Contaminated Land Guideline

A guide to dealing with contaminated land within Queanbeyan-Palerang Regional Council

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Regional Contaminated Land Capacity Building Program

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1 PURPOSE

Queanbeyan-Palerang Regional Council (QPRC) is committed to ensuring that the use of contaminated land, or suspected contaminated land, occurs in a way that minimises risk to the community and the environment. The objective of this Policy is to provide a framework to assist Council, residents and proponents of development to respond proactively to contaminated land based hazards and risks.

To respond responsibly and proactively to contamination hazards and risks, using the land use planning framework and facilitating economic development of contaminated or potentially contaminated land.

To achieve this, Council will:

1. Maintain a database of contaminated or potentially contaminated land, and record any relevant information on remediation, abatement, or site audits of work undertaken in the QPRC area.
2. Ensure that information provided by the NSW Environment Protection Authority (EPA) in respect of the EPA Register of Significantly Contaminated Land (and other information as appropriate), or information held in Council's Contaminated or Potentially Contaminated Land Database (the Database), is noted on any relevant section 10.7 (2) Planning Certificate, including advice that further information is available from Council.
3. Ensure that appropriate consideration of contamination issues is made during the rezoning and development assessment process, including:

   - identification of the presence of, or the potential for, contamination on the land;
   - consideration of the outcomes of any land contamination study;
   - consideration of any remediation or abatement that has occurred on the land; and
   - the application of requirements set out in the *Contaminated Land Management Act*,

   All land within Queanbeyan-Palerang Regional Council is subject to the provisions of SEPP (Resilience and Hazards), and relevant local environmental plan (LEP). The Queanbeyan-Palerang Regional Local Environmental Plan 2022, came into effect on 30 November 2022. There are also applicable Development Control Plans, policies and guidelines.
4. Develop and implement educational material and a formal Communications Strategy to translate the Policy into operational guidelines for Council officers and the community Under 145B of the *NSW Environmental Planning and Assessment Act 1979 (EP&A Act),* councils who act in good faith are afforded exemptions of liability for any planning decisions made by council.

Contaminated land in New South Wales (NSW) is primarily managed through two avenues:

1. *Sites where contamination is considered significant enough to warrant regulation are regulated by the NSW Environment Protection Authority (EPA) through the powers provided to it under the Contaminated Land Management Act 1997.*
2. *Other sites are managed by Councils via land use planning instruments, through the powers provided to it under the Environmental Planning and Assessment Act 1979.*

Under the provisions of this policy, Council has developed a framework to manage contaminated or potentially contaminated land within the LGA in accordance with the *EP& A Act and SEPP (Resilience and Hazards)*.

Note - Schedule 6 of the EP& A Act provides that, planning authorities that act substantially in accordance with SEPP (Resilience and Hazards) and related guidelines, are taken to have acted in good faith when carrying out planning function.

2 SCOPE OF THE POLICY

In accordance with the planning guidelines, this policy aims to:

- Ensure any land use changes will not increase the risk to human health and the environment
- Avoid inappropriate restrictions on land use; and
- Providing information to support decision making and to inform the community of Council's requirements.

The content of this policy is relevant to:

- Local government staff
- Contaminated land practitioners
- Land owners
- Developers
- The general public

3 OUTCOMES

The outcomes of this policy are to:

- Ensure that changes in land use do not increase the risk to human health or the environment.
- Consider the likelihood of contamination as early as possible when carrying out regulatory, management or planning activities.
- Ensure Council maintains a suitable contaminated land information system, enabling it to provide stakeholders with accurate information relating to land contamination.
- Ensure Council exercises its functions relating to the development of contaminated land in accordance with the relevant legislation, guidelines, and codes.
- Avoid any inappropriate restrictions on land use arising from contamination
- Ensure site investigation, remediation and reporting works are completed in a satisfactory manner

- Provide information to support QPRC decision making, and to inform the community of potential restrictions on development arising from land contamination.

4 POLICY APPLICATION

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

This policy applies to the following functions of Council:

- The preparation, amendment, and application of Local Environmental Plans
- The preparation, amendment, and application of Development Control Plans
- The Preparation, amendment, and application of Plans of Management for Community Land
- The determination of Development Applications
- The modification of Development Consent Conditions
- The determination of activities pursuant to part 4 of the Environmental Planning and Assessment Act 1979; and
- The storage and sharing of contaminated land information through s10 planning certificates.

This policy outlines a framework for the management of Contaminated Land regulated by local Council, as determined by the Environmental Planning and Assessment Act 1979 and Managing Land Contamination Planning Guidelines SEPP 55 - Remediation of Land (1998) ("the Planning Guidelines"). The National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013) ASC NEPM), and relevant Council policies, procedures, and processes.

The objective of this Policy is to provide a framework to assist Council, residents and proponents of development to respond proactively to contaminated land-based hazards and risks.

This Policy applies to the management of contaminated or potentially contaminated land through the land use planning process including listed and draft Environmental heritage items, or items that have Aboriginal/ Archaeological heritage significance, and is a land based policy only.

5 DEFINITIONS

Abatement	a barrier over affected areas to reduce exposure pathways, and may include a barrier over affected areas which contains the contamination on the land.
Approved voluntary management proposal (VMP)	a voluntary management proposal that has been approved by the EPA under section 17 of the Contaminated Land Management *Contaminated Land Management Act (*1997) as modified by any conditions imposed by the EPA under that section.
Assessment of site contamination	a set of formal methods for determining the nature, extent and levels of existing contamination and the actual or potential risk to human health or the environment on or off-site resulting from that contamination.
Category 1 Remediation Work	Remediation works requiring Development Consent under SEPP (Resilience and Hazards) 2021.
Category 2 Remediation Work	Remediation works that do not require Development Consent (but must be notified to Council) under SEPP (Resilience and Hazards) 2021
Captains Flat Lead Management Taskforce	Government multi agency Taskforce established in 2021 in response to the elevated lead levels as a legacy of Lake George mine at Captains Flat.
Competent and qualified contamination consultant	Two contaminated land consultation certified schemes have recently merged: The *Environment Institute of Australia and New Zealand (EIANZ) Certified Environmental Practitioners Scheme (CEnvP) Contaminated Land specialisation* and the *Site Contamination Practitioners Australia (SCPA) scheme* have merged to form a new *'Site Contamination' specialist certification operating under CEnvP.* Council recognises this merged scheme, and continues to recognise the *Soil Science Australia (SSA) Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) certification scheme.*
Contaminated Land	land in, on or under which any substance is present at a concentration above that naturally present in, on or under the land and that poses, or is likely to pose, an immediate or long-term risk to human health or the environment.
Contamination	The condition of land or water where any chemical substance or waste has been added as a direct or indirect result of human activity at above background level and represents, or potentially represents, an adverse health or environmental impact.
Council official	Includes Councilors, Council staff, administrators, Council committee members and delegates of Council.
CLM Act	*Contaminated Land Management Act* 1997 (NSW)
Detailed Site Investigation (DSI)	An investigation with the objective to define the nature, extent and degree of contamination; assess potential risk posed by contaminants to health and the environment; and obtain sufficient information to develop a Remedial Action Plan (if needed)

Development Application (DA)	A Development Application is a formal request for consent to carry out development and is considered under Part IV of the *Environmental Planning & Assessment Act* 1979
Development Consent	Formal approval from Local Councils to proceed with a development. Development Consent is required prior to commencement of any works associated with development governed by Part IV of the *Environmental Planning & Assessment Act* 1979
Development Control Plan (DCP)	provides guidance to the development of land under the applicable Queanbeyan-Palerang Regional Council DCP.
Duty to Report	The duty to report significant contamination to the NSW EPA is a requirement under the *Contaminated Land Management Act* 1997, with updates provided in the *Contaminated Land Management Amendment Act* 2008. The triggers for reporting are presented in the "Guidelines on the Duty to Report Contamination under the *Contaminated Land Management Act* 1997" (2015)
Environment Protection Authority (EPA)	the NSW Environment Protection Authority constituted by the *Protection of the Environment Administration Act 1991*.
Local Environmental Plan (LEP)	An LEP guides planning decisions for Local Government Areas through zoning and development controls, which provide a framework for the way land can be used. LEPs are Planning Instruments from the *Environmental Planning & Assessment Act* 1979
Local Government Area (LGA)	Queanbeyan–Palerang Regional Council is our local government area located in the Southern Tablelands region of New South Wales. A total area of 5,319 km².
Management Order	An order under section 14 (1) under the *Contaminated Land Management Act*.
National Environment Protection (Assessment of Site Contamination) Measure 1999 *(April 2013 ASC NEPM)*	a measure made under section 14(1) of the Commonwealth Act and the equivalent provisions of the corresponding Acts of participating States and Territories.
Notification of remediation	Prior notice of a category 2 remediation work given to the council in accordance with SEPP (Resilience and Hazards) 2021.
Ongoing Environmental Management Plan (OEMP)	A plan outlining monitoring and management requirements where contamination remains on site, and there is uncertainty as to its potential to migrate; and / or the effectiveness of the management measures implemented to contain the contamination following remediation and validation; and / or monitoring and ongoing management forms part of the remediation strategy
Ongoing maintenance order	An order under section 28 (2) of the *Contaminated Land Management Act*.
Planning Application	A Development Application or Planning Proposal made to Council in accordance with the *Environmental Planning and Assessment Act* 1979 (NSW)
Planning Guidelines	NSW SEPP (Resilience and Hazards) 2021
Planning Proposal	A formal application submitted to Council proposing to rezone land

POEO	*Protection of the Environment Operations Act* 1997 (NSW)
Potentially contaminated land	Land that may be contaminated with a concentration of substances above that naturally present that may pose or is likely to pose a potential or actual risk to human health or the environment such as uncontrolled and unidentified fill on land.
Preliminary Site Investigation (PSI)	An investigation to identify any past or present potentially contaminating activities, to provide a preliminary assessment of any site contamination, and if required, to provide a basis for a more detailed investigation
Remediation	of contaminated land includes: (a) preparing a long-term management plan (if any) for the land, and (b) removing, dispersing, destroying, reducing, mitigating or containing the contamination of the land, and (c) eliminating or reducing any hazard arising from the contamination of the land (including by preventing the entry of persons or animals on the land).
Remedial Action Plan (RAP)	A plan that sets objectives, and documents the process, for remediating a contaminated site
Section 10.7 Planning Certificate	Planning Certificate under Section 10.7 of the *Environmental Planning and Assessment Act* 1979 (NSW) that provides information to owners and prospective purchases as to any restrictions on the land.
SEPP 55	REPEALED
SEPP (Resilience & Hazards) 2021	This Policy commences on 1 March 2021.
Significantly Contaminated Land	A site is declared Significantly Contaminated Land by the EPA where contamination is considered significant enough to warrant regulation under the *Contaminated Land Management Act* 1997 (with changes made through the *Contaminated Land Management Amendment Act* 2008) given the site's current or approved use.
Site Audit	An independent review by a Contaminated Land Auditor, accredited by the NSW EPA, of any or all stages of the site investigation process, conducted in accordance with the requirements of the *Contaminated Land Management Act* 1997.
Site Auditor	person accredited by the EPA under the *Contaminated Land Management Act* to conduct site audits.
Site Audit Report (SAR)	A report which summarises the report(s) audited and provides the Auditor's opinion and conclusions. A Site Audit Report must be accompanied by a Site Audit Statement.
Site Audit Statement (SAS)	A statement which outlines the conclusions of a site audit. A Site Audit Statement must be accompanied by a Site Audit Report.
Site History	a land use history of a site which identifies activities or land uses which may have contaminated the site, establishes the geographical location of particular processes within the site, and determines the approximate time periods over which these activities took place.

Site investigation process	the process of investigating land which may be, or is, contaminated, for the purpose of providing information to a planning authority.
Stage 1 Preliminary Investigation	an investigation to identify any past or present potentially contaminating activities and to provide a preliminary assessment of any site contamination.
Stage 2 Detailed Investigation	an investigation to define the extent and degree of contamination, to assess potential risk posed by contaminants to health and the environment, and to obtain sufficient information for the development of a remedial action plan if required.
Stage 3 Remedial Action Plan	a plan which sets remediation goals and documents the process to remediate a site.
Stage 4 Validation and Monitoring	An investigation to determine whether the objectives for remediation and management of contamination have been achieved.
Standard Remediation Action Plan (SRAP)	The Standard RAP outlines a standard remediation response that is designed to be appropriate for ancillary works to existing dwellings at Captains Flat.
Validation	The objective of the validation stage of the contaminated land process is to demonstrate whether or not the objectives stated in the Remedial Action Plan have been achieved
Virgin Excavated Natural Material (VENM)	'natural material' (such as clay, gravel, sand, soil or rock fines), that has been excavated or quarried from areas that are not contaminated or hazardous.
Voluntary management proposal	see section 17 (1) of the *Contaminated Land Management Act*.
Waste Classification	Those who generate waste are responsible for having their waste classified into one of six waste classes under the Waste Classification Guidelines. NSW EPA resource recovery orders and exemptions should then be checked.

6 RESPONSIBILITY

Several areas of council are responsible for the implementation of this policy.

Position Title	Responsibility
Manager Natural Landscapes and Health	Implementation and review of the policy, and ensuring staff are sufficiently trained to implement the policy.
Manager Development Control	The application of this policy in development applications and compliance.
Development Assessment Team	Application of this policy in relation to Development Assessment.
Land-use Planning Team	Application of this policy in relation to planning proposals and zoning changes within the LEP, DCP, provision of information for s10.7 certificates and updating the Contaminated Land Register.
GIS Team	Responsible for updating and improving Council property information system /

	contaminated land information system with applicable contamination information.
Environmental Health Officers	Application of this policy in relation to development referrals, assessment of contaminated land information.
Council Works Project Mangers	The application of this policy in works undertaken under the Infrastructure State Environmental Planning Policy and Part 5 of the Environmental Planning and Assessment Act 1979.

7 LEGISLATIVE OBLIGATIONS AND/OR RELEVANT STANDARDS

This policy is supported by key legislative instruments, including:

- State Environmental Planning Policy (Resilience and Hazards) 2021
- Contaminated Land Management Act 1997
- Contaminated Land Management Amendment Act 2008
- Contaminated Land Management Regulation 2013
- Environmental Planning and Assessment Act 1979
- Environmental Planning and Assessment Regulation 2000
- Government Information (Public Access) Act 2009
- Guidelines endorsed by the NSW EPA under the CLM Act.
- Local Government Act 1993
- Local Government (General) Regulation 2005
- National Environment Protection (Assessment of Site Contamination) Measure 1999, 2013 amendment
- Protection of the Environment Operations Act 1997
- Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019
- Work Health and Safety Act 2011

Note: State Environmental Planning Policy No. 55 – Remediation of Land is a repealed State Environmental Planning Policy and has been superseded by the State Environmental Planning Policy (Resilience and Hazards) 2021.

The Queanbeyan-Palerang Regional Local Environmental Plan 2022, came into effect on 30 November 2022. There are also applicable Development Control Plans, policies and guidelines.

8 MANAGING CONTAMINATED LAND

The management of contaminated land is a shared responsibility between the EPA, NSW Planning and Environment (DPE), and Council - in very broad terms:

- the EPA, which uses its powers under the *Contaminated Land Management Act (1997)* to deal with site contamination that is significant enough to warrant regulation under the Act given the site's current or approved use;
- local councils who deal with other contamination under the planning and development framework, including *SEPP* (Resilience and Hazards) *and the Contaminated Land Guidelines*, on sites which, though contaminated, do not pose an unacceptable risk under their current or approved use. In these cases, the planning and development process determines what remediation is needed to make the land suitable for a different use.

Under the provisions of this policy, Council has developed a framework to manage contaminated or potentially contaminated land within the City in accordance with the *EP& A Act and SEPP* (Resilience and Hazards).

Note - Schedule 6 of the EP& A Act provides that, planning authorities that act substantially in accordance with SEPP (Resilience and Hazards) and related guidelines, are taken to have acted in good faith when carrying out planning functions.

When carrying out planning functions under the *EP& A Act*, Council must consider the possibility that a previous land use, or an adjoining/nearby land use, has caused contamination of the site; as well as the potential risk to health or the environment from that contamination. The general principle of contamination management under *SEPP (Resilience and Hazards)*, and the related guidelines, is that a precautionary approach be adopted when exercising a planning function, and that the identification of land contamination issues occurs at an early stage in the planning process in order to prevent harm and reduce delays and costs.

Upon receipt of a Planning Proposal for LEP amendment request or a Development Application, relevant staff will undertake a review of the application to determine if the land warrants further investigation in relation to contamination. If this review identifies evidence of potential or actual contamination, further assessment of contamination will be conducted.

9 ASSESSING DEVELOPMENT APPLICATIONS INVOLVING CONTAMINATION

When assessing development applications, Council is required to initiate the Contaminated Land Process if it considers that land contamination may be present and could pose a risk to human health and/or the environment.

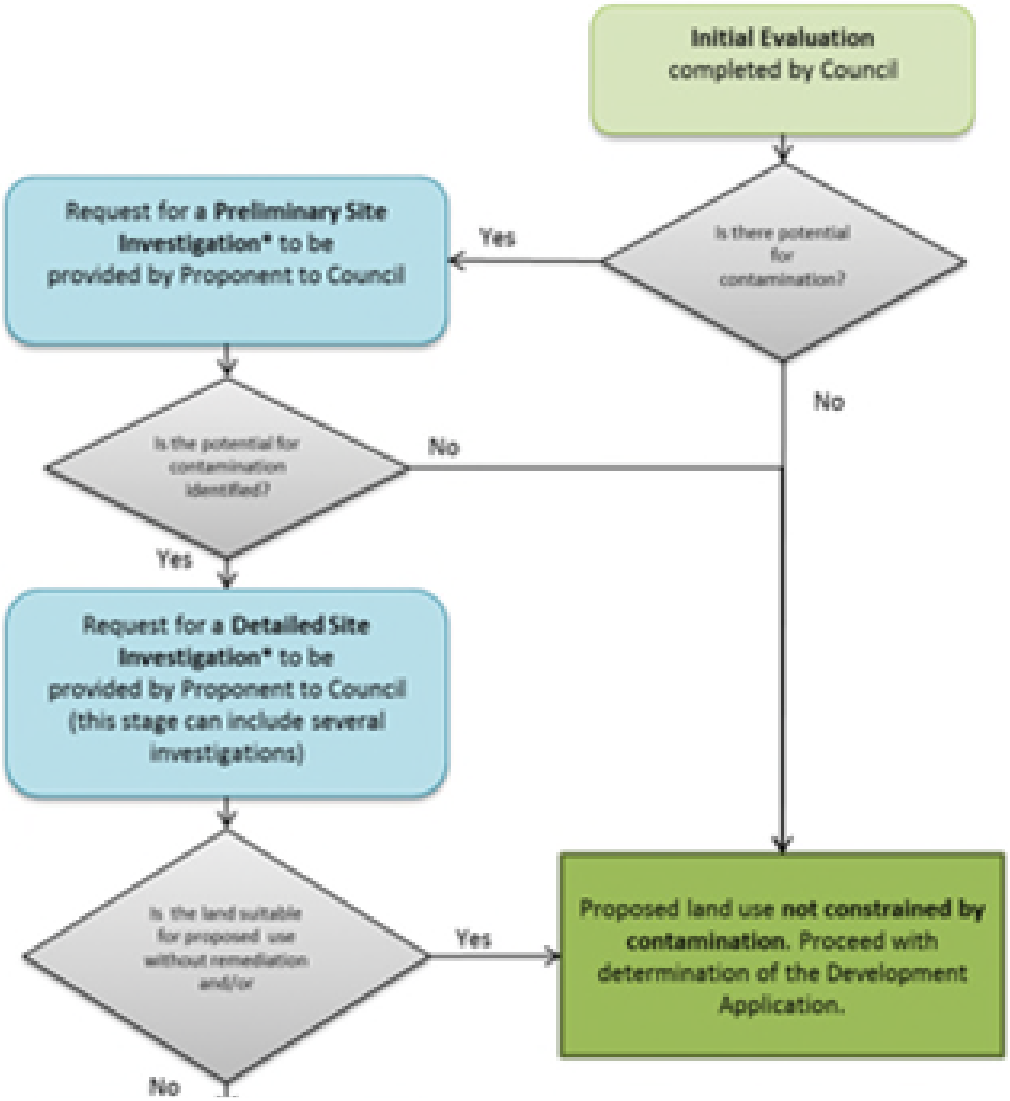
This typically occurs in two stages:

1. Request for Information; and
2. Conditions of Development Consent

10 REQUESTS FOR INFORMATION

Council, as the regulatory authority, is unable to provide consent for a development until it is satisfied that the site is, or can be made, suitable (during the development stage with the implementation of remediation and/or management) for the proposed land use. For that reason, Site Investigation and Remedial Action Plan stages will typically be addressed through a "Request for Information" process rather than specifying them as conditions of development consent.

Figure 1 shows the typical process for Requests for Information. However, it should be noted that the level of information needed to ensure the land is, or can be made, suitable for the proposed land use needs to be assessed on a case-by-case basis. In some situations, the request for information may include further stages of the Contaminated Land Process (than those outlined in Figure 1) if deemed necessary for Council to make a determination on the development application.



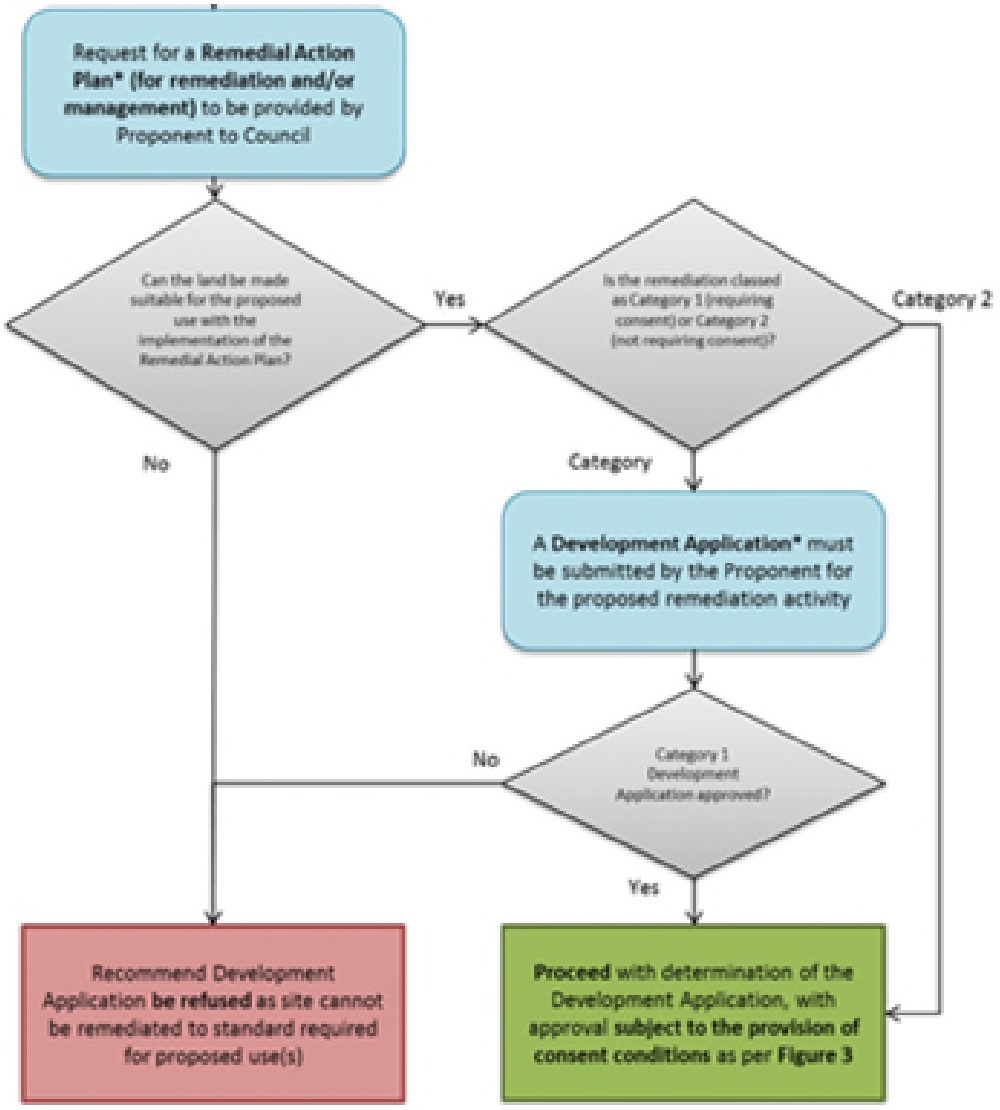


Figure 1. Process for Determining Requests for Information

Note: Council may require the Proponent to provide a Site Audit Report as part of the Request for Information. A Site Audit may be requested for any or all stages of the Contaminated Land Process (ie. of the Contaminated Land Consultant's work), Where Council:

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

Requesting the Proponent to engage a NSW EPA Accredited Site Auditor provides greater certainty about the information on which the land use planning decisions are based, in particular where a sensitive land us is proposed or where contamination is complex.

11 PLANNING PROPOSALS

SEPP (Resilience and Hazards) requires consideration of contamination issues when rezoning land. Council must determine, at an early stage in the development process, if a rezoning could allow a change of use that may increase the risk to health or the environment from contamination. Council must be satisfied that the land is suitable for the proposed use or can be remediated to ensure its suitability. This includes considering the history of land that is adjacent to the land being considered for rezoning, as this may have a bearing on the potential or effect of contamination to the land proposed for rezoning. A Stage 1 Preliminary investigation will be required at the rezoning stage to assess if the land is potentially contaminated land.

Policy Statement:

Council will not approve a Development Application or Planning Proposal, unless it is satisfied that, based off the information available to it:

- Contamination has been considered;
- If the land is contaminated, that the land is suitable in its contaminated state (or will be suitable following remediation) for all of the uses permissible under the approval; or
- If the land is contaminated, that conditions can be placed through planning instruments or on development consents and approvals under Part IV of the Environmental Planning and Assessment Act 1979 that will ensure any contaminated land can be remediated to a level appropriate to its intended use, prior to, or during the development stage.

12 CONTAMINATED LAND INFORMATION SYSTEM

Council has a responsibility to provide the community information relating to land contamination, land use history and remediation and validation works. Council also has a statutory responsibility to include certain information on planning certificates issued for the purpose of s10.7 of the *Environmental Planning and Assessment Act* 1979. The information required to be provided by Council includes:

- s59 of the *Contaminated Land Management Act 1997* (i.e. information provided to Council by either the NSW EPA or Accredited Auditors).

- Schedule 2 of the *Environmental Planning and Assessment Regulation* 2021 (i.e. whether there is a policy adopted by Council or any other public authority that restricts the development of the land, in this case due to actual or potential contamination). This Schedule does not take effect until 1 October 2022. Schedule 6, section 8(1) provides that the *Environmental Planning and Assessment Regulation 2000*, Schedule 4 continues to apply until the end of 30 September 2022.

The development and implementation of an accurate Contaminated Land Information System will aid Council in meeting its legislative requirements. Whilst there is no legislative requirement for Council to notify a land owner when their parcel of land is included as 'potentially contaminated' in a Contaminated Land Information System, notifying the landowner provides the opportunity for them to establish that the land is not contaminated and should not be notified

on a Section 10.7(2) Planning Certificate, or alternatively, to manage or undertake remediation of the land. Notifying the property owner of a site's inclusion also allows the owner the opportunity to reduce the potential risk of harm to the health of the land's occupants and to the environment.

Information contained within Councils Contaminated Land Information System is also available to the public via access to documents on request in accordance with the requirements of the *Government Information (Public Access) Act* 2009. This includes making publicly available and free of charge land contamination consultants reports filed within the system.

Policy Statement:

- Council will maintain a Contaminated Land Information System to support its planning functions and provide relevant and accurate information regarding contaminated land to the public, in accordance with the *NSW Government Information (Public Access) Act* 2009.
- Where Council has a Contaminated Land Information System in place, and the inclusion of a property in the system has the potential to restrict the development or use of the land, the property owner will be notified of the inclusion, on request, via a 10.7(2) Planning Certificate.
- Council will request that all contaminated land reports provided exempt Council from any claim for copyright that may restrict Council's ability to provide information to the public in accordance with the *Government Information (Public Access) Act* 2009 and the *Contaminated Land Management Act* 1997.

13 PLANNING CERTIFICATES S10.7 (2)

Under the *Environmental Planning and Assessment Regulation* 2000 (schedule 4) and s59 (2) of the *Contaminated Land Management Act 1997*, Council has a legal obligation to provide certain information through section 10.7(2) planning certificates in relation to land contamination.

Section 10.7 (2) certificates issued by Council will include information relevant to the property on the date the certificate is issued. This information will include:

a) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act—if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,

b) that the land to which the certificate relates is subject to a management order within the meaning of that Act—if it is subject to such an order at the date when the certificate is issued,

c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act—if it is the subject of such an approved proposal at the date when the certificate is issued,

d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act—if it is subject to such an

order at the date when the certificate is issued, that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act—if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

Policy Statement:

Section 10.7(2) Planning Certificates issued by Council are to:

- Contain information on matters prescribed under Section 59(2) of the *Contaminated Land Management Act* 1997 that are relevant to the property.
- Whether or not the land is affected by an adopted policy of the Council or any other public authority that restricts the development of land because of the likelihood of any risk of contamination
- Provide notations on the certificates as per Attachment A.

14 CONTAMINATED LAND CERTIFICATION REQUIREMENTS

Engaging professionals who have the relevant qualifications, competencies and experience is important when investigating and managing contaminated sites. Contaminated Land Consultant certification schemes have been developed to ensure consultants dealing with contaminated sites have the necessary competencies to carry out the work. Certification under a recognised scheme should be interpreted as the consultant meeting an acceptable minimum standard of competency. Currently, the certification schemes recognised by NSW EPA and Council are:

- Site Contamination Practitioners Australia (SCPA) scheme for Certified Practitioner – Site Assessment and Management (CP SAM)
- Environment Institute of Australia and New Zealand's (EIANZ) Contaminated Land Assessment Specialist Certified Environmental Practitioner (CLA Specialist CEnvP) scheme
- Soil Science Australia (SSA) Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) certification.

Policy Statement:

Contaminated land reports are to be prepared or reviewed and approved by an appropriately qualified and certified Environmental Consultant (for any reports submitted from 1 July 2021 and onwards). Currently, the certification schemes recognised by NSW EPA and Council are (noting other schemes may become recognised):

- Site Contamination Practitioners Australia (SCPA) scheme;
- Environment Institute of Australia and New Zealand's (EIANZ) Contaminated Land Assessment Specialist Certified Environmental Practitioner (CLA Specialist CEnvP) scheme; or
- Soil Science Australia (SSA) Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) certification.

15 INVESTIGATION AND REPORTING

It is essential that consultants reporting on contaminated land sites complete their investigations and reports in accordance with the NSW EPA prepared and adopted guidelines. To assist Council staff when assessing planning applications, an accompanying report synthesis, presenting project background, qualifications relevant to scope of work, objectives, key issues, investigation findings and recommendations is to be provided with each report.

Policy Statements:

- All investigations and accompanying reports provided to Council are to be completed in accordance with NSW EPA prepared and adopted guidelines.
- All contaminated land reports provided to Council are required to include a summary report synthesising qualifications, key findings and recommendations.

16 SITE INVESTIGATION, REMEDIATION AND VALIDATION

To ensure Council satisfy their legislative requirements when considering planning applications, an appropriate investigation process is required.

Initial Evaluation

An initial evaluation of potential site contamination is to be completed by council. The initial evaluation will determine whether contamination needs to be addressed during the assessment of a Planning Application, and to determine whether further information is required for Council to conduct its planning functions in good faith.

Policy Statement:

- An initial evaluation of a sites potential contamination is to be completed by Council for all land use Planning Applications.

Preliminary Site Investigation (PSI)

A Preliminary Site Investigation (PSI) is to be provided by the proponent when an Initial Evaluation indicates that contamination is or may be present on the site. The report must adequately identify potential human and ecological receptors (on- and off-site) and identify potentially affected media (soil, sediment, groundwater, surface water, soil vapour and indoor and outdoor air).

The main objectives are to identify any past or present potentially contaminating activities, provide a preliminary assessment of any site contamination, indicate all contaminants of potential concern including emerging contaminants that have been identified during the preliminary site investigation and if required, provide a basis for a Detailed Site Investigation.

Where a complete site history clearly shows that activities have been non-contaminating, there are no impacts from off-site contamination sources, and observations do not indicate any potential for contamination, there may be no need for further investigation or site sampling.

Policy Statement:

- A Preliminary Site Investigation is required when an Initial Evaluation identifies that contamination is, or may be present on the site, or if potential or actual contamination on an adjacent area has the potential to migrate to the site.

Detailed Site Investigation (DSI)

If a Detailed Site Investigation (DSI) is to be provided by the proponent, the main objectives are to define the nature, extent and degree of contamination, to assess potential risk posed by contaminants to human health and the environment, and to obtain sufficient information to develop a Remedial Action Plan, if required. It should be noted that the Detailed Site Investigation Stage of the process may entail several investigations and reports.

Policy Statement:

A Detailed Site Investigation is required when:

- A Preliminary Site Investigation indicates that the land is, or may be contaminated;
- The site is, or was, used for an activity listed in Table 1 of the Managing Land Contamination Planning Guidelines (refer Attachment A), or other potentially contaminating activities known to Council, and a land use change is proposed that has the potential to increase the risk of exposure to contamination; or
- To accompany a remediation proposal or notification.

Remedial Action Plan (RAP)

A Remedial Action Plan (RAP) is to be provided by the Proponent. The objectives are to set remediation objectives and formally document the process to remediate the site. The proposed remediation is to (as a minimum) reduce the risk from contamination to acceptable levels for the proposed land use scenario. The Remedial Action Plan should be based on the information from previous investigations.

Policy Statements:

- A Remedial Action Plan is required where the Detailed Site Investigation identifies that remediation or management is needed to render the site suitable for its intended land use
- A Remedial Action Plan (and accompanying investigation reports) must accompany the Planning Application where development consent is required for remediation (i.e. Category 1 Remediation Works as defined in Attachment B).
- A Remedial Action Plan (and accompanying investigation reports) must accompany any notification to Council for proposed Category 2 Remediation work.

Validation and Ongoing Monitoring

Validation and / or Environmental Monitoring Reports are to be provided by the Proponent. The objective of Validation is to demonstrate whether the objectives stated in the Remedial Action Plan and any conditions of development consent have been achieved. At times, this may include ongoing monitoring following the completion of remediation. Monitoring undertaken for a limited time is typically incorporated into the Validation Report.

In situations where full clean-up is not feasible or on-site containment of contamination is proposed, the need for an On-going Environmental Management Plan including monitoring, maintenance and management measures should be determined by both the Proponent's Consultant and the Planning Authority.

SEPP (Resilience & Hazards) requires a Notice of Completion to be provided to Council for all remediation work. The Notice of Completion is to include the Validation Report (with monitoring results if monitoring was undertaken).

Policy Statements:

- A Validation Report (including monitoring results where applicable) is required to validate the completion and effectiveness of all remediation works for which consent has been provided by Council (i.e. Category 1 Remediation Works).
- The Notice of Completion provided to Council for any Category 2 remediation works is to include the Validation Report.
- An On-going Environmental Management Plan is required to be provided to Council and implemented where contamination remains on site, and there is uncertainty as to its potential to migrate; and / or the effectiveness of the management measures implemented to contain the contamination following remediation and validation; and / or monitoring and ongoing management forms part of the remediation strategy.

17 SITE AUDITS

A Site Audit is an independent review of any or all stages of the site investigation process, conducted by a Site Auditor accredited by the NSW EPA in accordance with the *Contaminated Land Management Act* 1997. Engaging a Site Auditor can provide greater certainty about the information on which the planning authority bases its decision, particularly where sensitive uses are proposed, and / or where contamination and remediation is complex.

Policy Statements:

- Council may require a Site Audit to be carried out where Council:
  - Believes on reasonable grounds that the information provided by the Proponent is incorrect or incomplete;
  - Wishes to verify whether the information provided by the Proponent has adhered to appropriate standards, procedures and guidelines; or
  - Does not have the internal resources to conduct its own internal technical review.
- All costs associated with providing a Site Audit or Site Audit Statement are to be borne by the Proponent.

18 CONTROL OF REMEDIATION WORKS

Remediation is generally considered beneficial as it improves the quality of the environment, reduces health risks and restores land to productive use. However, in some situations remediation work itself has the potential for environmental impact, and the planning process must ensure that these impacts are adequately identified and mitigated. SEPP (Resilience & Hazards) provides consistent state-wide planning and development controls for the remediation of contaminated land.

Remediation work which requires development consent is known as Category 1 Remediation Work. All other remediation work may be carried out without development consent and is known as Category 2 Remediation Work, however Council must be notified prior to commencement and upon completion of Category 2 Remediation Works. The triggers for Category 1 Remediation Works are presented in Attachment B.

Policy Statements:

- Development consent is required for the following remediation work:
  - Category 1 Remediation Work requiring consent as defined by SEPP (Resilience and Hazards Chapter 4 Section 4.8 (refer to Attachment B);
  - Proposed works that are inconsistent with the requirements of this policy (i.e. remediation works that do not comply with the conduct of remediation works specified in Attachment C, and are thereby reclassified as Category 1 Remediation Work); or
- Council must be notified of proposed Category 2 Remediation Works no less than 30 days prior to their scheduled commencement.

19 DUTY TO REPORT

The duty to report contamination to the NSW EPA is a requirement under the *Contaminated Land Management Act* 1997, with updates provided in the *Contaminated Land Management Amendment Act* 2008.

The following people are required to report contamination as soon as practical after they become aware of any contamination that meets the triggers for the duty to report:

- Anyone whose activities have contaminated land; or
- An owner of land that has been contaminated.

It should be noted that although the above people have the duty to report contamination, anyone can at any time report suspected contamination to the NSW.

Policy Statement:

- Where Council reasonably believes that contamination on a site triggers the duty to report contamination, and it is not clear if the polluter or site owner has reported the contamination, it may notify the EPA for possible action under the *Contaminated Land Management Act* 1997.

20 PREVENTING CONTAMINATION

Proactive measures to prevent possible contamination at its source can help to reduce the need for remedial action in the future. Preventing contamination occurring in the first place can therefore have significant environmental and financial benefits for Council and the Community.

Policy Statements:

- For potentially polluting activities, Council will apply and enforce conditions of development consent that ensure effective and ongoing control measures are implemented.
- Council may undertake risk-based compliance inspections of potentially contaminating industries / activities to ensure compliance with consent conditions and environment protection legislation.

21 UNDERGROUND PETROLEUM STORAGE SYSTEMS

Underground Petroleum Storage Systems (UPSS) have the potential to leak, and due to their underground location, leaks are commonly undetected for periods of time. Contamination caused by leaking UPSS can result in harm to human health and the environment, costly remediation projects, and migration of contamination to neighbouring sites.

Table 1. Issues to be considered by Consent Authorities under the UPSS Regulation (adapted from DECCW (2009)

Scenario	**Planning Conditions should consider:**
Installation and commissioning of a new UPSS	A new UPSS must meet the following requirements before commissioning: • Be appropriately designed, installed and commissioned by duly qualified persons in accordance with the UPSS Regulation; • Includes the equipment required by AS 4897-2008: The design, installation and operation of underground petroleum storage systems, as in force from time to time; • A leak detection system is installed on the storage site in accordance with Part 3 of the UPSS Regulation; and • Have a certificate showing that an equipment integrity test (EIT) has been carried out in line with the written directions of duly qualified persons.
Installation of groundwater monitoring wells on UPSS sites	All sites must have groundwater monitoring wells designed and installed by duly qualified persons in accordance with relevant industry standards. The person responsible for the system must ensure that the duly qualified persons provide details of specifications relevant to the design and installation of the wells. Groundwater monitoring wells must be: • Sealed to exclude surface water; • Constructed to prevent cross-contamination with other groundwater monitoring wells; • Properly secured and clearly marked to indicate their presence; and • Tested for hydrocarbon contamination at minimum intervals of six months.
Operational management of a new UPSS	All sites with operating UPSS must have a Fuel System Operation Plan (FSOP) in place. Procedures must also be prepared and documented for loss monitoring and detection, and incident management.
Modification of a UPSS	A modified UPSS must meet the following requirements before commissioning: • Be appropriately designed, implemented and commissioned by duly qualified persons in accordance with the UPSS Regulation; • Includes the equipment required by AS 4897-2008: The design, installation and operation of underground petroleum storage systems, as in force from time to time;

Scenario	Planning Conditions should consider:
	• A leak detection system is installed on the storage site in accordance with Part 3 of the UPSS Regulation; and • Have a certificate showing that an equipment integrity test (EIT) has been carried out in line with the written directions of duly qualified persons. If the activity is one that triggers development approval from the local authority, consent conditions should consider whether the installation of mandatory pollution protection equipment and groundwater monitoring wells are required. The system cannot be recommissioned without certification that an Equipment Integrity Test (EIT) has been performed in line with the written directions of a duly qualified person. The person responsible must also be in possession of documentation showing appropriate design, installation and testing/commissioning, including current as-built drawings and dates of commencement and completion of modification, as provided by a duly qualified person. If a modification of a storage system involves the removal or replacement of any tank, the person responsible must not authorise or permit the commissioning of the system, unless a validation report has been submitted to the relevant local authority: • No later than 60 days after a tank's removal or replacement; or • No later than 60 days after remediation of the site is completed, where this is required. Validation reports must be produced by a duly qualified person and kept by the person responsible for seven years from the date of creation or seven years after the decommissioning of the tank.
Repair to a UPSS	Depending on the nature of the activity, repairs may not trigger consent. However, if a UPSS leaks and repair work is undertaken, the system cannot be recommissioned unless it satisfies the requirements outlined in the UPSS Regulation.
Decommissioning UPSS sites and tank removal	Validation and reporting of the condition of a UPSS site following tank removal or site decommissioning must address all areas of the site consistent with the requirements of the UPSS Regulation and SEPP 55. If a storage system is to be decommissioned, the person responsible for the storage system must notify Council no later than 30 days before the system is decommissioned or removed. In the case of urgent and unforeseen decommissioning, the person responsible must notify Council as soon as reasonably practicable after the decision to decommission the system is made. A validation report for tanks that are removed or decommissioned must be submitted to Council no later than 60 days after the completion of works or, where site remediation is required, within 60 days of its

Scenario	Planning Conditions should consider:
	completion. The purpose of the validation report is to assist Council with future planning decisions.

***Note**: for the purpose of a DA, all potentially contaminating activities and areas of concern on the site must be considered in accordance with the Development Application Process and Contaminated Land Process. However, since UPSS has specific requirements and regulation, the relevant conditions and requests for information presented in this Section are to be added for sites that have known or suspected UPSS.*

22 CAPTAIN FLAT LEAD CONTAMINATION

The Captains Flat Lead Management Plan Precinct (the Precinct in Attachment D) was defined in the Conceptual Site Model (Ramboll 2021a) and encompasses built areas of the Captains Flat community, the legacy Lake George Mine site and the Molonglo River from upstream of the water supply dam to a waterhole approximately 1.5 km downstream of the mine. The Precinct includes roads accessing Captains Flat (to a distance of at least 400 m), the rail corridor (to a distance of 1 km) and bushland areas at the perimeters of the community.

An extensive assessment has been completed targeting the environmental impacts of historic mining at Captains Flat and the associated risks to human health and the environment. Key reports include the Literature Review - Nature and extent of contamination in the Captains Flat Region, NSW (Department of Planning Industry and Environment Contaminant and Risk Team 2021), the Conceptual Site Model – Captains Flat Lead Management Plan (Ramboll 2021a) and the Public Land Abatement Options Assessment – Captains Flat Lead Management Plan (Ramboll 2021b).

The Captains Flat Taskforce jointly considered the Lead Expert Working Group Report on Managing Residual Lead Contamination in North Lake Macquarie (2016) as a relevant case study for identifying management practices at Captains Flat. Nineteen of the recommendations from that report were considered by the Taskforce.

Standard Remediation Action Plan (SRAP) for Private Property

A generic or Standard RAP for Captains Flat has been prepared to guide remediation on private residential properties. This is only for properties with an existing dwelling and involves minor ancillary development. It is not intended for subdivision or new dwellings.

Living with Lead Guidance

Regional NSW provides living with lead guidance and other information relevant to contamination at Captains Flat on its website: www.nsw.gov.au/regional-nsw/captains-flat.

To address the potential risk from consumption of home grown produce the NSW EPA fact sheet dated March 2021 available at the above link recommends to always use raised vegetable gardens with clean imported soil and wash vegetables before consuming.

More information is available from NSW Health:
https://www.health.nsw.gov.au/environment/factsheets/Pages/lead-exposure-children.aspx

ATTACHMENT A – POTENTIALLY CONTAMINATING ACTIVITIES

Source: Managing Land Contamination. Planning Guidelines SEPP 55 – Remediation of Land (1998)

Table 1. Some Activities that may Cause Contamination

- acid/alkali plant and formulation
- agricultural/horticultural activities
- airports
- asbestos production, disposal and demolition
- 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, including lead paint contamination
- 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

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. This 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.

ATTACHMENT B – CATEGORY 1 REMEDIATION WORKS

SEPP (Resilience and Hazards) 2021—Remediation of Land, Clause 4.8 defines Category 1 Remediation Work as:

"*For the purposes of this Guideline, a category 1 remediation work is a remediation work (not being a work to which clause 4.11 (b) applies) 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
(f) 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 Minister).

Note. See Section 5A of the Environmental Planning and Assessment Act 1979 for the factors to be taken into account in assessing whether there is likely to be a significant effect as referred to in paragraph (c) above. The terms used in that paragraph are defined in that Act by reference to both the Threatened Species Conservation Act 1995 and the Fisheries Management Act 1994."

ATTACHMENT C – SITE MANAGEMENT REQUIREMENTS FOR REMEDIATION WORKS

All Category 2 remediation works must be carried out in accordance with the following site management requirements. These have been established to prevent Category 2 work adversely impacting on the environment and public amenity.

Category 2 remediation works that do not comply with these requirements will be classified as Category 1 remediation work and will require development consent.

Remediation Work

All remediation work must be carried out in accordance with:

- State Environmental Planning Policy (Resilience and Hazards) 2021
- Any guidelines published by the NSW Environment Protection Authority under the *Contaminated Land Management Act 1997.*
- Approved Remediation Action Plan (RAP)

Hours of Operation

Unless approved otherwise, remediation work must be carried out between the following hours:

Monday – Friday	7.00am to 4.00pm
Saturday	8.00am to 4.00pm

No work is permitted on Sundays or Public Holidays

Site Signage

A sign displaying the contact details of the remediation contractor and site manager (if different from the remediation contractor) must be displayed on the site adjacent to the site access, including a contact telephone number that is available 24 hours a day, 7 days a week. The sign must be clearly legible from the street and be displayed for the duration of the remediation works.

Notification of Adjacent Owners and Occupiers

The occupiers of all adjacent premises must be notified of the proposed remediation works at least 7 days before the works commence.

Site Security

The site must be securely fenced and any other necessary precautions taken, to prevent unauthorised entry to the site for the duration of the remediation works.

Soil and Water Management

All remediation work must be carried out in accordance with a soil and water management plan. A copy of the soil and water management plan must be kept on-site and be made available to Council Officers on request.

Sediment and Erosion Controls

Appropriate sediment and erosion controls must be installed before remediation works are commenced and be maintained in a functional condition until site stabilisation works have been completed.

Prior to the commencement of any remedial work, an erosion and sediment control plan (ESCP) or Soil and Water Management Plan (SWMP) are to be prepared by a suitably qualified person in accordance with ***"The Blue Book – Managing Urban Stormwater (MUS): Soils and Construction"*** **(Landcom)** must be submitted to and approved by the certifying authority. Control over discharge of stormwater and containment of run-off and pollutants leaving the site/premises must be undertaken through the installation of erosion control devices including (and not limited to) catch drains, energy dissipaters, level spreaders and sediment control devices such as hay bale barriers, filter fences, filter dams, and sedimentation basins.

Stockpiles

- No stockpiles of soil or other materials are to be placed on footpaths or nature strips without the prior written approval of Council.
- All stockpiles of soil or other materials must be placed away from drainage lines, gutters, stormwater pits or inlets, trees or native vegetation and be provided with appropriate erosion, sediment and leachate management controls.
- All stockpiles of soil or other materials likely to generate dust or odours must be covered (where practical).
- All stockpiles of contaminated soil must be stored in a secure area.

Site Access

Vehicular access to the site must be restricted to a stabilised access point.

Protection of Public Roads

Appropriate measures must be taken to prevent the spreading of mud, soil or sediment by vehicles leaving the site. These measures could include the installation of shaker grids, rock crossovers or wash-down bays to minimise the transportation of sediment.

Any wastewater from washing the wheels and underbodies of vehicles must be collected and disposed of in a manner that does not pollute waters.

Any mud, soil or sediment tracked or spilled on the roadway must be swept or shovelled up immediately. Hosing of the roadway is not permitted.

Disposal of Water from Excavations

All excavation pump-out water must also be analysed for suspended solids, pH and any contaminants of concern identified during the contamination assessment phase, and comply with relevant EPA and ANZECC water quality criteria prior to discharge to the stormwater system.

Other options for the disposal of excavation pump-out water include disposal to sewer with the prior approval of the relevant water utility, or off-site disposal by a licensed liquid waste transporter at an appropriately licensed liquid waste treatment or processing facility.

Site Stabilisation and Revegetation

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

Bunding

All land farming areas of hydrocarbon contaminated soils must be bunded to contain surface water runoff and to prevent the leaching of contaminants into the underlying soils. This will typically require placement on a sealed surface or on durable plastic.

All contaminated water from bunded areas must be discharged to sewer with the prior approval of the relevant water authority, or be disposed of off-site by a licensed liquid waste transporter at an appropriately licensed liquid waste treatment or processing facility.

Protection of Trees

Trees on the site must not be removed, lopped or otherwise trimmed without the prior approval of Council.

Trees to be retained on the site must be protected from damage to their foliage and root systems. Suitable measures may include erecting fences or barriers to keep earthmoving equipment and heavy vehicles well clear of trees.

Noise

Noise must be minimised as far as practicable, by the selection of appropriate methods and equipment, and by the use of silencing devices where practicable.

Noise from remediation work must comply with the guidelines for construction site noise specified in the *interim Construction Noise Guideline* (OE&H- EPA 2009).

Council is the appropriate regulatory authority for noise from non-scheduled construction activities in its area, except as described in Section 6(2) of the *POEO Act* 1997, and thus has discretion in dealing with noise.

Any noise monitoring must be carried out by a suitably qualified Acoustical Consultant if complaints are received, or if directed by Council, and any noise control measures recommended by the Acoustical Consultant must be implemented throughout the remediation work.

Vibration

The use of plant or machinery must not cause vibrations to be felt on any other premises.

Air Quality

Dust Control

Dust emissions must be confined within the site boundaries. The following dust control measures may be employed to comply with this requirement:

- Erection of dust screens around the perimeter of the site
- Use of water sprays across the site to suppress dust
- Keeping excavation surfaces moist
- Covering of all stockpiles of soil and other materials likely to generate dust (where practical)
- Securely covering all loads entering or exiting the site.

Asbestos

Works involving the potential disturbance of asbestos containing materials must be carried out in strict accordance with SafeWork NSW and NSW EPA disposal requirements.

Odour Control

Remediation work must not result in the emission of odours that can be detected at any boundary of the site by an Authorised Council Officer. The following measures 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 mitigating agents on hydrocarbon impacted areas or materials
- Maintaining equipment and machinery to minimise exhaust emissions.

If odours are detected, the site is to be inspected by a suitably qualified Environmental Consultant and recommended control measures are to be implemented throughout the remediation process.

Burning of Materials

No materials are to be burned on site.

Transport

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

- Comply with all road traffic rules
- Minimise noise, vibration and odour to adjacent premises
- Minimise use of local roads.

All transport operators and drivers transporting soil, materials, equipment or machinery to and from the site must:

- Use the designated haulage routes and site access points
- Make all deliveries and pick-ups between the hours specified in Hours of Operation
- Securely cover all loads to prevent any dust or odour emissions during transportation
- Not track soil, mud or sediment onto the road.

Hazardous Wastes

Hazardous wastes arising from the remediation work must be removed, stored and disposed of in accordance with the requirements of the EPA and SafeWork NSW, including the following legislation and guidelines:

- *Work Health & Safety Act* 2011
- *Work Health & Safety Regulation* 2011
- *Protection of the Environment Operations Act* 1997
- *Protection of the Environment Operations (Waste) Regulation* 2005
- Waste Classification Guidelines (NSW EPA, 2014), and associated addenda (available on http://www.epa.nsw.gov.au/wasteregulation/classify-waste.htm), resource recovery orders and exemptions (current list available on http://www.epa.nsw.gov.au/wasteregulation/orders-exemptions.htm)
- *Environmentally Hazardous Chemicals Act* 1997.

Documentary evidence verifying that all wastes have been classified and disposed of appropriately must be included in the Monitoring and Validation report for the site.

Disposal of Contaminated Soil

Contaminated soil must be disposed of in accordance with the requirements of the *Protection of the Environment Operations Act 1997* and Regulations and any relevant NSW EPA guidelines such as the publication titled Waste Classification Guidelines (NSW EPA, 2014) and associated addenda (available on http://www.epa.nsw.gov.au/wasteregulation/classify-waste.htm), and resource recovery orders and exemptions (current list available on http://www.epa.nsw.gov.au/wasteregulation/orders-exemptions.htm)

NOTE: If contaminated soil or other waste is transported to a site unlawfully, the owner of the waste and the transporter are both guilty of an offence.

Containment / Capping of Contaminated Material

On-site containment or capping of contaminated soil is not permitted if the concentrations of contaminants are statistically above the soil investigation levels specified in The *National Environment Protection (Assessment of Site Contamination) Measure 1999*, amended in 2013 (ASC NEPM, 2013) for the range of land-uses permitted on the site (unless otherwise agreed with Council or other relevant authority through the endorsement of a Remedial Action Plan and an On-going Environmental Management Plan).

Importation of Fill

Fill material must be validated (at its source if practicable), prior to being imported onto the site. The validation must indicate that the material is free of contaminants (i.e. comprises Virgin Excavated Natural Material (VENM) or Excavated Natural Material (ENM)) or as otherwise approved by the NSW EPA, or the relevant resource recovery exemptions and orders. Fill imported on to the site should also be compatible with the existing soil characteristic for site drainage purposes.

Fill material may be validated by one or both of the following methods:

- The fill should be accompanied by documentation from the supplier which certifies that the material is not contaminated based upon analyses of the material or the known past history of the site where the material is obtained
- The fill should be sampled and analysed in accordance with the relevant EPA Guidelines, to ensure that the material is not contaminated.

Documentary evidence verifying that any fill material has been appropriately validated must be included in the Validation Report for the Site.

Groundwater

An appropriate license must be obtained from the NSW Office of Water for approval to extract groundwater. Prior to discharge to the stormwater system, site groundwater must be analysed for any contaminants of concern and comply with relevant EPA and ANZECC water quality criteria.

Other options for the disposal of groundwater include disposal to sewer with the prior approval of the appropriate water authority, or off-site disposal by a liquid waste transporter at an appropriately licensed liquid waste treatment or processing facility.

Removal of Underground Storage Tanks

The removal of underground storage tanks (UST) must be undertaken in accordance with the requirements of the *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019*, WorkSafe NSW and relevant Australian Standards.

Following the removal of USTs, the tank pits must be remediated and validated in accordance with *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019* and relevant guidelines provided under the Regulation.

Excavation and Backfilling Work

All excavation and backfilling work must be carried out by competent persons in accordance with WorkSafe requirements, including the publication titled *Excavation Work Code of Practice: (WorkCover, 2015).*

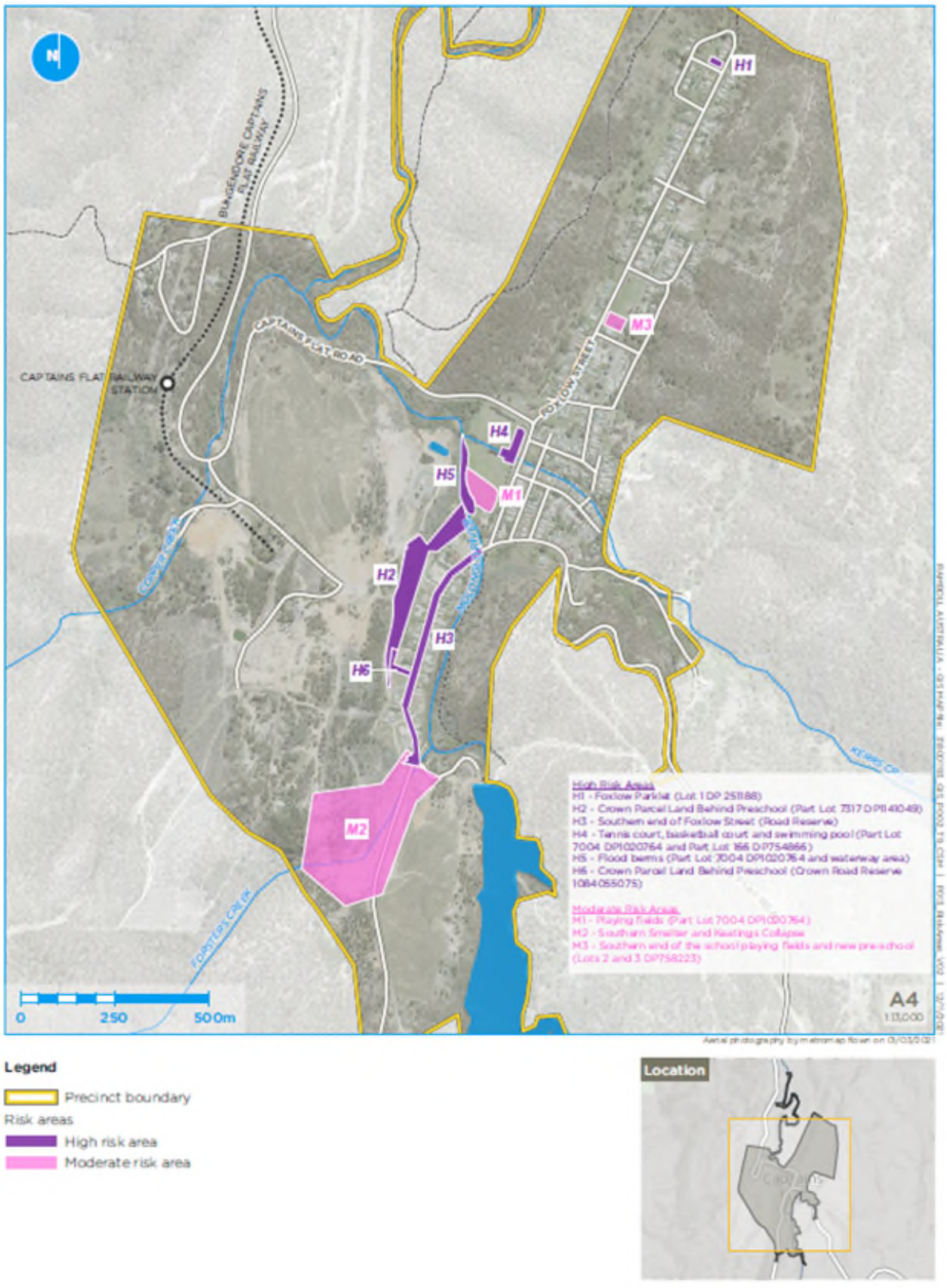
If it is necessary to excavate adjacent to an adjoining building or structure, and the excavation work may damage or impair the stability of the building or structure, the person proposing to carry out the work must:

- Take all necessary precautions to protect the building or structure from damage, including any shoring or underpinning where appropriate
- Provide details of the proposed work to the adjoining owner at least seven (7) days before the works commence.

Building and Demolition Work

Development consent may be required from Council for any associated building or demolition work.

ATTACHMENT D – MAP OF THE CAPTAINS FLAT LEAD MANAGEMENT PLAN PRECINCT (THE PRECINCT)



Source: Captains Flat Lead Management Plan, Ramboll 2021 for Department of Regional NSW