A blue and white cover with a picture of a river

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# Acknowledgements

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Its development was a collaboration between the following CRCB projects:

* Riverina and Murray Joint Organisation (RAMJO)
* Riverina Eastern Regional Organisation of Councils (REROC)
* Far North West Joint Organisation (FNWJO)
* Dubbo Regional Council.

Oversight of a process to develop this framework was provided by a steering committee comprising:

* Bridgett Leopold, Nicola Gleeson and Yvonne Lingua (Executive Officer, RAMJO)
* Julie Briggs (Chief Executive Officer, REROC)
* Colby Farmer (Executive Manager, Development and Environmental Services, Coolamon Shire Council)
* Colin Kane (Director, Environment and Planning, Greater Hume Council)
* Andrew Hill (Team Leader, Education and Compliance, Albury City Council)
* David Kellett (Principal Officer, Environment, Griffith City Council).

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* RAMJO
* REROC
* Northern River Contaminated Land Project (Christine Pitman)
* FNWJO (Lisa Schiff and John Cavanagh)
* Dubbo Regional Council (Helen Eyre)
* Canberra Regional Joint Organisation (Noel Schiller)
* Bathurst Regional Council (Sam Murray)
* Golder and Associates (now part of WSP).

Disclaimer

Development of this framework was guided by the NSW contaminated land regulatory framework and the NSW planning system at the date of publication of this document.

It is acknowledged that the NSW Department of Planning and Environment is to release, in the near future, an updated version of the *Contaminated Land Planning Guidelines* under Part 4 of the *Resilience and Hazards State Environmental Planning Policy*.

To the extent possible, and under the guidance of this project’s steering committee, elements of a draft updated version of the *Contaminated Land Planning Guidelines* have been incorporated into this framework where appropriate. Hence, it is also acknowledged that this framework will need to be updated in the near future to reflect the final updated *Contaminated Land Planning Guidelines*.

**Contents**

Glossary

# Introduction

## What is the Model Contaminated Land Policy?

## Why a model policy on contaminated land?

## How to use the Model Contaminated Land Policy

## Who is to use this model policy

# Setting – regulatory landscape

## Contaminated Land Management Act

## NSW planning system

Protection of the Environment Operations Act 1997

UPSS Regulation 2019

POEO (Waste) Regulation

# Model Policy – purpose

# Model Policy – objectives

Model Policy – scope

Model Policy – references

Model Policy – policy statement

Model Policy – responsibilities

Model Policy – information management

Historical use of land

Contaminated land site register

Planning certificates

Model Policy – planning proposals

Model Policy – development assessment and consent

Initial evaluation

Pre-lodgement meeting

Development assessment and consent

Exempt and complying development

Development assessment and consent – UPSS

Model policy – maintaining compliance with development consent

Category 2 remediation works

UPSS

Model policy – assessment of site contamination

Model policy – site audit

Model policy – other matters

Appendices

**Glossary**

| **Term** | **Definition** |
| --- | --- |
| **Abbreviations** | |
| ARA (appropriate regulatory authority) | Under section 6(3) of the *POEO Act*, Council is declared as the ARA for matters under the UPSS Regulation. |
| PCA (principal certifying authority) | A certifier can be either a council or a registered certifier. A registered certifier is also known as a private certifying authority.  Certifiers have statutory obligations and functions under the *Building and Development Certifiers Act 2018*, the *EP&A Act* and other legislation, including the *Building and Development Certifiers Regulation 2020*. This includes issuing construction and occupation certificates under Part 6 of the *EP&A Act*. |
| UPSS (underground petroleum storage system) | A system of tanks, pipes, valves and other equipment that is designed to either contain petroleum or to control its passage into, out of, through or within the system. The system includes any structure through which petroleum routinely passes from one part of the system to another. |
| **Processes** | |
| Category 1 remediation work | Remediation work that requires the consent of Council under the *Resilience and Hazards SEPP*. |
| Category 2 remediation work | Remediation work not requiring the consent of Council under the *Resilience and Hazards SEPP*. |
| Detailed site investigation | An investigation to define the extent and degree of contamination, to assess the potential risk posed by contaminants to health and the environment, and to obtain sufficient information for developing a remediation action plan if required.  Reporting requirements for a detailed site investigation are as outlined in the *National Environmental Protection (Assessment of Site Contamination) Measure 1999* (amended 2013) and in relevant guidelines made by the EPA regarding reports to be prepared by contaminated land consultants. |
| Independent review | An evaluation by an independent expert, with the appropriate competencies and qualifications, of the work of a primary consultant for all types of contaminated sites. |
| Initial evaluation | A process undertaken by Council to consider the potential for land to be contaminated, and the impacts of that contamination on the suitability of the land for proposed uses, when determining development applications or when preparing environmental planning instruments. |
| Preliminary site investigation | An investigation to identify any past or present potentially contaminating activities; provide a preliminary assessment of site contamination; and, if required, provide a basis for a detailed investigation.  Reporting requirements for a preliminary site investigation are as outlined in the *National Environmental Protection (Assessment of Site Contamination) Measure 1999* (amended 2013) and in relevant guidelines made by the EPA regarding reports to be prepared by contaminated land consultants. |
| Remediation | The remediation of contaminated land is the (i) preparation of an environmental management plan (if required); (ii) removal, dispersal, destruction, reduction, mitigation or containment of the land contamination; and (iii) elimination or reduction of any hazard arising from the land contamination (including by preventing the entry of persons or animals on the land). |
| Remediation action plan | A plan that sets out remediation goals and that documents the proposed process for remediating a site.  Reporting requirements for a remediation action plan are outlined in the relevant guidelines made by the EPA regarding reports to be prepared by contaminated land consultants. |
| Validation | The process of determining whether the objectives for remediation and any conditions of development consent have been achieved.  A report on the validation is to detail the site work undertaken and demonstrate compliance with the remedial action plan for the site, and compliance with the contaminated land planning guidelines and all other applicable regulatory requirements. Reporting requirements for validation are elaborated in the relevant guidelines made by the EPA regarding reports to be prepared by contaminated land consultants. |
| **Terms** | |
| Authorised officer | Authorised officers have regulatory powers and functions under environment protection legislation, as prescribed in Council’s delegations of authority. |
| Complying development certificate | A certificate indicating approval for straightforward residential, commercial and industrial development, generally for building works larger than exempt development. |
| Contaminated land | Contaminated land is typically land that has been used for industrial or agricultural activities or individual sites that store chemicals, such as service stations and dry cleaners  *See also- Appendix 2* |
| Contamination | The presence in or under the land of a substance above the concentration at which the substance is normally present in or under that land at the same locality, being a presence that poses a risk of harm to human health or any other aspect of the environment (section 5 of the *CLM Act*).  *See also* – ‘pollution incident’ |
| Development control plan | Provides detailed planning and design guidelines to support the planning controls in the local environmental plan developed by Council. |
| Environmental management plan | An environmental management plan for contaminated land documents the mitigation measures and/or monitoring requirements where full clean-up of a site is not feasible or where the onsite containment of contamination is proposed. |
| EPA guidelines | Guidelines made or approved by the Environmental Protection Agency (EPA) in relation to managing site contamination. |
| Investigation area | Land declared to be an investigation area by a declaration in force under Part 3 Division 2 of the *CLM Act*. |
| Local environment plan | A plan that guides planning decisions for Council through zoning and development controls. Amendments to the local environment plan are through planning proposals. |
| Newbury test | The Newbury test states that a condition of consent must be imposed for a planning purpose (not an ulterior one); must fairly and reasonably relate to the development that is the subject of the development application; and must not be so unreasonable that no planning authority would have imposed it. |
| Planning proposal | Council may draft a planning proposal to amend a local environment plan and submit it to the department for Gateway determination. |
| Pollution incident | An incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on the premises.  See also – ‘contamination’ |
| Section 10 planning certificates | Formerly section 149 planning certificates.  Section 10 planning certificates provide information regarding the development potential of a parcel of land. There are two types of planning certificates – section 10.7(2) and section 10.7(5).  These certificates show the zoning of the property, its relevant state, regional and local planning controls and other property constraints such as land contamination, level of flooding and bushfire-prone land.  Section 10.7(5) certificates also include advice from ‘other authorities’ and certain information that Council holds on a property that is relevant to the land but is not disclosed in a section 10.7(2) certificate. |
| Sensitive receptor | Receiving environment or sensitive receiver. This is either a use of land for residential, educational, recreational or childcare purposes, or for the purposes of a hospital, or land identified as sensitive environmental land. |

# Introduction

The *Framework for Councils to Manage Contaminated Land* (‘contaminated land framework’) provides Council with an informed basis on which to consider and manage contaminated land in its business processes. It also provides a basis to develop and periodically review its *Contaminated Land Policy*.

The contaminated land framework comprises:

* *Model Contaminated Land Policy* (the ‘model policy’ for Council to adopt as its *Contaminated Land Policy*)
* *Council Guidance on Implementing the Contaminated Land Policy* (this resource)
* *Best Practice Resources* (the resources available to Council for implementing the *Contaminated Land Policy*).

**Figure 1:** Contaminated land management framework for Councils.

Model Policy

Outlines Council's commitment to implement the *Contaminated Land Planning Guidelines*

Becomes the Contaminated Land Policy if adopted by Council

Council Guidance

Council Guidance on Implementing the Contaminated Land Policy

Provides procedural guidance on how Council is to implement the *Contaminated Land Planning Guidelines*

Best Practice Resources

Quick reference guides and fact sheets (and checklists therein) that provide detailed guidance and information on specific processes and procedures relevant to contaminated land management and UPSS

Training material and other resources

The model policy and the *Council Guidance on Implementing the Contaminated Land Policy* were developed by the Riverina and Murray Joint Organisation (RAMJO) and the Riverina Eastern Regional Organisation of Councils (REROC) in collaboration with the Far North West Joint Organisation (FNWJO) and Dubbo Regional Council. Best practice resources were developed through this collaboration, and include resources developed by other CRCB projects.[[1]](#footnote-1)

The collaborative approach to develop the model policy and best practice resources was underpinned by a shared objective to:

* establish a regional framework for the management of contaminated land
* provide a consistent approach for Council to implement the *Contaminated Land Planning Guidelines*[[2]](#footnote-2) in its business processes, in alignment with processes prescribed by the NSW planning system.[[3]](#footnote-3)

The model policy is based on Chapter 4 (‘Remediation of Land’) of the *State Environmental Planning Policy (Resilience and Hazards) 2021* (*Resilience and Hazards SEPP*) and *Managing Land Contamination: Planning Guidelines: SEPP55 – Remediation of Land*[[4]](#footnote-4). Hereafter, these guidelines are referred to as the *Contaminated Land Planning Guidelines* on the basis that:

* at the time of making this model policy
  + *State Environmental Planning Policy No. 55 – Remediation of Land* and its planning guidelines had been consolidated into the *Resilience and Hazards SEPP*[[5]](#footnote-5)
  + the NSW Department of Planning and Environment (DPE) released a draft of an updated *Contaminated Land Planning Guidelines* in 2018
* ‘contaminated land planning guidelines’ is the term used in Schedule 6 of the *Environmental Planning and Assessment Act 1979* (the *EP&A Act*) to describe these planning guidelines.

Council should note that the timeline to finalise the contaminated land framework and its model policy for Councils was prior to the DPE finalising an updated *Contaminated Land Planning Guidelines*. Proposed amendments identified in the draft *Contaminated Land Planning Guidelines* have been included in the *Council Guidance on Implementing the Contaminated Land Policy*, but not in the model policy.

The exceptions are the list of potential land uses and activities that may cause site contamination (Appendix 2 of the model policy) and the considerations regarding site management provisions (Appendix 5 of the model policy).

Council should also note the *Council Guidance on Implementing the Contaminated Land Policy* does not intend to replace the *Contaminated Land Planning Guidelines*. Instead, it seeks to outline processes for Council to manage contaminated land in its decision-making, and in alignment with the model policy that is based on these guidelines.

The RAMJO contaminated land website provides Councils access to the

* model policy
* *Council Guidance on Implementing the Contaminated Land Policy*
* best practice resources including links to resources developed by other CRCB projects
  + includes checklists for Council
* training resources including
  + webinar presentations (and recording of their delivery) and case studies where applicable
  + workshop presentations and case studies
* other useful resources such as links to contaminated land and UPSS regulatory and/or information sites.

## What is the Model Contaminated Land Policy?

The model policy provides a framework for Council to implement the *Contaminated Land Planning Guidelines*. The model policy sets out the processes and requirements that are to be considered by Council to determine the potential for site contamination on land subject to land-use planning or development control process.

The model policy is also a resource for Council to develop and periodically review its *Contaminated Land Policy*.

A *Contaminated Land Policy* is the policy:

* defined in the *Contaminated Land Planning Guidelines.*
* that prescribes how Council will, in good faith, implement the *Contaminated Land Planning Guidelines* in its land-use planning and development control functions, thereby minimising its liabilities under Schedule 6 of the *EP&A Act* in relation to the management of contaminated land in its local government area.
* that, as required by the NSW planning system, guides and informs Council’s consideration of site contamination in decisions on changes in land use and whether land is suitable for its proposed use.

## Why a model policy on contaminated land?

Council acting in good faith with the *Contaminated Land Planning Guidelines* can minimise any liability on Council in relation to any decisions on contaminated land in its land-use planning and development control processes.

## How to use the Model Contaminated Land Policy

Specific clauses of the model policy can be modified by Council prior to its consideration for adoption. A modification can reflect the circumstances and/or processes specific to the local government area. However, a degree of caution is advised so as to not erode Council’s ability to demonstrate that it has acted in good faith with the *Contaminated Land Planning Guidelines*.

The *Council Guidance on Implementing the Contaminated Land Policy* provides information and guidance to Council on implementing the model policy. It also includes references to the best practice resources where detailed information on specific contaminated land and UPSS processes (including checklists) is provided for Council. The *Council Guidance on Implementing the Contaminated Land Policy* also provides the rationale for specific clauses of the model policy by relating requirements of the *Contaminated Land Planning Guidelines* (and best practices) to specific Council business processes.

Finally, the best practice resources provide detailed instructional and procedural information on how to incorporate specific and technical contaminated land management and UPSS processes, procedures and standards in Council business processes. These resources were developed to:

* lift Council capabilities in the planning, preparation and management of regulatory requirements for the management of contaminated land and UPSS in NSW
* enhance the technical capacity of staff in implementing the model policy in Council business processes
* establish a regional framework for the management of contaminated land.

Information to supplement these resources, including a range of webinars and workshops delivered under the RAMJO and REROC CRCB project, useful templates, forms and checklists, can be found elsewhere – for example,the EPA,[[6]](#footnote-6) Local Government NSW[[7]](#footnote-7) and Australasian Convenience and Petroleum Marketers Association[[8]](#footnote-8) websites.

## Who is to use this model policy

The model policy outlines Council commitment to manage contaminated land and UPSS in its business processes. The focus is on the land-use planning and development control processes prescribed by the NSW planning system.

Hence, the model policy (and, as adopted, the *Contaminated Land Policy*) would apply to staff and other relevant internal and external stakeholders involved in land use planning and development control processes – for example, in:

* the preparation and making of a planning instrument, including local strategic planning statements and local environment plans, under Part 3 of the *EP&A Act*
* the preparation and making of a development control plan under Part 3 of the *EP&A Act*
* development assessment and consent under Part 4 of the *EP&A Act*
* environmental impact assessment under Part 5.1 of the *EP&A Act*
* building and subdivision certification under Part 6 of the *EP&A Act*
* the furnishing of contaminated land information required on planning certificates under section 10.7 of the *EP&A Act*
* anything incidental or ancillary to the carrying out of the above processes, which may include Council inspection services; consideration or management of regulatory notices, orders and notifications; as well as associated records management and data and information management.

The model policy also applies to:

* a private certifying authority (PCA)
* consultants (for example, strategic and statutory planning, contaminated land practitioners, underground petroleum storage systems practitioners and so on)
* property developers
* land managers
* contractors providing a land-use planning or development control function on behalf of Council
* members of the public.

It is acknowledged that the policy applies to persons who directly or indirectly participate in Council business processes or who provide a regulatory function (on behalf of Council) in which contaminated land is a consideration.

# Setting – regulatory landscape

The framework for the regulation of contaminated land in NSW comprises the following:

* *CLM Act* and its statutory guidelines made or approved by the EPA, and non-statutory guidelines.
* *EP&A Act* and the *State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2022 (Chapter 4 – Remediation of land)* and its ‘*contaminated land planning guidelines*’
* *Protection of the Environment Operations Act 1997* (‘POEO Act’) and its subordinate legislation.
* Other relevant Acts and subordinate legislation and guidelines.

Table 1 lists legislation related to the management of contaminated land in NSW. The *Contaminated Land Management Act 1997* is the primary legislation in this hierarchy.

**Table 1:** Statewide regulatory framework for the management of contaminated land.

| **Legislation** | **Description** |
| --- | --- |
| *Contaminated Land Management Act 1997* | Administered by the EPA, this Act establishes a process for the EPA to identify, investigate and remediate land that it considers to be contaminated to an extent significant enough to warrant regulation under this Act. |
| *Protection of the Environment Operations Act 1997* | This Act establishes a framework to protect, control and investigate pollution, with the intent to minimise harm to human health and the environment. |
| *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019* | This Regulation sets out the provisions related to the design, installation, operation, maintenance and decommissioning of UPSS tanks1. |
| *Protection of Environment Operations (Waste) Regulation 2014* | This Regulation provides a framework for the handling, storage, transport, processing, recycling and disposal of waste to minimise the harm to human health and the environment. |
| *Local Government Act 1993* | This Act provides the legal framework and sets out the responsibilities and powers of the persons and bodies that constitute the system of local government in NSW. |
| *Workplace Health and Safety Act 2011* | This Act outlines the processes relating to the management of asbestos in the workplace and of hazardous chemicals (dangerous goods) encountered in site remediation operations, such as those from disused UPSS tanks and systems. |
| *Workplace Health and Safety Regulation 2017* | This Regulation includes provisions related to notifying SafeWork NSW when storing, handling or processing hazardous chemicals (dangerous goods) as prescribed in its Schedule 11 and to the decommissioning of UPSS tanks and systems. |
| *Water Management Act 2000* | This Act seeks to promote the sustainable and integrated management of water, including groundwater. Any contamination of groundwater is to be investigated and remediated in accordance with the assessment of site contamination processes as prescribed by the *Contaminated Land Management Act 1997*. |
| *Home Building Act 1989* | This Act includes provisions related to processes for managing loose-fill asbestos in residential buildings, a register of these sites, and notifying Councils. |

Note: UPSS = underground petroleum storage system.

1 ‘Storage system’ is defined as a system of tanks, pipes, valves and other equipment that is designed to either contain petroleum or to control its passage into, out of, through or within the system. The system includes any structure through which petroleum routinely passes from one part of the system to another.

## Contaminated Land Management Act

The *Contaminated Land Management Act* is administered by the NSW EPA. It establishes a process for the EPA to identify, investigate and remediate land that it considers to be contaminated significantly to warrant regulation under this Act.

This Act gives the EPA power to declare land to be 'significantly contaminated land', order a person to undertake a preliminary investigation of land if the EPA suspects it to be contaminated, and order a person to take management actions for significantly contaminated land.

Part 4 of the Act establishes the NSW site auditor scheme. Site auditors can review investigation, remediation, and validation work done by contaminated land consultants. Using site auditors can provide increased certainty in the sign-off of contaminated land assessments and remediation.

Part 5 of the Act sets out information management provisions associated with the administration of this Act (see Table 2).

Section 105 of the Act includes provisions for ‘guidelines’ made or approved by the EPA.[[9]](#footnote-9) The EPA statutory guidelines rely on standards set by the National Environment Protection (Assessment of Site Contamination) Measure 2013 (NEPM-ASC) for the assessment of site contamination.[[10]](#footnote-10)

**Table 2:** Key drivers and concepts presented by the *CLM Act*.

|  |  |
| --- | --- |
| **Key concept** | **Driver** |
| Contaminant concentration  *(NEPM-ASC, EPA statutory guidelines)* | The presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment. (**Section 5 of the *CLM Act***) |
| Risk of harm  *(Source>Pathway>Receptor)* |
| Investigation area | A parcel of land (or part thereof) subject to an investigation to ascertain the nature and extent of site contamination. |
| Significantly contaminated site | To provide a structure for regulation of sites for assessment and remediation. |
| Hierarchy for responsibility for land subject to a process under the *CLM Act* | 1. Polluter, 2. Landowner, and 3. ‘Notional owner’   (**Section 6 of the *CLM Act***) |
| Preliminary investigation order | Direct a person to conduct a preliminary site investigation as specified in the ‘order’ to ascertain the nature and extent of site contamination. (**Section 10 of the *CLM Act***) |
| Management order | Direct a person or public authority to carry out actions specified in the ‘order’ in relation to significantly contaminated land. (**Section 14 of the *CLM Act***) |
| Voluntary management proposal | A person provides the EPA with a proposal to manage significantly contaminated land. (**Section 17 of the *CLM Act***) |
| Ongoing maintenance order | When land that was subject to a management order requires ongoing management action and monitoring. (**section 28 *CLM Act***) |
| Site Auditor Scheme | To improve public access to competent technical advice and provide increased certainty in the sign-off of contaminated land assessments and remediation. (**Part 4 of the *CLM Ac*t**) |
| Statutory guideline[[11]](#footnote-11) | Guidelines made or approved by the EPA for the consistent consideration and management of contaminated land. (**Section 105 of the *CLM Act***). |
| Non-statutory guidance documents[[12]](#footnote-12) | EPA guidance documents on the management of contaminated land. |

Contaminated land not regulated by the EPA under the *Contaminated Land Management Act* is managed by Council in processes under the *Environmental Planning and Assessment Act* (*EP&A Act*).

Table 3 describes the shared responsibilities on the management of contaminated land in NSW, with Council’s responsibilities guided by the *Contaminated Land Planning Guidelines*.

**Table 3:** Shared responsibilities for managing contaminated land in NSW.

|  |  |
| --- | --- |
| **NSW EPA (*CLM Act*)** | **Council (‘*Contaminated Land Planning Guidelines*’)** |
| Regulates significantly contaminated sites posing a risk for its current use and to off-site receptors.  No change in land use is required to trigger regulation of these sites (i.e. ‘current use’).  *(‘significant legacy contamination’)* | Other sites managed through ‘land use planning’ and ‘development control’ functions.  Must consider the potential for land to be contaminated in any process seeking a change in land use.  Focus is remediation requirements triggered by a change in land use setting to a ‘sensitive receptor’.  Manage contaminated land and remediation as part of development. |
| Administers the *CLM Act* in respect to:   * a structure for the EPA to regulate sites for assessment and remediation * establishes a hierarchy for responsibility (polluter, land owner, ‘notional owner’ (financiers)) * extensive and discretionary powers to the EPA to control the process * management of the Site Auditor Scheme * manage public records related to contaminated land. |

The *CLM Act* outlines a process for EPA intervention on contaminated land, including considerations for an investigation to ascertain the nature and extent of site contamination, and, where applicable, remediation of that land if it poses an unacceptable risk of harm to human health and the environment (i.e. ‘significantly’ contaminated).

All other contaminated land is managed by Council in ‘land use planning’ and ‘development control’ processes, in alignment with the *Contaminated Land Planning Guidelines*.

The key considerations for EPA intervention include whether

* the contamination of land has already caused harm to human health and the environment
* the contaminants are toxic, persistent or bio-accumulative, or are present in large quantities or high concentrations or occur in combination
* there are ‘exposure pathways’, and
* adjoining land uses are ‘sensitive receptors’.[[13]](#footnote-13)

Information may be requested by the EPA during the assessment stage to inform it consideration of whether site contamination is significant enough to warrant regulation. This information can be provided by the landowner or from the person operating an activity on land that may have resulted in contamination of that land. The EPA can use notices under section 191 and 193 of the *POEO Act* to obtain this information if not provided voluntarily.

This information would be used by the EPA to make a determination as to whether site contamination warrants regulation under the *CLM Act*, or to seek further information via a ‘**preliminary investigation order**’ that would require the landowner (or the person managing an onsite activity) to undertake investigations in accordance with that order. Information from this investigation would be used by the EPA to determine as to whether land is declared to be significantly contaminated within the meaning of the *CLM Act*. Council would be informed of this declaration, and this notification must be included in Council’s contaminated land site register and records management system.

Landowners of land (or the person managing an activity on that land) subject to this declaration are required to undertake specific actions in regard to investigations to ascertain the nature and extent of site contamination and/or to remediate the land. These actions can be undertaken voluntarily via a ‘**voluntary management proposal**’, or via a ‘**management order**’. As an aside, if land that has been declared to be significantly contaminated is also land subject to an environmental protection licence under the *POEO Act*, then actions set out in the declaration can be regulated through conditions on that licence.

The EPA can revoke the declaration if it is satisfied that the land no longer warrants regulation under the *CLM Act*. However, this does not mean that the site is free of contamination. Further site management or maintenance may be required to manage residual site contamination. Section 28 of the *CLM Act* prescribes the basis for ‘**ongoing maintenance orders**’ that can include active or passive measures. An ‘**environmental management plan**’ can be prepared for the ongoing management of contamination at the site, and this plan may place requirements on Council. Councils need to be aware that compliance to these plans are enforceable.

Implementation of the *CLM Act* is supported by a raft of statutory guidelines[[14]](#footnote-14) and non-statutory guidance documents.[[15]](#footnote-15) These guidelines and non-statutory guidance documents can be relied on by Council when it is managing contaminated land not regulated under the *CLM Act*.

There are specific provisions of the *CLM Act* that require Council to receive information from the NSW EPA on the regulation of site contamination in its local government area (see Table 4). These provisions relate to information on notifications required to be sent by the EPA to Council (or a copy to Council) and contaminated land information required to be furnished on section 10.7 planning certificates under the *EP&A Act*. This information is also important in Council processes to determine the potential for site contamination on land.

**Table 4:** Important contaminated land information required to be provided to Council.

|  |  |
| --- | --- |
| **Clause** | **Provision** |
| *53B(3)(b)* | If a ‘statutory site audit’, then a Site Auditor is to provide Council with a ‘site audit statement’. |
| *58(1)* | The EPA is to maintain a record under section 11 of the *CLM Act* declaring land to be significantly contaminated.[[16]](#footnote-16)  Not all information prescribed under this clause is available in the EPA online ‘Record of Notices’. However, Council can request this information under GIPA or seek this information from the landowner subject to the declaration. |
| *59(1)* | The EPA is to inform Council of:   1. land being declared as significantly contaminated, and when this declaration is revoked, 2. a ‘management order’ served on a land owner, or that this order has been revoked, 3. EPA giving its approval or withdrawing its approval for a ‘voluntary management proposal’, or that this proposal has been completed, and 4. An ‘ongoing maintenance order’ served on a landowner, or this order being revoked. |
| *59(2)7* | Contaminated land information required on section 10.7 ‘planning certificates’ under the *EP&A Act*:   1. If the land (or part thereof) is significantly contaminated, 2. If the land at the time of issuance of the ‘planning certificate’ is subject to a ‘management order’, 3. If the land at the time of issuance of the ‘planning certificate’ is subject to an ‘approved management proposal’, 4. If the land at the time of issuance of the ‘planning certificate’ is subject to an ‘ongoing maintenance order’, and 5. If the land is the subject of a ‘site audit statement’. |
| *59(3)7* | If Council is to include clause 59(2)(a)-(e) information on a section 10.7(5) ‘planning certificate’ under the EP&A Act, Council must make clear if any clause 59(2)(a)-€ still applies to the land subject to the ‘planning certificate’. |
| 60 | ‘Duty to Notify’ provisions. Landowners (including Council) responsible for land contamination are obliged to notify the EPA in accordance with the statutory guideline made by the EPA (‘Guidelines on the duty to report contamination under the *CLM Act*’). [[17]](#footnote-17) |

The *CLM Act* also requires the EPA to publish information online. This information includes:

* sites that are subject to processes under the *CLM Act* (NSW EPA contaminated land record of notices)
* sites that are an ‘investigation area’ within the meaning of the *CLM Act* (NSW EPA list of notified sites).

Information contained in these online databases is very important when Council is undertaking an ‘initial evaluation’ to ascertain the potential for site contamination.

The model policy sets out how information prescribed in Table 4 is to be managed by Council in its corporate systems, including Council’s ‘contaminated land site register’, and how this information can be used in Council’s ‘land use planning’ and ‘development control’ processes.

It must be noted Part 3 of the *CLM Act* outlines specific requirements on Council in a regulatory process to manage contaminated land when triggered, including:

* Council may be directed by the EPA by ‘notice in writing’ if a person fails to comply with any requirement of an ‘order’ issued under Part 3 of the *CLM Act*, to carry the requirement of that ‘order’. Council is permitted to recover costs associated with fulfilling requirements of the ‘order’, and
* If Council has been issued an ‘order’ by the EPA under Part 3 of the *CLM Act*, then Council must carry out the requirements of that ‘order’.

## NSW planning system

Table 5 provides information on components of the NSW planning system that are relevant to Council in managing contaminated land in its local government area. A change or proposed change in land use is the key trigger for Council to consider the potential for site contamination.

The *EP&A Act* is the primary legislation in this hierarchy. The key planning functions of Council prescribed by this Act are:

* land-use planning, in the making of a planning instrument and the making of a development control plan (Part 3)
* development control, in relation to
  + development assessment and consent (Part 4)
  + environmental impact assessment (Part 5)
  + building and subdivision certification (Part 6)
* furnishing of contaminated land information required on planning certificates under section 10.7.

**Table 5:** Overview of the NSW planning system and its functions relevant to contaminated land

| **Planning system** | | **Description** |
| --- | --- | --- |
| *Environmental Planning and Assessment Act 1979* | | Establishes the framework for the NSW planning system and sets out how planning instruments and the rules affecting development are made and how development is assessed against these rules.  Contaminated land not regulated by the NSW Environment Protection Authority under the *Contaminated Land Management Act 1997* is managed by Council in processes under the *Environmental Planning and Assessment Act 1979*. |
| *Environmental Planning and Assessment Regulation 2021* | | Further elaborates certain processes prescribed by the *Environmental Planning and Assessment Act 1979*, including:   * making a planning instrument * determining development applications * modifying development consent * determining an application for a complying development certificate * infrastructure and environmental impact assessment * information required on planning certificates. |
| Planning instruments | Local strategic planning statement (statutory) | Local strategic planning statements made by Council:   * set out how regional and district plans are to be implemented in the local government area * identify the planning priorities for the local government area (including those from the community strategic plan prepared under local government legislation) * outline how the implementation of these priorities is to be monitored and reported * shape how development controls in Council’s local environment plan evolve over time to meet the community’s needs * can provide an upper-level statement on how Council will manage actual or potential site contamination in ‘development control’ processes, in accordance with Council’s *Contaminated Land Policy*. |
| Environmental planning instruments (statutory) | Environmental planning instruments introduce controls and requirements for specific issues and places within the local government area. There are two types:   * state environmental planning policies, which deal with issues of importance across NSW, including   + *State Environmental Planning Policy – Resilience and Hazards* – Chapter 4 – Remediation of Land5 is the key SEPP for Council in relation to managing contaminated land. Guidance on implementing this SEPP is set out in the ‘Contaminated Land Planning Guidelines’.6   + *State Environmental Planning Policy – Exempt and Complying Development Codes* was recently updated to include provisions on how ‘unexpected finds’ related to contaminated land are to be managed. * local environment plans, which guide Council’s planning decisions through zoning and development controls. These can   + provide an upper-level statement on how Council will manage actual or potential site contamination in ‘development control’ processes, in accordance with Council’s *Contaminated Land Policy*, or   + identify land on which historical uses of land has or may have resulted in site contamination, and put in place measures that flag and provide information on actual or potential site contamination to be managed in a ‘development control’ process, in accordance with Council’s *Contaminated Land Policy*   Local Planning Direction 4.4[[18]](#footnote-18) requires a report on a ‘preliminary site investigation’ to be attached to a ‘planning proposal’ if:   * there are gaps in the knowledge of the historical use of the land proposed for rezoning, and * the proposed uses permitted under the rezoning involve a ‘sensitive receptor’. |
| Development control plan (non-statutory) | In development control plans, Council sets out specific and more detailed design and planning requirements.  Council may include its contaminated land policy as an appendix to the DCP. Council may also consider a chapter in its DCP on contaminated land management in lieu of a contaminated land policy. |

**Protection of the Environment Operations Act 1997**

The *POEO Act* establishes a framework to protect, control and investigate pollution. The model policy has an objective to ensure a proposed change in land use or an approved use of land does not increase the risk of harm to human health and the environment.

The management of pollution (including waste) in NSW is a shared responsibility between the EPA and Council (see Table 6).

**Table 6**: Shared responsibility in the management of pollution (and waste) in NSW.

|  |  |
| --- | --- |
| **EPA** | **Council** |
| Is the appropriate regulatory authority (‘ARA’) for activities under Schedule 1 of the POEO Act. | The ARA for non-scheduled activities under the POEO Act.  The exception is where Council is undertaking a schedule 1 activity, then the EPA is the ARA |
| Regulation of scheduled activities is done under the Environment Protection Licence (‘EPL’).  Management of contamination can occur under an Environment Protection Licence. | Primarily concerned with small business, domestic premises, urban planning, and UPSS. |

The model policy includes provisions for Council to identify and manage any potential risk of harm associated with a proposed or an approved use of land. These provisions pertain to Council’s ‘development control’ process, with a particular focus on ‘development consent’ for new or significantly modified UPSS, and Council processes to confirm a UPSS site maintains compliance with ‘development consent’.

This is in alignment with Council’s ‘appropriate regulatory authority’ (‘ARA’) responsibilities under the *Underground Petroleum Storage Systems Regulation 2019* (‘UPSS Regulation’).

More broadly, the *POEO Act* includes provisions that can be used by Council to manage a pollution incident, and with the intent to minimise site contamination from this incident and thereby minimise the risk of harm to human health and the environment (e.g. manage a fuel leak at a retail fuel service station).

Contaminated land is defined in section 5 of the *CLM Act* to mean:

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

Whereas a ‘pollution incident’ is defined by the *POEO Act* to mean:

*“an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises…”*

Contamination of land requires the presence of a contaminant, whereas a pollution incident is the actual or likelihood of pollution occurring. The latter is not strictly speaking contaminated land, but a pollution incident may result in site contamination, particularly if the pollution incident is allowed to occur over a period of time.

Council is the ARA for non-scheduled activities prescribed under this Act that occur in their local government area. Council is also the ARA under the UPSS Regulation. Thereby Council is required to ensure UPSS are designed, installed, operated, maintained and decommissioned in accordance with the UPSS Regulation and the specified Australian Standards, and that these sites maintain compliance with this Regulation (and with Development Consent).

The *POEO Act* provides Council with powers and functions to enforce the regulation of pollution, including the power to investigate, powers of entry and search of premises, and powers to require information or records. These powers and functions are available to Council to manage pollution in the broader context of managing the risk of site contamination if a pollution incident is allowed to occur over time. This has a particular emphasis on managing the site contamination risk associated with the operation of retail fuel service stations.

The *POEO Act* includes provisions (section 192 and section 193) that can be used by Council to request information and/or records, and provisions (section 91 and section 96) relating to ‘clean up’ and ‘prevention’ notices, respectively. These provisions allow Council to take steps to confirm the potential of site contamination, and, if found, to then provide directions to the land owner to manage the site contamination (see Table 7).

**Table 7**: POEO notices and requests for information and records

|  |  |
| --- | --- |
| **Section** | **Provision** |
| *91* | Council ‘authorised officer’ can issue a ‘clean-up’ notice in writing on a person responsible for an activity that has resulted in site contamination. This ‘notice’ would set out requirements of the clean-up actions, and a time for which this action is to be undertaken. |
| *96* | Council ‘authorised officer’ can issue a ‘preventative notice’ in writing on a person responsible for an activity which is being carried on in an ‘environmentally unsatisfactory manner’. This ‘notice’ would set out actions to be undertaken to ensure the activity is carried out in an environmentally satisfactory manner. |
| *192* | Council can request information or records from a person responsible for an activity for which Council is discharging its ARA responsibilities. |
| *193* | Council ‘authorised officer’ can request information or records from a person responsible for an activity for which Council is discharging its ARA responsibilities. |

Council can also issue ‘penalty notices’ when it reasonably suspects that an activity has been or is being carried on in an environmentally unsatisfactorily manner.

The EPA may step in if the pollution arising from such an activity warrants regulation. This may involve regulation of the site under the *POEO Act* (‘prevention notice’ and/or ‘clean-up’ notice’) or under the *CLM Act* (initially as an ‘investigation area’, and potentially as ‘significantly contaminated land’).

The POEO framework comprises a raft of subordinate legislation. The following are relied on by Council in managing pollution and site contamination.

*UPSS Regulation 2019*

The UPSS Regulation sets out provisions related to the design, installation, operation, maintenance and decommissioning of UPSS storage systems. [[19]](#footnote-19)

While these provisions may not directly relate to managing contaminated land, they are important in Council development control processes to prevent pollution from an approved use of land, and to minimise the risk of harm to human health and the environment associated with a pollution incident from an approved use of land that may over time result in site contamination if remain undetected. Council has an important role to ensure UPSS are designed, installed, operated and maintained in accordance with the UPSS Regulation.

The UPSS Regulation provides a framework for Council to:

* Incorporate pollution prevention measures in ‘development consent’ to manage the risk of pollution from UPSS.
* Use development control processes to ensure UPSS sites maintain compliance with the UPSS Regulation and with Development Consent.
* Issue ‘notices’ and penalties under the *POEO Act* if a pollution incident has increased the risk of harm to human health and the environment.

The specific requirements of the UPSS Regulation are listed in Table 8. These largely relate to the design, installation, operation, maintenance and decommissioning of UPSS. Specific guidance on the requirements of each is provided in the best practice resource listed in Appendix 1 of the model policy (‘Council ARA responsibilities and UPSS systems’).

Triggers for this process include

* a proposed new UPSS
* a proposed ‘significant modification’ of existing UPSS
* Council providing direction to a person responsible for UPSS on how to comply with the UPSS Regulation provisions.

**Table 8**: Council ARA responsibilities under the UPSS Regulation

|  |  |
| --- | --- |
| **Section** | **Provision** |
| *4* | Identify the ‘person responsible’ for the ‘storage system’, whether the system is in ‘pre-commissioning’, ‘operational’, or is ‘not in use’ but not ‘decommissioned’'. |
| *5* | Storage systems that are exempt from the Regulation include   * ‘aboveground tanks’ * a sump, separator, stormwater or wastewater collection system, catchment basin, pit, septic tank, or other like structure (unless petroleum routinely passes through the structure) * a bunded tank situated below ground level but not in the ground (i.e. situated in a basement, cellar or tunnel), and * a liquified petroleum gas storage system |
| *Part 2* | Commissioning of storage system |
| Division 1 | New storage system |
| 6 | * designed by a ‘duly qualified person’,[[20]](#footnote-20) and * the ‘person responsible’ has been provided with required documentation (industry standards, design specifications). |
| 7 | * Installed by a ‘duly qualified person’, and * the ‘person responsible’ has been provided with required documentation (industry standards, installation specifications and ‘as-built’ drawings for the system). |
| 8 | * Equipped with equipment required by Australian Standard 4897–2008,[[21]](#footnote-21) and * a ‘leak detection’ system is installed in accordance with Part 3 of the UPSS Regulation. |
| *9* | A ‘storage system’ can be commissioned if the system has passed ‘equipment integrity tests’ (‘certified’). |
| *Division 2* | Modification of storage system. |
| *10-13* | As per Division 1, clauses 6-9 |
| *Division 3* | Repair of storage systems |
| *14* | A ‘storage system’ can be commissioned if the identified leak has been repaired and the storage system has been ‘certified’ after equipment integrity testing. |
| *Part 3* | Leak detection system |
| *15* | * A storage system cannot operate unless a ‘leak detection’ system is installed (groundwater monitoring wells or an ‘alternative leak detection system). * Number of and location of groundwater monitoring wells must be designed by a ‘duly qualified person’. * An alternative leak detection system must be endorsed by a ‘duly qualified person’. |
| *Part 4* | Use of storage system |
| *18* | A site cannot operate UPSS infrastructure (storage systems) unless a complete and up-to-date ‘fuel system operation plan’ has been developed and is available onsite. |
| *19* | All measuring instruments associated with loss monitoring and leak detection are checked and maintained. |
| *20* | Groundwater is to be tested (sampled and analysed) at least once every 6 months in accordance with instructions from the ‘duly qualified person’ or no later than 60 days after detecting a leak. |
| *21* | If loss monitoring identifies a potential leak, the discrepancy is to be investigated, and if the leak is confirmed action must be taken to fix the leak. |
| *Part 5* | Records and notifications in relation to a ‘significant modification’, decommissioning, and an incident log. |
| *Part 7* | Miscellaneous |
| *29* | Granting of an exemption by Council to a provision(s) of the UPSS Regulation. |

Even though the ‘exemption’ provisions are included in clause 29, it is a carry-over from the previous iteration of the Regulation (2014). The EPA (in its ARA capacity under the *UPSS Regulation 2014*) approved ‘exemptions’ for numerous sites so as to provide a person responsible for UPSS time to comply with specific requirements of the *UPSS Regulation 2014*.

Currently, it is considered best practice for Council to not grant new exemptions or to extend existing ‘exemptions’ from one or more provisions of the *UPSS Regulation 2019*. Thereby ‘exemptions’ should no longer be a consideration for Council, and Council may elect to work closely with these UPSS sites on a pathway to achieve compliance.

The exception would be a scenario in which the person responsible can demonstrate how an alternative to a specific provision will not increase the risk of harm to human health and the environment.

Implementation of the UPSS Regulation is supported by:

* the *EPA Guidelines for implementing the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019* [[22]](#footnote-22)
* other documents specified in clause 30(2) of the UPSS Regulation
* guidance material and forms.[[23]](#footnote-23)

Council consideration of provisions in the UPSS Regulation in its development control processes is elaborated in greater detail in the best practice resource identified in Appendix 1 of the model policy (Council ARA responsibilities and UPSS systems). This includes the design, installation, operation, maintenance and decommissioning of UPSS infrastructure.

*POEO (Waste) Regulation*

Contaminants in soil can be managed either ‘on-site’ under the *CLM Act* or ‘off-site’ under the waste framework under the *POEO Act*.

Triggers for the consideration of the contamination potential of soil are outlined in Table 9. These are elaborated further in the relevant best practice resources identified in Appendix 1 of the model policy.

**Table 9:** Off-site management of contaminants in soil.

|  |  |
| --- | --- |
| **Activity** | **Examples** |
| Waste classification | Virgin excavated natural material to be used as in-fill at development works sites. |
| Off-site management of waste generated from the remediation of a contaminated site |
| Land application of soil that may contain soil contaminants |
| Illegal dumping of waste (asbestos, pollutants, etc.) |
| Asbestos[[24]](#footnote-24) | Asbestos contamination of soil arising after structure fire and/or degradation of structure over time. |
| Transportation of waste | Waste transported off-site to a licenced or an EPA-approved (non-licenced) waste management facility |
| Waste transported off-site for beneficial reuse |

# Model Policy – purpose

|  |
| --- |
| The purpose of this policy is to establish a framework that outlines how Council will act in good faith with the *Contaminated Land Planning Guidelines* when considering the potential of site contamination on land in land-use planning and development control decision-making processes. |

Inferred by this purpose are:

* The model policy (and the overarching contaminated land framework) is consistent with the *Contaminated Land Planning Guidelines* under Chapter 4 of the *Resilience and Hazards SEPP*
* by embedding the *Contaminated Land Planning Guidelines* in its business processes, Council can demonstrate it has “acted substantially” in accordance with these guidelines
* Council, Council staff and Council’s stakeholders are aware of obligations and responsibilities in regards to managing contaminated land in their local government area.

# Model Policy – objectives

|  |
| --- |
| This policy aims to   1. enable Council to consider the likelihood of land contamination as early as possible in land-use planning and development control processes 2. avoid any inappropriate restrictions on land use 3. ensure a proposed change in land use or any development will not increase the risk of harm to human health and the environment 4. ensure any contaminant is remediated to a level that complies with relevant contamination criteria as required by regulation, thereby ensuring the land is suitable for its intended use 5. enable Council to provide accurate and timely information and advice to inform and support decision-making in land-use planning and development control processes 6. enable the community to be informed of Council’s requirements regarding the management of contaminated land 7. enable Council to exercise its land-use planning and development control functions with a reasonable standard of care and diligence. |

The objectives of the model policy set out Council’s commitment to implementing the *Contaminated Land Planning Guidelines*.

*Objective 1*Council will consider the potential of land contamination on land in its land use planning and development control processes. For this undertaking, Council will consider this potential early in these processes.

Conversely, not identifying land contamination early in its business processes may not only lead to delays in these processes, it may also delay cleaning up and the regulation of contaminated sites, and may increase costs for the landowner/occupier. This objective is also relevant when Council is the applicant.

*Objective 2*The model policy sets out a process that seeks to obviate the need for Council to place a restriction on land due to contamination. This objective encourages Council to identify measures (including an assessment of site contamination) to identify whether the land can be made suitable for its proposed use through remediation, and to ensure site contamination does not increase risk of harm to human health and the environment.

*Objective 3*The model policy sets out how Council should consider in its land use planning and development control processes whether land poses an increased risk of harm to human health and the environment due to its potential or actual site contamination. This is in alignment with the *Contaminated Land Planning Guidelines*, as required by Schedule 6 of the *EP&A Act* (‘good faith’ defence).

The model policy seeks Council to minimise this risk by ensuring the land is suitable (or can be made suitable) for its intended use. Further, the model policy also seeks Council to minimise this risk in a proposed change in land use to a use listed in Appendix A in the *Contaminated Land Planning Guidelines*. These land uses (i.e. activities) are known to result in site contamination hence Council can manage the risk of future legacy site contamination through Development Consent.

*Objective 4*The model policy sets out how Council is to ensure land is suitable for its proposed use, and to determine this through site investigations and remediation works where applicable. This process draws in statutory guidelines under the *Contaminated Land Management Act*.

*Objective 5 and 6*The model policy provides a process to manage contaminated land data and information in Council’s corporate systems, including its contaminated land site register.

Information on contaminated land maintained by these systems can be used by Council to inform its decision-making in land use planning and development control processes. This includes information on contaminated land required to be furnished on Section 10.7 planning certificates under the EP&A Act, as well as information to inform Council’s decision-making on regulatory inspection or education programs (e.g. underground petroleum storage systems, category 2 remediation works, etc).

*Objective 7*The model policy sets out a process for Council to manage contaminated land in a transparent manner, and in alignment with the *Contaminated Land Planning Guidelines* and relevant Council policies and procedures.

**Model Policy – scope**The intent of this section is to identify the relevant stakeholders for the model policy, and define land in the local government area to which the model policy applies.

**Model Policy – references**This section lists potential Council policies and procedures that relate to the implementation of the model policy. It is not an exhaustive list so Council can select and/or add to this list as appropriate.

This section also identifies legislation, guidelines and standards that are drawn into the model policy. These relate to the statewide framework to manage contaminated land and UPSS in NSW.

**Model Policy – policy statement**The policy statement speaks to a responsibility of Council to ensure decisions on land use and changes in land-use do not increase risk of harm.

**Model Policy – responsibilities**The model policy identifies key Council business processes to which the model policy applies.

**Model Policy – information management**Information and data management underpins the key objectives of the model policy. Best practice information and data management ensures Council has the required information to make decisions in its land use planning and development control processes, including in a process to determine the potential for site contamination. Thereby Council can demonstrate that it has “acted substantially” in accordance with the *Contaminated Land Planning Guidelines*.

Council in its capacity as a ‘planning authority’ is responsible for land use planning and development control in its local government area. At the heart of this responsibility is a process to determine if land is suitable or can be made suitable for its proposed use.

This process requires Council to consider the likelihood of site contamination when a change in land use is proposed. This also extends to a responsibility to ensure that a proposed use of land does not increase risk of harm to human health and the environment (i.e. Development Consent can stipulate conditions to minimise pollution from an approved activity and minimise the risk of ‘legacy contamination’ site).

Council should endeavour to maintain and update its corporate IT systems with contaminated land and UPSS information and data. Additional information on this process is provided in the next sections and is also illustrated in Figure 2. Figure 2 illustrates the relationship between the contaminated land site register with other Council corporate systems, and the flow of artefacts between these systems.

**Figure 2:** Best practice contaminated land information and data management.

**EPA Notifications**

CLM Act notices

POEO Act Notices

**ASC Reports**

PSI, DSI

RAP, VR, EMP

Site / independent audit

**UPSS**

Design, FSOP

Completed survey form

Leak notifications

**Information & Data**

SafeWork NSW

NSW Fair Trading

Category 2 notices

Asbestos

**Artefacts received by Council**



CLSR

**Council corporate IT systems**

PIS

EDRMS

GIS

UPSS





Section 10 planning certificates from PIS

‘Initial evaluation’ of the potential for site contamination

Completed checklists (ASC, UPSS, etc)

Completed inspection forms (category 2, UPSS, site inspection)

UPSS (completed survey form, Council’s risk assessment, completed inspection form, completed UPSS Plan)

Duty to Notify

**Artefacts generated by Council**

**Maintain & Update Procedure**

Planning information system (**PIS**) updated with flags identified in ‘planning proposal’

Contaminated land site register (**CLSR**) updated with

consultant reports on the assessment of site contamination (preliminary site investigation, detailed site investigation)

Consultant reports on Remediation Action Plan and Validation Report

Report on the independent review or statutory audit

CLM Act notifications

Status of site contamination

List of potential contaminated sites (including findings from ‘initial evaluation’)

Completed checklists (ASC, ‘initial evaluations’, and new UPSS sites)

**UPSS Register** with data on UPSS sites from SafeWork NSW, NSW Fair Trading and Development Applications, and update records with outcomes of inspections and completed checklists

**GIS** (or Council mapping system) updated with site contamination data and information

Electronic document and record management system (**EDRMS**) with all artefacts received or generated by Council in relation to contaminated land and UPSS

**Procedures to maintain and update Council’s corporate IT systems**

**Historical use of land**

The historical use of land and whether the proposed use of that land involves a ‘sensitive receptor’ are the key considerations for an ‘initial evaluation’ by Council to assess the suitability of land for its proposed use. These considerations should also extend to adjacent land.

If a historical use of land or of adjacent land was an activity listed in Appendix A of the model policy, then this would need to be evaluated further by Council. If the historical use cannot be determined by Council with any degree of certainty, then this could be a trigger for a preliminary site investigation to ascertain whether there is potential for site contamination. Moreover, if the proposed use of that land (or the approved use of adjacent land) involves a ‘sensitive receptor’, then Council can recommend a preliminary site investigation.

Table 10 lists sources of data and information on historical use of land that Council can obtain for an ‘initial evaluation’. A ‘sensitive receptor’ is defined as either residential, educational, recreational, childcare or hospital, and land which has significant environmental value.

**Table 10:** Historical information and data sources

|  |  |
| --- | --- |
| **Source** | **Considerations** |
| Council records | Old paper files or electronic records in Council’s records management system. These records can include (not exhaustive list):   * EPA notifications under the *CLM Act* * Consultant reports on the assessment of site contamination * ‘Initial evaluations’ (or previous examinations) undertaken by Council staff, including complete site inspection forms from site walkover * Council trade waste agreements * Completed inspection forms (category 2 remediation works sites, UPSS, site inspection, etc.) * Regulatory notices * Historical aerial images |
| Council registers | ‘Contaminated Land Site Register’ that lists contaminated sites in the local government area. This register may also include sites that are suspected to be potentially contaminated based on its historical use.  ‘UPSS Register’ that lists former and current UPSS sites (including retail fuel service stations) in the local government area. |
| NSW EPA databases | ‘Record of Notices’ issued under the *CLM Act*.[[25]](#footnote-25)  ‘List of Notified Sites’ subject to an investigation in response to a received notification.[[26]](#footnote-26)  List of sites subject to a POEO Environment Protection Licence.[[27]](#footnote-27)  NSW Section 35 notices, past and present scheduled premises, unhealthy building land |
| NSW Fair Trading | Loose-fill asbestos insulation register.[[28]](#footnote-28)  List of retail service stations within Council local government area (by postcode). |
| SafeWork NSW | List of historical and current UPSS within Council local government area regulated under schedule 11 of the *Work Health and Safety Regulation 2017* (by postcode). |
| Council staff | Corporate knowledge in Council staff is an important resource. |
| Historical societies | Historical societies are a good resource as they can have a wealth of knowledge (including photos) on historical uses of land in your local government area. |
| Special interest groups | There are special interest websites that provide historical information and photos (e.g. old service stations dating back to the 1920s). |
| Consultants | There are specific professional services available to Council to research historical land use. This is the costliest source of historical land use data. |

**Contaminated land site register**

The contaminated land site register is an important repository of information on potential and actual contaminated land in the local government area. This register in some cases can be supported by a UPSS Register that lists all known or former UPSS sites within the local government area.

The contaminated land site register is a repository of contaminated land (and UPSS) information and data for Council to draw on when:

* including contaminated land information required to be placed on section 10.7 panning certificates under the *EP&A Act*
* determining the historical use of land for an ‘initial evaluation’
* determining whether the land is suitable for its proposed use
* developing conditions of consent.

The contaminated land site register should be maintained and updated by Council with information, data and artefacts obtained from any process identified in the model policy. Figure 2 identifies the key data and information that should be included in Council’s contaminated land site register.

The register should be maintained and updated by Council when it is engaged in a contaminated land or UPSS process identified in the model policy. This can include

* completed ‘initial evaluations’ for planning proposals or development assessment and consent processes, including completed site inspection form from site walkover
* consultant reports on the assessment of site contamination, as well as completed corresponding checklists
* site audit reports or site audit statement
* reports related to the assessment of site contamination process for category 2 remediation works, which may include a ‘remediation action plan’, a ‘validation report’ or any other report and/or correspondence (including notification) related to these works
* EPA notifications under the *CLM Act*, including any technical report specified in the notification
* ‘clean-up’, ‘preventative’ and ‘prohibition’ notices issued by Council or the EPA to a landowner under the *POEO Act* in relation to a pollution incident
* any notification sent by Council to the EPA under section 60 of the *CLM Act* (‘duty to notify’)
* completed UPSS inspection form
* response by a person responsible for UPSS at a UPSS site to Council’s UPSS survey
* information and records requested by Council under section 192 or 193 of the *POEO Act* in relation to UPSS infrastructure
* EPA online databases (‘record of notices issued under the *CLM Act*’ and ‘list of notified sites’)
* a SafeWork NSW notification on the decommissioning of UPSS under the *Work Health and Safety Regulation*
* periodic data requests sent by Council to
  + SafeWork NSW to obtain an updated list of licenced UPSS tanks under schedule 11 of the *Work Health and Safety Regulation* in the local government area
  + NSW Fair Trading to obtain a list of registered retail fuel service stations in the local government area
* NSW Fair Trading loose fill asbestos notification.

**Planning certificates**

Contaminated land information required on section 10.7 planning certificates under the *EP&A Act* are those identified in section 6.3 of the model policy.

For section 10.7(2) planning certificates, Council is to include the following information:

* whether any adopted Council policy restricts the development of land subject to the planning certificate if Council knows or reasonably
* information prescribed by section 59(2) of the *CLM Act*
* whether the land was or remains the subject of a preliminary investigation order under section 10(1)(a)–(b) of the *CLM Act*
* whether the land is a remediation site
* information on the potential of contamination of the land subject to the planning certificate due to its historical or current use.

Appendix 4 of the model policy provides ‘**annotations**’ on the potential of site contamination that Council can consider to include on planning certificates. These ‘annotations’ are provided under the context of schedule 6 of the *EP&A Act* in regards to Council demonstrating that it has acted in good faith with the *Contaminated Land Planning Guidelines*.

For section 10.7(5) planning certificates, Council may include the following information:

* report(s) possessed by Council and identified in Appendix 3 of the model policy relating to the assessment or regulation of site contamination of that land or adjacent land
* a statement that the site has been assessed and/or remediated
* a statement that any person relying on the certificate is advised to consider these artefacts and to seek Council’s advice regarding further development of the site.

**Model Policy – planning proposals**

The early identification of the potential for site contamination is a key objective of the *model policy*. Hence identifying this potential is of importance in land use planning processes (see Figure 3).

The *Local Planning Direction 4.4* directs Council to include a report on a preliminary site investigation with a planning proposal for land

1. that involves a change in land use to a sensitive receptor
2. whose historical land use has not been fully identified.

Council should also consider the historical and current use of adjacent land in this assessment.

A report on the ‘preliminary site investigation’ may identify that there is potential for site contamination, or that a further investigation is required to delineate the nature and extent of any site contamination. The report may also identify that there is no potential for site contamination.

**Figure 3:** Decision-tree for planning proposals

Preparation of a planning proposal

**Local Planning Direction 4.4**



Council initial evaluation

**Initial evaluation form, site inspection form**



Is a PSI required?



Proceed to determination

PSI provided to Council

**PSI checklist.**

**Selecting a consultant Fact Sheet**



Is land suitable for its proposed use?



Further investigation required

**Optional independent review of PSI**



LEP and/or DCP are updated (and corporate planning systems

**Update CLSR**

The decision-tree for planning proposals includes 2 important decision points. These are described further in the table. There is also a third latent decision point attached to the ‘further investigation required’. Table 11 describes these points.

**Table 11:** Important decisions in the planning proposal process regarding contaminated land.

|  |  |  |
| --- | --- | --- |
| Decision | Considerations | Best Practice Resources |
| Is a PSI required? | Local Planning Direction 4.4 establishes the two key triggers (historical use of land and sensitive receptors) for a PSI report to be lodged with a planning proposal. | Guide to selecting a consultant fact sheet. |
| Council can use the initial evaluation form to ascertain whether there is potential for site contamination, and to identify permissible uses under the proposed zoning. Adjacent land should be included in the evaluation. | Initial evaluation form.  Site inspection form (for site walkover). |
| Is land suitable for its proposed use? | The PSI report will provide findings on whether there is potential for site contamination. | PSI checklist. |
| This report may also find that a further investigation is required (a detailed site Investigation) is required to determine whether  land is suitable for uses permitted in the proposed zone. | Guide to selecting a consultant fact sheet.  *Is there a duty to notify?* |
| Council can require the PSI report to be independently reviewed. | Guide to selecting a consultant fact sheet. |
| Detailed site investigation | Council may require the DSI to be undertaken (including remediation) prior to lodging the planning proposal | Assessment of Site Contamination Reports resource. |
| Alternatively, Council can ensure mechanisms are in place to ensure further investigation and/or remediation occurs before development of the land. These mechanisms can include flags in the LEP or DCP, and updating the planning information system and contaminated land site register. |

**Model Policy – development assessment and consent**

The *model policy* requires Council to consider land contamination in subdivision and development applications, particularly when a change in land use is proposed. This is in alignment with section 4.15(1)(c) of the EP&A and this requires Council to ensure that contaminated land

* is suitable for its proposed use in its contaminated state
* can be made suitable for its proposed use through remediation
* presents no increased risk of harm to human health and the environment.

Council is required to manage this requirement in the development assessment and consent process. This process includes a number of steps including:

1. initial evaluation
2. pre-lodgement meeting
3. development assessment and consent

**Initial evaluation**

The key requirement of Council is to confirm whether there is adequate information available to it to conclude that a preliminary site investigation is not required and land is suitable for proposed use.

An initial evaluation will indicate to Council whether there is potential for site contamination. This evaluation should be supported by a site walkover with observations recorded in the ‘site inspection’ form. Council will need to inform the applicant of a requirement for a preliminary site investigation if the evaluation found that there is a potential for site contamination.

The initial evaluation will draw-in information from a range of sources (see Table 10), and should also consider adjacent land. The historical use of adjacent land is an important consideration as contamination on this land may have migrated onto the land subject to a proposed development application.

**Pre-lodgement meeting**

Findings of the initial evaluation will determine what guidance is provided to the applicant in relation to the potential of site contamination, and steps required to manage this potential contamination.

If the initial evaluation identified one or more ‘flags’, then it is prudent of Council to advise the applicant to undertake a preliminary site investigation to ascertain the potential for site contamination.

This advice may extend to the steps required if preliminary site investigation recommended further investigation, or it found that the site is contaminated, and options to incorporate these into the development assessment and consent process. Options could include:

1. require the applicant to include in the ‘statement of environmental effects’ a report on the preliminary site investigation confirming the site is not contaminated and is suitable for its proposed use
   1. this would already be available if the land was subject to a planning proposal
   2. Council would require the report on the PSI to be updated if it was prepared more than 2 years prior
2. If the PSI report has a finding that further investigation is required to determine whether the site is contaminated (i.e. a detailed site investigation), then Council can advise the applicant that it will require either:
   1. the statement of environmental effects’ to include the report on the detailed site investigation, a remediation action plan, and a validation report, or
   2. the assessment of site contamination process and site remediation requirements will be stipulated in development consent, with development works to be conditional on a validation report confirming the objectives of the remediation action plan have been met and a statement that the land is suitable for its proposed use.

Council should also inform the applicant of its requirements regarding the assessment of site contamination process. This advice can be developed drawing on information and guidance material provided in relevant best practice resources including:

* Assessment of site contamination reports quick reference guide and its checklists
* Selecting a consultant fact sheet
* Managing offsite transport of soil
* Asbestos and development control processes.

**Development assessment and consent**

The *model policy* outlines a process for development assessment and consent in accordance with the *Contaminated Land Planning Guidelines*. These guidelines require Council to not grant consent to development unless:

* it has considered whether the land is contaminated (initial evaluation)
* if the land is found to be contaminated, then Council must be satisfied that the land is suitable in its contaminated state or will be made suitable following remediation for its proposed use (remediation action plan or environmental management plan)
* if the land requires remediation to be made suitable for its proposed use, then Council must be satisfied that the land will be remediated before the land is used for its proposed use (validation report).

As noted already, how Council manages these requirements in their development assessment and consent process is in accordance with their own procedures. Council could seek the assessment of site contamination process to be undertaken prior to lodgement of the development application, with the required reports on the assessment of site contamination and the validation report provided in the ‘statement of environmental effects’.

Alternatively, Council could stipulate in development consent the steps of the assessment of site contamination process. Thereby it would require provision of these reports prior to issuance of the construction or the subdivision works certificate for the approved development works. Under this pathway provision of the reports would be staggered prior to commencement of approved development works.

The model policy also provides a Site Management Plan (appendix 5) that can be included in development consent in relation to development works associated with remediation of contaminated land. The intent of this plan is to minimise the risk of harm of remediation works to human health and the environment.

Council may include a condition in development consent that prescribes the required competencies and qualifications of consultants that are to undertake an assessment of site contamination, and prepare reports on this assessment. Council may also include a condition requiring these reports to be independently reviewed (i.e. subject to an audit’), and prescribe the accreditation or certification requirements of this person.

The Hunter Joint Organisation has recently updated its *Register of Contaminated Land Consent Conditions* (2023).[[29]](#footnote-29) This is a valuable resource for Council to identify and manage risks associated with contaminated land in development consent.

*Exempt and complying development*

Development consent can also stipulate required actions when site contamination (or potential site contamination) is encountered during development works. This also extends to development work on land subject to a complying development certificate, if land contamination is detected or reasonably suspected, then Council would require

* all development work immediately cease
* Council and the EPA be notified of the potential contamination
* the notification be sent by the PCA or by the person who issued the complying development certificate.

**Development assessment and consent – UPSS**

Council is designated by the *UPSS Regulation 2019* as the ‘appropriate regulatory authority’ (ARA) on UPSS. Council is thereby required to ensure that UPSS are designed, installed, operated, maintained and decommissioned in accordance with the UPSS Regulation, as stipulated in development consent.

Council also needs to ensure UPSS sites maintain compliance with the UPSS Regulation and with development consent (see maintaining compliance with development consent section).

A development application can be lodged with Council for

* a new UPSS site (e.g. service station, fuel depot), or
* development works at a current UPSS site that seeks to significantly modify UPSS.

Any modification of UPSS that seeks to modify more than 50% of the UPSS system is deemed to be a ‘significant modification’. A significant modification requires consent of Council. The exception is for UPSS that is owned or managed by Council, or managed by a third-party on behalf of Council. In this instance the NSW EPA is the ARA.

The requirements of the development assessment and consent process and related checklists can be viewed in the *UPSS and Council ARA Responsibilities* best practice resource.

Key considerations for Council on UPSS in the development assessment and consent process are outlined in Table 12.

**Table 12:** UPSS and development assessment and consent.

|  |  |  |
| --- | --- | --- |
| Process | Requirement | Best Practice Resources |
| Pre-lodgement | Communicate specific requirements of the development application in regard to the design, installation, operation, maintenance and decommissioning of UPSS, and the requirement to use a ‘duly qualified person’. | *UPSS and Council ARA Responsibilities* resource and its checklists  *Guide to Retail Service Station Owners on Managing UPSS Systems* resource  NSW EPA *Guidelines for Implementing the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019*  NSW EPA decommissioning fact sheet  NSW EPA practice note – managing run-off from service station forecourts |
| DA Assessment | Development application has the information required by the UPSS Regulation.  *Note: Council may elect to link a number of these requirements to the certification process (see development consent row below).* |
| Development Consent | Prior to issuance of a **construction certificate**, provide Council with design specifications for UPSS (new or significantly modified) prepared by a ‘duly qualified person’. | *UPSS and Council ARA Responsibilities* resource and its checklists |
| Prior to issuance of an **occupation certificate**, provide Council with ‘works as executed plans’ related to the installation of new or significantly modified underground petroleum storage systems by a ‘duly qualified person’, and a copy of the fuel system operation plan that has been prepared in accordance with the UPSS Regulation. | *UPSS and Council ARA Responsibilities* resource and its checklists  *Guide to Retail Service Station Owners on Managing UPSS Systems* resource |
| Council requirements relating to decommissioning including notifying SafeWork NSW, managing contaminated soil, and disposal of UPSS.  *Note: ideally Council would require the removal of decommissioned tanks, where practical.* | NSW EPA decommissioning fact sheet  *Managing offsite transport of soil* resource |

**Model policy – maintaining compliance with development consent**

Development consent can include contaminated land and UPSS conditions. These conditions may need to be monitored by Council to ensure compliance with development consent.

These conditions can relate to the assessment of site contamination process and reports thereon, provisions contained in a Site Management Plan for the development works site, a remediation action plan, a validation report, and to the use of suitably qualified consultants. An inspection to monitor compliance during development works may be undertaken by Council.

Development consent can include specific conditions on the assessment of site contamination. A key component of the assessment process is a validation report that states that the objectives of the remediation action plan have been met. It should also state that the land has been remediated to a level suitable for its proposed use.

Council may elect to independently review the validation report. The *Selecting a Consultant* fact sheet provides guidance on the competencies and qualifications required for this independent review (‘audit’).

This validation report (and any other report on the assessment of site contamination) must be kept in Council records for future reference in land use planning and development control processes.

**Category 2 remediation works**

A validation report will also be provided to Council for category 2 remediation works that do not require consent of Council. However, Council may include a condition requiring the validation report to be provided prior to issuance of construction work.

Council is required to be notified of any category 2 remediation works. Council may elect to use this notification to communicate requirements of these works, including those specific to the provisions of the Site Management Plan attached to the model policy. Hence Council may also inspect these works to confirm compliance with these provisions.

**UPSS**

Development consent for new or significantly modified UPSS will include specific conditions related to the operation and maintenance of UPSS. Procedures related to the operation and maintenance of UPSS are required to be included in the fuel system operation plan (FSOP) for the site.

These requirements exist for all operational UPSS sites within Council’s local government area. The exception is those sites that commenced operations prior to 1 June 2008. However, if these sites undertake a significant modification of its UPSS after 1 June 2008 they are then required to comply with the UPSS Regulation.

Council may elect to develop and implement a UPSS inspection and monitoring program for its local government area. Key steps and considerations of this plan are in Table 13 below. While the UPSS Regulation does not require Council to inspect UPSS sites, these sites are required to maintain compliance with the UPSS Regulation.

**Table 13:** Establishing a UPSS inspection and monitoring program

|  |  |  |
| --- | --- | --- |
|  | Actions | Best Practice Resources |
| Information and data management | * Update and maintain a UPSS Register * Survey UPSS sites at least once every 2 years * Obtain updated information from SafeWork NSW and NSW Fair Trading * Inspect UPSS sites * Store all UPSS and assessment of site contamination related records in Council’s corporate IT systems including contaminated land site register | Council ARA responsibilities and UPSS |
| Education | Work cooperatively with UPSS owners to achieve compliance. Action plans recommended with agreed activities and timelines.  Sites that do not have a fuel system operation plan are required to cease operations immediately. | *Guide to Retail Service Station Owners on Managing UPSS Systems* |
| Compliance assessment | Derive a compliance risk rating for a UPSS site from an assessment of responses to the UPSS survey:   * Age of tanks * Method of loss monitoring * Method of leak detection * FSOP in place   Compliance risk rating: high, medium or low | Council ARA responsibilities and UPSS  UPSS Plan template (see Appendix 3) |
| Detailed risk assessment | Derive an overall risk rating of a UPSS site using the risk-based tool. UPSS sites subjected to the detailed risk assessment are those with a compliance risk rating of ‘high’.  Risk parameters include:   * Vapour intrusion * Drinking water guidelines * Ecological degradation   Overall risk rating of each site to be recorded in the UPSS Register, and included in the UPSS Plan. Rating is very high, high, medium or low.  Use the UPSS Plan to determine a service delivery model and schedule for a UPSS inspection and monitoring program based on a risk-based approach. | Council ARA responsibilities and UPSS  Risk-based assessment tool (Excel)  UPSS Plan |
| Inspections | Notify the UPSS site of Council’s intent to inspect the premises.  The UPSS inspection form can be attached to the notification.  Record outcomes of the inspection on the UPSS Register or in the contaminated land site register in-lieu of UPSS Register).  Develop Action Plan for compliance in consultation with UPSS owner. | *Guide to Retail Service Station Owners on Managing UPSS Systems*  Training videos on the planning, preparation and undertaking a UPSS inspection (see RAMJO contaminated land website) |

**Model policy – assessment of site contamination**

The *National Environment Protection (Assessment if Site Contamination) Measure 1999* is the overarching framework for the assessment of site contamination in Australia.

The *NEPM-ASC* is a legal instrument that provides a national risk-based framework for the assessment of site contamination.[[30]](#footnote-30) The framework aims to provide adequate protection of human health and the environment where site contamination has occurred (see Table 14).

The *NEPM-ASC* is applicable to regulators (including Council), consultants undertaking site assessments and audits, land owners, developers and industry.

Table 14: Key drivers and concepts provided by the NEPM-ASC.

|  |  |
| --- | --- |
| Key concept | Driver |
| National framework for the assessment of site contamination (and risk-based guidelines) | To establish a nationally consistent approach to the assessment of site contamination to ensure sound environmental management practices by the community which includes regulators, site assessors, environmental auditors, landowners, developers and industry. |
| Conceptual site model | To describe a site including the environmental setting, geological, hydrogeological and soil characteristics together with the nature and distribution of contaminants. Potentially exposed populations and exposure pathways are identified. Presentation is usually graphical or tabular with accompanying explanatory text. |
| Land use settings | Low density residential (HIL A)  High density residential (HIL B)  Public open space (HIL C)  Commercial/industrial (HIL D) |
| Health investigation levels (HILs) | To establish national investigation and screening levels for commonly encountered contaminants for generic land use settings (‘Tier 1 criteria’). |
| Tier 1 assessment | An initial screening of data to determine whether further assessment is required. Site analytical data is compared with generic investigation levels and/or screening levels for protection of human health and the environment to decide if further investigation is required. |
| Tier 2 and 3 assessments | To derive human health and ecological site-specific investigation criteria on the basis of site information. Undertaken when contaminant concentration exceeds generic Tier 1 assessment criteria, when assessment criteria is not available for certain contaminants, or when uncertainties. |
| Ecological investigation levels (EILs) | To derive investigation and screening levels for the protection of terrestrial ecosystems. |
| Preliminary site investigation and initial assessment | To consider the possibility of all forms of potential contamination based on historical land use, and includes development of the ‘Conceptual Site Model’. |
| Detailed site investigation | When contamination could not be completely delineated by the preliminary site investigation and initial assessment. |

The *NEPM-ASC* has a policy framework which is supported by two schedules:

* Schedule A – flowchart of recommended site assessment process, and
* Schedule B – technical guidelines.

It must be noted that the *NEPM-ASC* does not provide guidance on the clean-up or management of contaminated sites.

Council may not directly engage with the *NEPM-ASC* in its ‘land use planning’ and ‘development control’ processes. However, these processes do rely on reports prepared by consultants on an assessment of site contamination. Council will require these reports to be prepared in accordance with the *NEPM-ASC*, as prescribed by EPA statutory guidelines under the *CLM Act*.

A report prepared by a consultant on an assessment of site contamination will provide findings on the risk of contamination to human health and the environment. The national health-based ‘standards’ for determining the risk of contamination to human health and the environment (Tier 1 criteria’) defined by the *NEPM-ASC* are the basis of this assessment. The *NEPM-ASC* also prescribes ‘Tier 2’ and ‘Tier 3’ criteria which is the derivation of human health and ecological site-specific investigation criteria on the basis of site information like soil characteristics.

These standards are based on a scientific understanding of the substances and their interactions with the environment, and include ‘health investigation levels’ (‘HILs’), and ‘ecological investigation levels’ (‘EILs’). Soil, soil vapour and groundwater criteria are applied in an evaluation of the potential risks of site contamination to human health and the environment.

HILs are provided for a range of contaminants that trigger a need for further investigation. Hence HILs will vary according to:

* Contaminant (e.g. inorganics, hydrocarbons, organics including chlorinated substances, pesticides and herbicides), and
* Land use including ‘sensitive receptors’.

HILs have been developed for:

* Low density residential land with accessible gardens (‘HIL A’),
* High density residential land with minimal opportunity for soil access (‘HIL B’),
* Public open space (‘HIL C’), and
* Commercial and industrial (‘HIL D’).

The *NEPM-ASC* recommends a staged approach to site investigations. This approach will obtain site information necessary for development and update of a ‘conceptual site model’ (‘CSM’), and enable planning for subsequent scope of work.

The staged approach to site investigations is defined by the *NEPM-ASC* to comprise:

* Preliminary site investigation and initial assessment to consider the possibility of all forms of potential contamination based on historical land use, and includes development of the CSM. Consists of a desktop study, a detailed site inspection and interviews with relevant stakeholders, and may include limited sampling and analysis. Information obtained in this stage of the investigation is used to develop the initial CSM, and
* Detailed site investigation when contamination could not be completely delineated by the preliminary site investigation and initial assessment, thereby unable to provide site management strategies. It includes a ‘sampling and analysis quality plan’ and ‘data quality objectives’, and results of the investigation are to indicate contamination which require further delineation or management including a ‘human health and environmental risk assessment’.

The *NEPM-ASC* provides a raft of general guidelines in support of a process to assess site contamination including (*inter-alia*):

* ‘Investigation levels’ for soil and groundwater (Schedule B1),
* ‘Soil characterisation’ (Schedule B2),
* ‘Health risk assessment’ (Schedule B4), including ‘health-based investigation levels’ (‘HILs’), and
* ‘Ecological risk assessment’ (Schedule B5) including ‘ecological investigation levels’ (‘EILs’),

A staged approach in the assessment of site contamination process means Council can focus on a site’s most critical issues in a prioritised and defensible manner to address unacceptable risks. This approach is outlined in Table 15. Further elaboration of these stages is provided in the ‘Assessment of site contamination reports’ best practice resource. This resource also provides ‘checklists’ that can be used by Council to ensure reports are complete and have the required information.

**Table 15:** The site contamination reporting framework

|  |  |  |
| --- | --- | --- |
| Stage | Assessment Type | Description |
| Desktop | Preliminary site investigation (PSI) | An initial assessment to identify potential contamination risks for a site.  Involves reviewing historical records, conducting site inspections, and gathering available data to determine if further investigation is warranted.  The PSI helps in determining the need for a Detailed Site Investigation. |
| Sampling assessment | Detailed site investigation (DSI) | The DSI aims to characterize the nature and extent of contamination on the site.  It involves a more comprehensive investigation, including soil and groundwater sampling, laboratory analysis, and potentially other testing methods.  The DSI provides detailed information about the types and concentrations of contaminants present, as well as their distribution within the site |
| Site specific risk assessment | Human Health Risk Assessment:   * evaluates potential risks to human health from a contaminated site * considers exposure pathways and data on contaminant concentrations and toxicity * determines the need for remediation and risk management measures.   Ecological Site Assessment:   * assesses contamination impacts on the ecosystem and wildlife * considers ecological receptors' sensitivity and site-specific data on contaminants * guides remediation and management strategies for environmental protection. |
| Remediation action plan (RAP) | The RAP outlines the strategies and actions required to remediate the contaminated site.  It includes a detailed plan for removing, treating, or managing the contaminants based on the site-specific conditions, risk assessment results, and regulatory requirements.  The RAP may also involve measures to mitigate ongoing risks during the remediation process. |
| Action | Site remediation and validation | Remediation stage involves implementing actions outlined in the Remedial Action Plan (RAP).  Remediation may include excavation, removal of contaminated soil, groundwater treatment, containment measures, and other appropriate techniques.  Verification process conducted post-remediation to ensure cleanup objectives are met and the site is suitable for intended use.  Understanding potential harm from contamination is crucial.  Substances like solvents, oils, older pesticides, heavy metals, and industrial wastes can pose risks to human health and the environment.  Land contamination is often invisible, emphasizing the importance of comprehending risks and taking appropriate measures for management. |
| Environmental management plan | Document outlining strategies, procedures, and actions for environmental impact management.  Systematic approach to identify, prevent, minimise, and monitor potential environmental risks.  Objectives: identify and assess impacts, minimise negative effects, ensure compliance, promote sustainability.  Components: legal framework, project description, objectives, management procedures, roles/responsibilities, monitoring/reporting, emergency response, stakeholder engagement, training, review/improvement.  Benefits: compliance, risk reduction, sustainability, transparency, stakeholder engagement.  Importance: Guides environmental management, proactive risk mitigation, informed decision making, goal achievement, sustainability commitment. |

Council will rely on reports prepared by consultants on the assessment of site contamination in land use planning and in development control processes. Guidance on the use of consultants and on how Council can interpret and use these reports can be found in best practice resources listed in Appendix 3. These include

* a guide to selecting a consultant, and
* assessment of site contamination reports that includes detailed information and checklists for each step of the assessment of site contamination process.

The ‘*Guide to selecting a consultant*’ also includes important guidance on the use of ‘site auditors’ and on the ‘independent review’ or reports provided to Council on the assessment of site contamination.

**Model policy – site audit**

The model policy outlines circumstances when Council may elect for an independent review (‘audit’) of a report on the assessment of site contamination. This is when Council

* reasonably suspects that information provided by the applicant is incorrect or incomplete
* needs to verify that information provided by the applicant adheres to appropriate standards, procedures and guidelines
* does not have the capacity to technically review reports on the assessment of site contamination.

Council can use the relevant checklist attached to the *Assessment of Site Contamination Reports* (quick reference guide) to identify whether an independent review is required.

The model policy also identifies when a statutory site is required. A statutory site audit is required only when there is a requirement to demonstrate compliance with:

* a requirement under the *CLM Act*
* an approved voluntary management proposal
* a requirement imposed by at least one of the following
  + the *CLM Act*
  + the *Resilience and Hazards SEPP*
  + the *EP&A Act* (that is, development consent or any other approval under this Act)
  + any other requirement imposed by or under a relevant Act.

Council in most cases will only require an independent review (‘audit’) of reports that it receives, and only in specific circumstances already identified. It is an increasing practice for Councils to request that any report on an assessment of site contamination be certified by a certified environmental practitioner.

Council should always ensure that it selects a competent and suitably qualified consultant to undertake the ‘independent review’ (see *Guide to Selecting a Consultant* fact sheet).

Certification schemes have been developed to ensure a standard of quality in the contaminated land management industry. NSW EPA currently recognises 2 certification schemes in relation to contaminated land:

* Environment Institute of Australia and New Zealand – Certified Environmental Practitioner (Site Contamination) (CEnvP (SC))
* Soil Science Australia – Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM)

NSW EPA requires the use of CEnvP–accredited consultants to prepare the reports of site contamination assessments for sites regulated by the EPA (that is, for significant contaminated sites regulated under the *CLM Act*).

The benefit to Council of an independent review (‘audit’) of a report on the assessment of site contamination include

* independent and objective assessment
* compliance with regulations
* expertise and experience
* effective risk management
* enhanced stakeholder confidence
* legal protection

**Model policy – other matters**

The model policy outlines Council’s commitment to

* ‘Duty to notify’ under section 60 of the *CLM Act*
* Manage community or public land (or part thereof) that is under Council’s control or management so as to not increase risk of harm to human health and the environment
* Ensure consultants with the appropriate competencies, qualifications and experience are used in preparing, reviewing and/or audit of reports on the assessment of site contamination, and in the design and installation of UPSS.

**Duty to notify (h2)**

The EPA’s *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997* (2015) provides guidance to landowners (including Council) on determining whether there is a duty to report contamination under section 60 the *CLM Act*.

Section 60 identifies who is responsible for reporting contamination to the EPA and this lies with:

* a person whose activities have contaminated the land
* the owner of land that has been contaminated, whether the contamination was before or during that owner's ownership of the land

The responsibility to notify is only triggered when specific technical criteria identified in section 60(2) of the *CLM Act* are met. The **potential for the contaminant to spread** and the **concentration of the contaminant** are important criteria to consider in any decision to ascertain whether the duty to report contamination has been triggered.

It would be best practice to engage the services of a certified environmental consultant to inform Council’s decision on whether to notify. This person can provide guidance on whether the contamination exceeds criteria in approved guidelines (e.g. NEPM-ASC, NSW EPA statutory guidelines), and whether the contamination has migrated off-site.

The Hunter Joint Organisation has also prepared specific guidance for Councils on the duty to notify on contaminated land. This can be accessed on their website ([Duty-to-Report-Contamination-Full.pdf (hunterjo.com.au)](https://www.hunterjo.com.au/wp-content/uploads/2020/11/Duty-to-Report-Contamination-Full.pdf)).

The duty to notify provision under the *CLM Act* must not be confused with the Part 5.7 POEO notification on pollution incidents, including pollution incidents associated with leakages from UPSS (‘**leak notification form**’).

Council, who is the ARA under the UPSS Regulation, is required to be notified by the ‘person responsible’ for UPSS of any leakage from the UPSS system. However, if Council is the owner of the UPSS, or it is managed on behalf of Council, then the leak notification is to be prepared by Council and sent to the EPA.

If this leakage has been allowed to continue over a period of time then it is highly possible it has resulted in site contamination. If Council is the owner of the UPSS, or it is managed on behalf of Council, then council may need to consider whether it is required to notify the EPA under section 60 of the *CLM Act* (i.e. ‘duty to notify’).

**Public land (h2)**

Council has control of or is responsible for public land in their local government area. If Council suspects that this land is potentially contaminated, then it would manage this potential contamination in accordance with the model policy so as to not increase the risk of harm to human health and the environment.

The potential of site contamination on public land is an emerging matter for Councils (i.e. ‘**site legacy contamination**’). A case-in-point is the increasing detection of abandoned UPSS tanks in the road reserve, particularly under footpaths. Council may elect to manage site contamination processes in accordance with the model policy, and this can be a costly proposition. Council may also seek to investigate the historical use of that land to attribute ownership of these tanks to a third party who had been granted approval for the operation of UPSS on that land. This is a difficult and complex process and Council at a minimum should seek legal advice.

**Use of consultants (h2)**

Council acting in ‘good faith’ with the *Contaminated Land Planning Guidelines* requires informed decisions on site contamination in ‘land use planning’ and ‘development control’ processes. These decisions can be informed by reports on the assessment of site contamination, thereby Council should obtain a degree of confidence in these reports by:

* ensuring the report is prepared by a consultant with the required competencies and qualifications
* using the process ‘checklists’ provided in the *Assessment of Site Contamination Reports* best practice resource
* seeking an independent review (‘audit’) of this report if there is any doubt in its coverage, findings, conclusion and/or recommendations.

Detailed information on the requirements of consultants is provided in the ‘*Guide to Selecting a Consultant*’ fact sheet.

**Appendices**

*Note: Some appendices are not attached to this resource but instead can be viewed or downloaded from the RAMJO contaminated land website (*[*www.ramjo.nsw.gov.au/contaminated-land*](http://www.ramjo.nsw.gov.au/contaminated-land)*).*

|  |  |  |
| --- | --- | --- |
| # | Appendix | Location |
| 1 | Initial evaluation form | RAMJO website ([www.ramjo.nsw.gov.au/contaminated-land](http://www.ramjo.nsw.gov.au/contaminated-land))  PDF and MSWord |
| 2 | Standard conditions of consent | Hunter Joint Organisation website (<https://www.hunterjo.com.au/wp-content/uploads/2022/05/Register-of-Contaminated-Land-Consent-Conditions.pdf>) |
| 3 | List of best practice resources |  |

**Appendix 3 – List of best practice resources**

These resources are available on the RAMJO contaminated land website.

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Resource** | **Process** | **Author** |
| 1 | **CLF – Model Contaminated Land Policy** | All | RAMJO, REROC, FNWJO, Dubbo Regional Council |
| 1.1 | (1) – Appendix 2 - Potential land uses and activities that may cause site contamination | All |  |
| 1.2 | (1) – Appendix 4 – Annotations for section 10.7 planning certificates | Planning certificates |  |
| 1.3 | (1) – Appendix 5 – Site management provisions for remediation works | Conditions of consent; category 2 remediation works |  |
| 2 | **CLF – Council guidance on implementing the Model Contaminated Land Policy** | All |  |
| 2.1 | (2) – Appendix 1 – initial evaluation | Planning proposal; Development assessment and consent | Based on DPE *draft contaminated land planning guidelines (2018)* |
| 3.3.4 | (3.3.4) – Appendix D – Site inspection checklist | Inspection checklist for initial evaluation walkover | Developed by Northern River Contaminated Land Program and Far north West JO |
| 2.2 | (2) – Appendix 2 – Standard conditions of consent | Development assessment and consent | Hunter Joint Organisation |
| 2.3 | (2.3) – Appendix 3 – List of related best practice resources |  |  |
| 2.3.1 | (2.3.1) – Environmental compliance and self-evaluation survey (ECSES) | UPSS monitoring – survey of UPSS sites | Based on NSW EPA form |
| 2.3.2 | (2.3.2) – Risk-based tool | Detailed risk assessment of UPSS sites | Developed by Golder & Associates for RAMJO and REROC |
| 2.3.3 | (2.3.3) – UPSS Plan | Council UPSS inspection and monitoring program |
| 2.3.3.1 | (2.3.3.1) – Appendix 1 – UPSS compliance SoP | Council workflow in respect of UPSS inspection and monitoring |  |
| 2.3.3.2 | (2.3.3.2) – Appendix 2 – Vulnerability assessment – Hay Shire Council |  | Golder & Associates |
| 3.6.1 | (3.6.1) – Table 4 – FSOP checklist | UPSS monitoring; development assessment and consent |  |
| 3.6.9 | (3.6.9) – Appendix A – Fuel system operation plan user guide | Developed by Northern River Contaminated Land Program |
| 3.6.10 | (3.6.10) – UPSS inspection form | UPSS monitoring | Based on NSW EPA form |
| 2.3.4 | (2.3.4) – User guide for the UPSS Register | Information management (DBA-specific) | Developed by Northern Rivers Contaminated Land Project |
| **3.0** | **Best practice resources** |  |  |
| **3.1** | **CLF – BPR – (3.1) Assessment of site contamination reports** |  | RAMJO, REROC, FNWJO, Dubbo Regional Council, Northern Rivers Contaminated Land Project |
| 3.1.1 | Appendix 1 – PSI report checklist | Assessment of site contamination |  |
| 3.1.2 | Appendix 2 – DSI report checklist |  |
| 3.1.3 | Appendix 3 – RAP report checklist |  |
| 3.1.4 | Appendix 4 – VR report checklist |  |
| 3.1.5 | Appendix 5 – CSM report checklist |  |
| 3.1.6 | Appendix 8 – Contamination report checklist | Developed by Northern Rivers Contaminated Land Project |
| **3.2** | **CLF - BPR - (3.2) Managing offsite transport of soil** |  | Northern Rivers Contaminated Land Project, FNWJO |
| 3.2.1 | Appendix A – Checklist for waste going to licenced waste facility | Development assessment and consent; monitoring of conditions of consent |  |
| 3.2.2 | Appendix B – Checklist for waste prior to transported offsite for beneficial re-use |  |  |
| 3.2.3 | Appendix C – Resource recovery exemptions and potential offsite re-uses |  |  |
| 3.2.4 | Appendix D – Virgin excavated natural material (VENM) classification |  |  |
| 3.2.5 | Appendix E – Section 143 (POEO) notice |  |  |
| 3.2.6 | Appendix F – Section 143 (POEO) notice form for landowners |  |  |
| 3.2.7 | Appendix G – Letter to landowner to receive surplus material |  |  |
| **3.3** | **CLF – BPR – (3.3) Managing asbestos in development control processes** | Asbestos | Developed by Far North West Joint Organisation |
| 3.3.1 | Appendix A – Asbestos management decision tree for Councils | Development assessment and consent; waste management |  |
| 3.3.2 | Appendix B – Quick reference guide for asbestos contamination |  |
| 3.3.3 | Appendix C – Asbestos related scenarios |  |
| 3.3.4 | Appendix D – Site inspection checklist | Developed by Northern River Contaminated Land Program and FNWJO |
| 3.3.5 | Appendix E – Types of asbestos licences |  |
| 3.3.6 | Appendix F – SafeWork NSW asbestos demolition checklist |  |
| 3.3.7 | Appendix G – Asbestos and house fires |  |
| 3.3.8 | Appendix H – Asbestos contacts |  |
| **3.4** | **CLF - BPR - (3.4) A guide to selecting a consultant** | All | Northern Rivers Contaminated Land Management Project |
| **3.5** | **CLF - BPR - (3.5) A guide to retail service station owners on managing UPSS systems** | UPSS education | Updated version of a retired EPA artefact |
| 3.5.1 | Leak notification form |  | Based on EPA form |
| **3.6** | **CLF - BPR - (3.6) UPSS systems and Council ARA responsibilities** | ‘Development control’ processes | RAMJO, REROC, FNWJO |
| 3.6.1 | Table 4 – FSOP checklist | Development assessment and consent; UPSS monitoring |  |
| 3.6.2 | Table 5 – Design principles for new or modified UPSS |  |
| 3.6.3 | Table 6 – Groundwater monitoring wells checklist |  |
| 3.6.4 | Table 8 – Groundwater monitoring report checklist |  |
| 3.6.5 | Table 9 – UPSS loss monitoring checklist |  |
| 3.6.6 | Table 10 – Forecourt design and stormwater management checklist |  |
| 3.6.7 | Table 11 – UPSS leak notification form checklist |  |
| 3.6.8 | Table 12 – UPSS exemption checklist |  |
| 3.6.9 | Appendix A – Fuel system operation plan user guide | Developed by Northern River Contaminated Land Program |
| 3.6.10 | Appendix B – UPSS inspection form |  |
| 3.6.11 | Appendix C – UPSS development assessment and consent checklist |  |
| 3.6.12 | Appendix D – UPSS minimum standards checklist |  |

1. RAMJO, REROC, Dubbo Regional Council and FNWJO delivered a CRCB grant project to their participating Councils. [↑](#footnote-ref-1)
2. These guidelines, *Managing Land Contamination: Planning Guidelines: SEPP55 – Remediation of Land*,are currently under review by the Department of Planning and Environment, and it is anticipated these will be amended at some point in the near future. [↑](#footnote-ref-2)
3. <https://www.parliament.nsw.gov.au/news/Pages/The-NSW-planning-system.aspx> and <https://www.planning.nsw.gov.au/Assess-and-Regulate/Development-Assessment/Your-guide-to-the-DA-process/Getting-started/The-planning-system> [↑](#footnote-ref-3)
4. <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/clm/managing-contaminated-land-guidelines-remediation.pdf> [↑](#footnote-ref-4)
5. The content of Chapter 4 of the *Resilience and Hazards SEPP* was formerly *State Environmental Planning Policy No. 55 – Remediation of Land*. [↑](#footnote-ref-5)
6. The NSW EPA website has useful information and resources for Council on managing processes related to assessing the nature and extent of site contamination, as well as to remediating contaminated sites and managing underground petroleum storage systems. Prior to the *Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2019* coming into effect, the EPA was the appropriate regulatory authority under the *Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2008*. [↑](#footnote-ref-6)
7. The Local Government NSW website has useful resources for Council on managing asbestos (a source of site contamination). [↑](#footnote-ref-7)
8. The Australasian Convenience and Petroleum Marketers Association website contains useful information for retail service station owners on managing underground petroleum storage systems and for Councils on its National Petroleum Contractor Recognition Scheme. [↑](#footnote-ref-8)
9. <https://www.epa.nsw.gov.au/your-environment/contaminated-land/statutory-guidelines> [↑](#footnote-ref-9)
10. <https://www.nepc.gov.au/nepms/assessment-site-contamination> [↑](#footnote-ref-10)
11. <https://www.epa.nsw.gov.au/your-environment/contaminated-land/statutory-guidelines> [↑](#footnote-ref-11)
12. <https://www.epa.nsw.gov.au/your-environment/contaminated-land/non-statutory-guidance-documents> [↑](#footnote-ref-12)
13. A ‘sensitive receptor’ is defined as either residential, educational, recreational, childcare or hospital, and land which has significant environmental value. [↑](#footnote-ref-13)
14. <https://www.epa.nsw.gov.au/your-environment/contaminated-land/statutory-guidelines> [↑](#footnote-ref-14)
15. <https://www.epa.nsw.gov.au/your-environment/contaminated-land/non-statutory-guidance-documents> [↑](#footnote-ref-15)
16. This is the EPA ‘Record of Notices’ (<https://www.epa.nsw.gov.au/your-environment/contaminated-land/notified-and-regulated-contaminated-land/record-of-notices#:~:text=The%20EPA%20triggers%20assessment%20and,through%20the%20record%20of%20notices.>) [↑](#footnote-ref-16)
17. <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/clm/150164-report-land-contamination-guidelines.pdf?la=en&hash=E9BD6F84997BDF578AB9C21C1D5EB63407647A0F> [↑](#footnote-ref-17)
18. <https://www.planning.nsw.gov.au/-/media/Files/DPE/Directions/Ministerial-Directions-commenced-on-1-March-2022.pdf?la=en> [↑](#footnote-ref-18)
19. ‘Storage system’ is defined as a system of tanks, pipes, valves and other equipment that is designed to contain petroleum, or control into, out of, through or within the system, and includes any structure through which petroleum routinely passes from one part of the system to another. [↑](#footnote-ref-19)
20. ‘Duly qualified person’ is a person who has competence and experience and is recognised by a peak body in the relevant industry, or recognised generally in the relevant industry [↑](#footnote-ref-20)
21. AS 4897–2008: The design, installation and operation of underground petroleum storage systems [↑](#footnote-ref-21)
22. <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/contaminated-land/20p2700-underground-petroleum-storage-systems-guidelines.pdf?la=en&hash=FDB1D11DB26BF5465985C0340A5E83DCC333AE00> [↑](#footnote-ref-22)
23. <https://www.epa.nsw.gov.au/your-environment/contaminated-land/upss/resources-for-implementing-upss> [↑](#footnote-ref-23)
24. Council should rely on processes and procedures prescribed in their Asbestos Management Policy. [↑](#footnote-ref-24)
25. <https://www.epa.nsw.gov.au/your-environment/contaminated-land/notified-and-regulated-contaminated-land/record-of-notices> [↑](#footnote-ref-25)
26. <https://www.epa.nsw.gov.au/your-environment/contaminated-land/notified-and-regulated-contaminated-land/list-of-notified-sites> [↑](#footnote-ref-26)
27. <https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers> [↑](#footnote-ref-27)
28. <https://www.fairtrading.nsw.gov.au/housing-and-property/loose-fill-asbestos-insulation/public-register-of-affected-properties> [↑](#footnote-ref-28)
29. <https://www.hunterjo.com.au/wp-content/uploads/2022/05/Register-of-Contaminated-Land-Consent-Conditions.pdf> [↑](#footnote-ref-29)
30. <https://www.legislation.gov.au/Details/F2013C00288> [↑](#footnote-ref-30)