Accordingly, having this co-ordinated plan/strategy will be invaluable to base community consultation activities upon, and to also be a valuable source document in the event of complaints, Councillor questions, etc during the process.

If there is a significant risk that road damage will occur as a result of remedial action measures, Council may require the lodgment of a bond to compensate for any such damage.

### **3.2.6 Waste Management**

Hazardous and/or intractable wastes arising from the remediation work shall be removed and disposed of in accordance with the requirements of both the EPA and the WorkCover Authority, together with any other relevant legislation and accepted guidelines, including:

- a) *New South Wales Occupational Health and Safety Act 2000 and Regulations 2001;*
- b) *Regulation 84A-J “Construction Work Involving Asbestos or Asbestos Cement” 1983, as amended 1984, 1986, 1990 and 1996 of the New South Wales construction Safety Act 1912;*
- c) *Contaminated Land Management Act 1997 and Regulations 1998;*



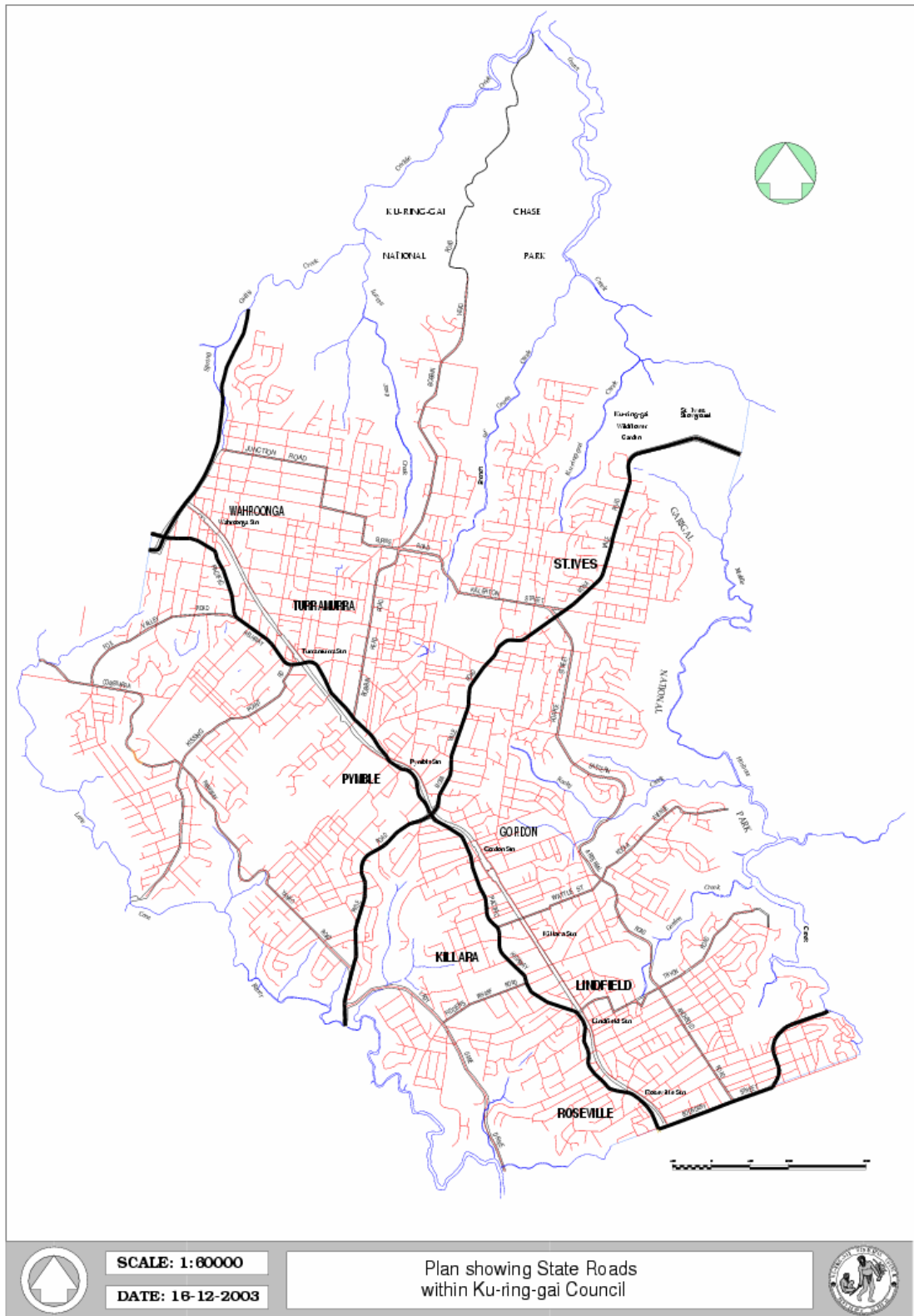
- d) *Environmentally Hazardous Chemicals Act 1985 and Regulations 1999;*
- e) *National Occupational Health and Safety Council's (NOHSC) Guide to the Control of Asbestos Hazards in Buildings and Structures;*
- f) *NOHSC's Code of Practice for the Safe Removal of Asbestos.*

Under the *Protection of the Environment Operations Act 1997* the transportation of Schedule 1 Hazardous Waste is a scheduled activity and must be carried out by a transporter licensed by the NSW Environment Protection Authority.

The disposal of contaminated soil shall have regard to the provisions of both the *Protection of the Environment Operations Act 1997 and Regulations* and any relevant EPA guidelines such as the EPA's *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, then owners of the site and the waste, as well as the transporter are all guilty of an offence.

Figure 4 State roads within Ku-ring-gai Local Government Area



### 3.2.7 Communication Plan

Whenever remediation works are conducted, Ku-ring-gai Council also requires that both the immediately affected and wider communities are communicated with appropriately, and in a simple and non-alarmist manner. A communication plan should be prepared, which is appropriate to the level of works proposed, and which also provides for all the following:

- A “facts” sheet (or similar): A facts sheet offers a simple and frank explanation of the situation, including the nature and extent of the contamination and the remediation work to be done, a list of answers to commonly asked questions, as well as a timetable for the proposed work and offering a “freecall” (1800 number or similar) contact number for further information. The communication plan should include a brief strategy for making these facts sheets freely accessible to any interested parties, whether this be by a mail-out or other method of pamphlet distribution, published on the Internet, other methods or a combination of other methods (the strategy should not, however, rely solely on the assumption that all interested parties will have access to, or be willing to use, the Internet).
- Signage: Appropriate signage would be simple and clearly understandable, would display appropriate contact details for the remediation contractor and be erected in prominent locations, at least in areas immediately adjacent to the site access. All signage shall be appropriately maintained and displayed throughout the duration of the remediation works.
- Publicity: Media releases to appropriate local journalists promoting positive and responsible handling of the issue.
- Leaflet drops in the surrounding area, consistent with Council’s Notification Policy, with the facts sheet and a letter from the responsible party.

It should be noted that Category 1 remediation works will require advertisement and will invite community submissions through the development application process.

Council shall be notified 40 days prior to commencement of Category 2 remediation work. Section 3.1.2 details what should be included in the notification. Owners and occupiers of premises adjoining, and across the road, from the site shall be notified at least 7 days prior to the commencement of Category 2 remediation works.

### 3.2.8 Site Security

The site shall be secured to protect against unauthorized access by means of an appropriate fence and lockable gates which, when locked, provide continuous perimeter security around the entire site.

### **3.2.9 Removal of Underground Storage Tanks**

The removal of underground storage tanks shall be undertaken in accordance with NSW WorkCover requirements. Requirements include the issue of written notification to the Chief Inspector of Dangerous Goods and compliance with all conditions imposed. The contents of the Australian Institute of Petroleum's Code of Practice entitled "*The Removal and Disposal of Underground Petroleum Storage Tanks*" (AIP CP22-194) shall also be actively considered in the development of any plans for the removal and/or disposal of such tanks.

### **3.2.10 Occupational Health and Safety**

All site remediation works shall comply with all Occupational Health and Safety and Construction Safety Regulations of the NSW Work Cover Authority. Safety monitoring for hydrocarbon emissions should be undertaken in accordance with "*Worksafe Time Weighted Averages Guidelines*", 1991.

## 4. INDEPENDENT SITE AUDITING

Site Auditors are experts who can provide an independent review of the work of a primary consultant for all types of contaminated sites. The *Contaminated Land Management Act 1997* allows for the EPA to accredit suitably qualified and experienced individuals as site auditors.

Council can request an independent review by a site auditor at any stage during contamination investigations at the cost of the proponent. All Council requests for an independent review of a site audit must be performed by an EPA accredited auditor for contaminated land. An up-to-date list of EPA accredited auditors can be obtained on the EPA's webpage at: <http://www.environment.nsw.gov.au>

### 4.1 What is a Site Audit?

The *Contaminated Land Management Act 1997* defines a site audit as: “an independent review:

- (a) *that relates to investigation, or remediation, carried out (whether under this Act or otherwise) in respect of the actual or possible contamination of land, and*
- (b) *that is conducted for the purpose of determining any one or more of the following matters:*
  - (i) *the nature and extent of any contamination of the land,*
  - (ii) *the nature and extent of the investigation or remediation;*
  - (iii) *what investigation or remediation remains necessary before the land is suitable for any specified use or range of uses.*
  - (iv) *the suitability and appropriateness of a plan of remediation, a long-term management plan, a voluntary investigation proposal or a remediation proposal.*

The EPA has also prepared *Guidelines for the NSW Site Auditor Scheme* which outline the scheme, the process of appointing site auditors, and the legal, administrative and technical directions and guidelines for site auditors and the preparation of site audit statements.

### What is a Site Audit Statement?

A Site Audit Statement provides a clear statement about what land use is suitable for the site, including any conditions on that suitability (eg to maintain capping). A Site Audit Statement must be prepared on a form approved by the EPA (see EPA's website, [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)). When an accredited auditor for contaminated land is requested to conduct a site audit, they must also prepare a site audit statement.

A statutory Site Audit Statement can only be issued by an EPA accredited auditor for contaminated land. A copy of all statutory site audit statements must be given to the EPA and Council.

#### **4.2 When does Council Require a Site Audit?**

Council may request a site audit to be undertaken at any or all stages in the site investigation process or the planning of remediation of Category 1 or 2 remediation. Council, in accordance with the *Managing Land Contamination Planning Guidelines*, will require a site audit prepared by an EPA accredited auditor for contaminated land if Council:

- *“believes on reasonable ground 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 control its own technical review.”*

Council will inform the proponent in writing if a site audit is required. The proponent is responsible for engaging an EPA accredited auditor for contaminated land to perform a site audit. An up-to-date list of accredited auditors is available on the EPA’s website, [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).

The proponent is responsible for all costs borne for the site audit.

It is recommended that an EPA accredited auditor is engaged early on in the site assessment process to ensure that the consultant does the work to the auditor’s satisfaction to avoid lengthy delays.

##### **4.2.1 What Will the Site Audit Cover?**

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

When Council requests a site audit, Council will also specify any issues that shall be included within the scope of the site audit. As well as requiring a site audit to address the issues in Section 4.1, the following are examples of issues that Council may request an EPA accredited auditor for contaminated land to address when conducting a site audit:

- To determine if the contaminated land consultant complied with all appropriate standards, procedures and relevant EPA guidelines.
- To determine if further investigations or remediation is required before the land is suitable for any specified use or range of uses.

- To determine if the proposed remediation is adequate and, if undertaken, will render the site to be suitable for the proposed use.
- To determine if there is any unacceptable off-site migration of contaminants, particularly via ground water.
- To determine if the contamination conditions at the site are suitable for in-ground absorption of stormwater.

Either the proponent or the appointed 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 summary site audit report, which contains the information that supports the site audit statement. The EPA *Guidelines for the NSW Site Auditor Scheme* provides detailed guidance on the content of the statement and audit report.

## 5. COUNCIL RECORDS AND COMMUNITY INFORMATION

Council has a responsibility to provide information regarding land use history, land contamination and remediation. The *Managing Land Contamination Planning Guidelines* emphasise the importance of local government information systems in ensuring that adequate information is available to Council staff and the community in relation to both actual and potential land contamination. Council also has a statutory responsibility to include certain contaminated land information on Planning Certificates.

Council has conducted a review of readily available information to gather information on land use history and potentially contaminated land. The process of information collection about land contamination will be ongoing as new information becomes available, particularly as investigation or remediation is carried out.

### 5.1 How Does Council Manage Contaminated Land Information?

Council does not hold a “register” of contaminated sites. Council’s records regarding contamination issues are dynamic and will change over time as land is investigated, remediated and validated and as new sites of potential contamination are identified.

Development of the property information system has involved consideration of “activities that may cause contamination” (Table 1 of the *Managing Land Contamination Planning Guidelines*, reproduced in Appendix 1 of this Policy) consultation with staff of the Council and affected property owners, and review of selection Council property files. Council will consult confidentially with property owners about the information regarding contamination to be recorded on the property information system (Appendix 2).

The files accessed in connection with relevant land use and development inquiries (such as planning correspondence, preparation of Planning Certification and processing of a development application) are routinely reviewed for any relevant file history.

Existing records in relation to site contamination issues are kept on individual property 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 (where available/known):

- Site contamination reports submitted to Council (ie 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 by the EPA).
- Development applications for Category 1 remediation works.
- Prior notification to Council of Category 2 remediation works.



- Notification to Council of completion of Category 1 and Category 2 remediation work.
- Information regarding previous or current land uses which may have resulted in soil contamination.

Council's property information system has been prepared in good faith in the interests of responsible planning and is used as a first point of reference by staff. However in terms of information on contamination it is not necessarily comprehensive or definitive and should be viewed as evolving. A notation in relation to contamination against a property on the information system does not necessarily imply the actual existence of contamination on the property. This can only be determined as a result of a sampling and analysis program.

For example, prior to urban settlement sizeable areas of Ku-ring-gai were covered by agricultural and horticultural land uses, which are listed in the *Managing Land Contamination Planning Guidelines* as activities that may cause contamination. Council has not attempted to identify all areas of agricultural and horticultural uses. Instead intensive uses, such as market gardens, identified through the initial evaluation for development assessment and rezoning proposals will be identified on the information system.

Notations may be made on the property information system in relation to investigations and remediation work carried out for individual properties. This will enable staff to identify land which has been fully remediated or remediated for specific land uses. A form for Council staff to advise revision of information on the property information system is provided in Appendix 3.

Some properties listed on the information system may be subject to legal notices under legislation administered by the NSW Environmental Protection Authority. The public should consult with the Environment Protection Authority for up-to-date information on any such land in the local government area.

## **5.2 How do Potential Purchases Know if Land is Potentially Contaminated?**

Under Section 149 of the *Environmental Planning & Assessment Act 1979*, a person may request from Council a Planning Certificate that contains advice on matters about a property. For example, the existence of a council policy to restrict the use of land would be shown on a Planning Certificate, however, in order to ensure that the most up-to-date information is accessed, please also refer to the NSW Department of Environment and Conservation's public register of contaminated sites, which is available on the Department's website, [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au), or otherwise directly with the Department. Council's Planning Certificates may include the following notations in relation to contaminated land.

### **5.2.1 Notations for Planning (Section 149) Certificates**

The following italicized questions and notations (as appropriate) will appear on a Planning Certificate for a property. The normal text provides guidance as to which notation should be used.

***Is the property affected by one of the site contamination notices outlined in Section 59(2) of the Contaminated Land Management Act 1997?***

*YES. Council is aware that there is an <investigation order under Section 17> of the Contaminated Land Management Act 1997 in relation to this property. Some further information in relation to this matter may also be available from the NSW Environment Protection Authority.*

*<remediation site under section 21>*

*<investigation area under section 15>*

*<remediation order under section 23>*

*<voluntary investigation proposal has been the subject of an EPA agreements under section 19>*

*Voluntary remediation proposal has been the subject of an EPA agreement under section 26>*

*OR*

*YES. Council is aware that there is a site audit statement under Part 4 of the Contaminated Land Management Act 1997 in relation to this property.*

*OR*

*NO.*

***Do any Council Policies or Resolutions restrict the development of the property due to the likelihood of landslip, bushfires, flooding, tidal movements, subsidence, contamination or any other risk?***

As to which option (1 – 4 below) is included in any particular Planning Certificate depends on what information Council has in relation to the state of contamination (or potential contamination) of the site which is the subject of the Certificate.

1. Where Council's contaminated land policy restricts the use of the land which:
  - Has a previous land use history which could have involved use of contaminants on the site, for example, land which may have been used for an activity listed in Appendix 1; or
  - Is known to be contaminated, but
  - **Has not been** remediated. An appropriate notation may be:

*Council has adopted by resolution a Contaminated Land Policy which may restrict the development of the land. This policy is implemented when zoning or land use changes are proposed on land which may have previously been used for certain purposes. Consideration of Council's adopted policy and the application of provisions under relevant State legislation is warranted.*

2. Where Council's contaminated land policy restricts the use of land which:

- Is known to contain contaminants, but
- Has been remediated for a particular use or range of uses and some contamination remains on the site. An appropriate notation might be:

*Council has adopted by resolution a Contaminated Land Policy which may restrict the development of land. This policy is implemented when zoning of land use changes are proposed on lands which are considered to be contaminated, or on land which have been remediated for a specific use. Consideration of council's adopted policy and the application of provisions under relevant State legislation is warranted.*

3. Where Council records **do not contain a clear site history within significant gaps in information** and council cannot determine whether or not the land is contaminated, and therefore the extent to which council's policy should apply, council may decide to take a cautious approach. In such cases an appropriate notation might be:

*Council has adopted by resolution a Contaminated Land Policy which may restrict the development of the land. This policy is implemented when zoning or land use changes are proposed on lands which have previously been used for certain purposes. Council records do not have sufficient information about previous use of this land to determine whether the land is contaminated. Consideration of Council's adopted policy and the application of provisions under relevant State legislation is warranted.*

4. **No** notation would be necessary under this question on a Section 149(2) of the EP&A Act where Council's Policy **does not restrict** the use of land and is unlikely to result in a restriction once the land has been further investigated. This would include:

- Land which has been used for a purpose listed in Appendix 1 but which has been remediated to an extent that no restriction on land use is necessary; or
- There is a history of non-contaminating activities on the land and there is no evidence to suggest that the land has been used for a purpose listed in Appendix 1.

However, all other certificates shall contain the following note:

*Note: A review of Council's readily available records has been conducted to identify previous land uses that may have caused land contamination. This review did not reveal any reason for contamination of this property. However, prior to urban settlement, sizeable areas of Ku-ring-gai were covered by agricultural and horticultural activities. These uses are listed in the Managing Land Contamination Planning Guidelines as activities that may cause contamination. If you are concerned about possible contamination of the site you should make your own investigations regarding the condition of this property.*

Section 149(5) of the EP&A Act provides that Planning Certificate can contain information other than that prescribed by relevant legislation. These Planning Certificates attract an additional fee under Council's Fees and Charges Policy. This information may include notation from the property file, such as:

- Relevant site history in relation to potential contamination from Council's property file records;
- The nature of any potential contamination from the Council's property information system;
- Whether Council has any records of investigation or remediation undertaken.

### **5.2.2 How can Property Owners change the Notation on the Planning Certificate for their Property?**

Council will take into consideration any information that the property owner can provide in relation to contamination or land use. However, Council will take a precautionary approach when considering information and may consult the EPA when necessary in order to make a decision.

Council may require further information when:

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

Other considerations that may be taken into account when deciding what information to include on a planning certificate, include site consideration such as topography.

No notation would be necessary where Council's Policy does not restrict the use of the land unless the property is the subject of a Site Audit Statement, which must be referred to under the Legislation.

### 5.3 Access to Council Information

#### 5.3.1 Information available to Property Owners or their Agents

Property owners, or persons authorized by them in writing, may be provided with information (if any) from the Council's property information system in relation to their own property.

#### 5.3.2 Information available to all Inquirers

Council is formally advised whenever a notice is issued under the *Contaminated Land Management Act 1997* and annotates its section 149 certificates accordingly. All other inquiries in relation to potentially contaminated land should follow the following process:

Type of Information	How to Obtain Information
Current and past development, building, subdivision and rezoning applications.	Written request to the General Manager in accordance with Council's schedule of fees and charges.
Information on reports held by Council in relation to site contamination issues.	Written request to General Manager in accordance with Council's schedule of fees and charges. 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	Planning Certificate in accordance with Council's schedule of fees and charges.
Information on whether any declarations or orders made or voluntary proposals agreed to under <i>CLM Act</i> have been provided to Council by the EPA or whether Council has received any Site Audit Statements	Planning Certificate in accordance with Council's schedule of fees and charges.
Copies of any Site Audit Statements	Written request to General Manager in accordance with Council's schedule of fees and charges.

Any other information held by Council (other than stated above) in relation to site contamination issues	Written request to General Manager in accordance with Council's schedule of fees and charges. The written request shall specify what information is requested, who is requesting the information and what is the intended use of the information.
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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,
- when the prioritisation of the information is contrary to the provisions of an Act, or
- when the information requested might be published without prior permission of Council, the current site owner or author of the contamination reports.

## 6. GLOSSARY

**ANZECC:** Australian and New Zealand Environment and Conservation Council (for further information refer to [www.deh.gov.au/cooperation/anzecc/](http://www.deh.gov.au/cooperation/anzecc/))

**Complying Development:** is development which must comply with a set of standards set by Council, and identified in Schedule 2 of Council’s Exempt and Complying Development DCP (DCP 46).

**CLM Act:** *Contaminated Land Management Act 1997*

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

**DEC:** Department of Environment and Conservation (incorporating the former Environment Protection Authority or “EPA” – (for further information refer to [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)))

**DIPNR:** Department of Infrastructure Planning and Natural Resources (incorporating the former Department of Urban Affairs and Planning or “DUAP”, also previously known as “PlanningNSW” - (for further information refer to [www.dipnr.nsw.gov.au](http://www.dipnr.nsw.gov.au)))

**Designated development:** is a particular type of development that is likely to significantly affect the environment. These are set out in Schedule 3 of the *Environmental Planning and Assessment Regulation 1994*. For example: contaminated soil treatment works, extractive industries, or waste management facilities or works.

**Detailed investigation:** required where a preliminary investigation indicates that the land is contaminated or that is, or was, formerly used for an activity listed in Appendix 1 and there is a potential risk posed by contamination to health and the environment under the proposed land use. A detailed investigation defines the nature, extent and degree of contamination; assess potential risk posed by the contamination, and to obtain sufficient information to develop a residential action plan (RAP), if required.

**Development:** includes the erection of any building, the subdivision of land and the carrying out of any work, and the use of the land or building or work thereon for a purpose which is different from the purpose for which the land or building or work was last being used.

**EP&A Act:** *Environmental Planning and Assessment Act 1979*

**EPA:** The former Environment Protection Authority (now part of the Department of Environment & Conservation or “DEC” – see definition, above)

**Exempt Development:** is development that does not require any approval, if the work is carried out within the limitations set out in Schedule 1 of the Exempt and Complying Development DCP (DCP 46). It relates to minor works such as awnings, barbeques, fences, garden sheds, and the like, which are of limited size and satisfy Council's exemption requirements.

**Initial evaluation:** is carried out by the planning authority to determine whether contamination is an issue and whether sufficient information is available to carry out a planning function in good faith. The initial evaluation can be based on readily available factual information and should be carried out regardless of the nature of the proposed use or the current use.

**Investigation area:** land declared to be an investigation area under Division 2 of Part 3. The EPA may declare land to be an investigation area if it has reasonable grounds to believe that the land is contaminated with a substance in such a way as to present a significant risk of harm. Council does not declare investigation areas.

**Land:** includes:

- a) the sea or an arm of the sea,
- b) a bay, inlet, lagoon, lake or body of water, whether inland or not and whether tidal or non-tidal; and
- c) a river, stream or watercourse, whether tidal or non-tidal and
- d) a building erected on the land

*(Environmental Planning and Assessment Act 1979)*

**Leachate:** A polluted liquid or other solution that leaks or "leaches" from an area as groundwater passes through, primarily with respect to contaminated site or to a former landfill site.

**Preliminary investigation:** carried out by a suitably qualified and experienced consultant on behalf of the proponent to identify any past or present potentially contaminating activities, provide a preliminary assessment of any site contamination. A preliminary investigation will only be asked for where, after an initial investigation, there are indications that contamination is, or may be, present.

**Remedial Action Plan:** A plan of remediation that demonstrates how the proponent or their consultant proposes to reduce risks to acceptable levels and achieve clean-up objectives for the site.

**Remediation:** (a) remove, dispersing, destroying, reducing, mitigating or containing the contamination of any land, or



(b) eliminating or reducing any hazard arising from the contamination of any land (including preventing the entry of person or animals on the land).

**SEPP 55:** *State Environmental Planning Policy No 55 – Remediation of Land.*

## Appendix 1 Schedule of potentially contaminating activities

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

- acid/alkali plant and formulation
- agricultural/horticultural activities
- airports
- asbestos production and disposal
- chemicals manufacture and formulation
- defence 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
- 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

For that purpose, the contamination may be within a structure/building or other structure on the land, rather than only within the soil of that land or in any water on or below the surface of that land and the bed of such water.

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

## **Appendix 2 Letter to be used when details regarding contamination need to be added to Council's property information system**

Address

Dear <>

### **PROPERTY AT <> AND COUNCIL'S CONTAMINATED LAND POLICY**

The State Government requires all councils to prepare a policy to manage contaminated land. Council has prepared a Contaminated Land Policy and conducted an initial review of its records to determine what land will be affected. The above-mentioned property has been identified as potentially contaminated land.

#### *What does "potentially contaminated" land mean?*

Council has identified land with the assistance of a list of "activities that may cause contamination" prepared by the NSW Environment Protection Authority. This list includes activities such as horticulture, dry cleaning, engine works, and service stations. The above-mentioned property has a history of one of the listed activities and is therefore considered "potentially contaminated".

#### *What does this mean for my property?*

Because of State Government requirements it is now necessary that information relating to potential land contamination will be available to prospective buyers of the property when they purchase a Planning Certificate<sup>1</sup> from Council.

The Planning Certificate for the above property will contain the following information:

*«Section\_1495\_notation»*

This does not necessarily mean the property is contaminated. You may have information or you may wish to undertake investigation to clarify the extent of any contamination of the property.

Under the draft Policy, any future development of the property may require further investigation or remediation, at the cost of the property owner.

#### *How can I find out more information?*

A copy of the Policy is available for viewing at the Council Chambers or at Ku-ring-gai's local libraries. It is also available for purchase from the Council. Please contact Council's Manager Environmental Policy on **9424 0888** if you would like to discuss the issues raised in this letter.

Yours sincerely

L Webb  
DIRECTOR  
PLANNING & ENVIRONMENT