

INTERNATIONAL COMMITTEE ON CONTAMINATED LAND

QUESTIONNAIRE ABOUT LEGAL FRAMEWORK FOR SOIL/SITE CONTAMINATION MANAGEMENT

COUNTRY: [Australia](#)

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OVERALL CONTEXT

1. Does your national policy have a specific definition of “contaminated site”, “contaminated soil”? If yes, please provide the definition.

Yes **Contamination** means the condition of land or water where any chemical substance or waste has been added as a direct or indirect result of human activity at above background level and represents, or potentially represents, an adverse health or environmental impact.

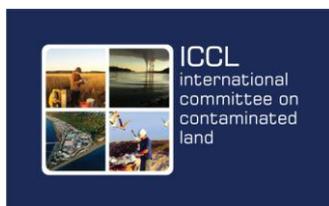
2. Is Groundwater included in this definition? [yes](#)
3. Does your policy on contaminated sites/land/soil include other definitions (i.e. brownfield, sediment)? [No, but it does note that sediment should be considered as a specialist area.](#)
4. Which sources are you considering? Industrial operations? Transport? Urban contamination? Etc. [all sources of contamination although some jurisdictions in Australia \(ie NSW\) will manage contamination associated with mine sites differently](#)

LEGAL FRAMEWOK

5. Does your country have legislation with respect to contaminated land management?
[Australia does not have specific Commonwealth legislation addressing management of contaminated land although there are elements of the Environment Protection Biodiversity and Conservation Act 1999 \(EPBC Act\) that are relevant: \[www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/\]\(http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/\). There is a National Environment Protection \(Assessment of Site Contamination\) Measure that is proclaimed and is adopted by each State and Territory to provide guidance on the assessment of contamination. Each State and Territory has legislation that determines the requirements for remediation and management of pollution; this is not covered in the NEPM.](#)



- a. Whatever the situation is, please be precise if it's a specific or a common legislation, if integrated in a more general one (including prevention of emissions, soil protection, land planning, environment & health, etc.)
 - b. If there is no legislation, please be precise how you tackle the problem. *The problem is dealt with by legislation, regulations and guidance at a State and Territory level.*
 - c. What are the main policy objectives? *Protect the beneficial uses of land, surface water, groundwater and air*
 - d. What are the foundational principles on which the national policy is based? (e.g., polluter pays, risk-based, fit-for-use, stand-still, transparency, ...). *The key basis is: risk-based, polluter pays, ecologically sustainable development. There are also other principles that are adopted by the States such as the precautionary principle, and the principle of intergenerational equity.*
6. What is the Chain of Liability for the management of contaminated land?
- a. Polluter? Land owner? Last operator? Occupier? *Varies from state to state, but generally the primary liability lies with the polluter, although the land owner and occupier will also be liable if the polluter is not available.*
 - b. Is there any difference between new and historic contamination? *No – need to define new contamination for instance a spill or “recent” leak is considered operational and in NSW for instance is dealt with by pollution law (Protection of the Environment Operations Act 1998) rather than contamination law (Contaminated Land Management Act 1998)*
 - c. Can a responsible party pass on the liability to a purchaser? (under statutory law? Contractually?) *Varies from state to state. Generally liability can be passed on contractually, although if the contract breaks down then the liability will pass back to the polluter/owner/occupier. There are formal means of passing liability to a purchaser in some States (eg South Australia).*
 - d. Do you separate the obligation to remediate soil pollution and the liability regarding the damage caused by soil pollution and the related remediation measures? *The requirement of the regulatory agency is generally to remediate land and groundwater to make it fit for purpose, and to address any damage caused. The purpose may be restricted (such as to make good for industrial land rather than residential land). Contractually there may be other requirements (eg to return the land to its state at the commencement of a lease).*
 - e. Are you facing specific situations (e.g. privatization of the industrial activities, war impacted areas, ...) needing special programme? *Yes. In NSW derelict mine sites have a special program which includes government funding to address mining legacies: <http://www.resources.nsw.gov.au/environment/derelict>*



7. Are there any specifications at regional / local level? There are guidelines relating to the assessment of contamination and confirming that land and groundwater is suitable for use; these include guidelines for EPA accredited experts in assessing and confirming that land and groundwater is fit for use. These guidelines in turn refer to national guidance on the assessment of land and groundwater (the NEPM), and also other national guidelines relating to drinking water quality and the various uses of water.
8. Are there specifications for site closure? Answer to question 7 applies. These include guidelines relating to groundwater quality and closure.
9. Is there any legal requirement to conduct investigation for potential contamination in the sale of the property? This may be the requirement of the Planning Authority, as a condition of a property development approval. It is common that where the previous site use has the potential to have caused pollution, that investigation will be required by the planning authority as a requirement prior to approval of rezoning or property development.
10. Does your national policy have any kind of inventories/registers? If yes, please be precise regarding which sites are registered, how the data are collected and if the databases are public. National policy does not have such registers. There are registers in each State maintained by the State regulatory agency.
11. What are the strong, weak points and the major bottlenecks with respect to the current regulations in your country? Strong points: uniform set of guidelines on assessing contamination (the NEPM); effective system of EPA accredited experts who review work and confirm that land is suitable for use. Weak point: there is not a nationally uniform approach and guidance relating to remediation.

TECHNICAL ISSUES RELATED TO THE LEGAL FRAMEWORK

12. Are there site investigation requirements? Not in a legal sense, but the technical requirements for assessment are outlined in the NEPM, and these have been adopted by the States.
13. Are Risk Assessment & Management the main tools? Yes, the overall approach is Risk-Based Land Management.
14. Are there specific technical approaches used?
 - a. For Human Health (HH), Ecosystems, Groundwater (GW), Surface waters (SW), other targets (i.e. buildings, infrastructures, ...please be precise). All relevant beneficial uses of soil, groundwater, surface water and air must be protected.



- b. On a site by site specific approach, or by derivation of guideline values? If possible, please detail your answer. There are published soil and groundwater guideline values to protect the beneficial uses of land (eg human health, ecology) that are used as “investigation thresholds” – they are protective and if exceeded further investigation and assessment is required. Where published values are not available for certain contaminants or situations, a site-specific assessment is required. There is guidance on how to carry out a site-specific risk assessment. There are guideline values to protect the uses of groundwater and surface water.
 - c. Do you take into consideration others sources of pollution in the risk assessment? Generally the focus is on exposure to soil and groundwater contamination; this takes into account other background exposure that will occur. Other sources of contamination (such as from an adjacent site) is also considered.
15. If the national policy uses guideline values, please be precise in describing the following points:
- a. Reasons for derivation of generic values to protect specific beneficial uses of land, groundwater and surface water, and air if relevant.
 - b. Objectives / levels of implementation (investigation, risk assessment, remediation) the national guidance outlines the process of risk assessment that should take place, and also publishes “Investigation thresholds” that can be used.
 - c. Priority substances not at national level except where required by International treaties i.e. Stockholm and POPs. Some states define certain priority contaminants such as PCBs, and require particular management requirements for these.
 - d. Protocols of derivation (including acceptable risk levels used). Yes, the NEPM includes a protocol for human health risk assessment.
16. What are the drivers for remediation?
- a. To what level is clean-up required? (i.e. acceptable risk, land use values, ...) land must be suitable for use; groundwater should be suitable for use and must not adversely affect the water or land where it discharges.
 - b. Does your national policy use cost-benefits analysis for the choice of the remedial solution? no
17. What are the main remediation strategies or treatment techniques used in your countries (including Natural Attenuation)?
- a. Distribution of techniques? A variety of methods can be adopted; main requirement is that they will make the land and groundwater suitable for use. MNA can be an acceptable technique, if the condition of groundwater that results does not pose an unacceptable risk and the time scale for restoration of beneficial uses is acceptable.
 - b. Evolution in time? Yes, but not explicitly.

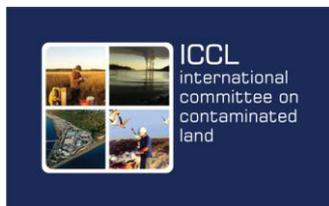


- c. Acceptance of innovative treatment techniques? **Yes, if these will work.**
18. Are you considering sustainability in the national approach?
- If yes, how? In particular, how the three pillars of sustainability are considered and balanced. **Yes. Australia is considering this, and is likely to include sustainable remediation principles in guidance being developed.**
 - If no, explain the reasons and the future challenges.
19. How does your country bridge the CLM approach with:
- Land planning programmes? **The town planning authorities have the requirement that the land be suitable for the proposed use, and where contamination is suspected will require that an audit be carried out to confirm this.**
 - Public health programmes (aggregation of impacts on surrounding populations) **The environmental agencies work with the health agencies to protect human health, and the health agencies provide guidance on the process of health risk assessment, and also have provided input in the formulation of guidance on assessment of contamination (the NEPM). There is not a program to assess the aggregation of impacts on surrounding populations.**

FINANCIAL ISSUES

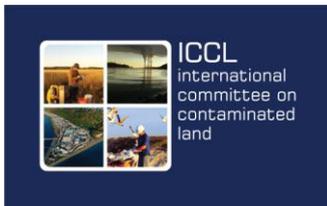
20. What are the specific practices with respect to “Orphan sites”? **Generally not well defined; orphan sites are generally dealt with on an ad hoc State by State basis on a needs basis, with State funding. Generally Australia does not have a large number of orphan sites.**
21. Do you have an idea of the annual budget allocated to Soil Contamination Management? **No. each EPA has a budget for management of environmental regulation, but not for remediation activities**
- How is it divided between public, private and others? **The public or private sector organisations/companies that are responsible for particular sites are responsible for remediation.**
 - What are the main financial / funding systems in place in your country? (e.g. Financial guarantees, insurance, public – private partnerships, special foundation, industrial consortium, enforcement, ...). **Owner and developer funding, drawing on financial institutions (banks) as required.**
 - Between the different steps of management (investigation, remediation, monitoring...)? **The responsible party will pay for these**

ORGANISATIONAL ISSUES



22. How are stakeholders and in particular communities involved in the approach? Stakeholders and the community will be consulted on a needs basis or as may be required by the planning authority; large remediation projects generally involve consultation with the community, but this varies from State to State.
23. Is there a specific approach for:
- Brownfields? no
 - Megasites? no
 - Widespread pollutions? Generally no
 - Reuse of excavated soils? (e.g., in relation to their quality) there are guidelines about situations and quality of soils for reuse. These vary from State to State.
24. Does your national policy include any accreditation system for consultants or service providers? If yes, please provide some details. There is not a national system for accreditation of consultants or experts, but each State has either an accreditation system for expert individuals (“auditors”) or draws on individuals accredited in other States. There is some mutual accreditation recognition between some States. There is not an accreditation system for consultants.
25. Do you have any training / capacity building programme, any management accountability and performance measurement? There are regular training courses run by the University of Technology Sydney and the National Centre for Groundwater Research and Training. There are also other specialist training courses run on an ad hoc basis by various organisations, such as CRC CARE, the Australian Contaminated Land Consultants Association, the Australian Land and Groundwater Association, and other Associations, private companies and interest groups.
26. How is the necessary inter-governmental coordination for CLM organized? (e.g. with Health Protection Department, with the public site owners, with state or local public sector environmental organizations, with special interest advocacy groups,) there is a national Council of Australian Governments (COAG) that has a Standing Council on Environment and Water, and a Seamless Environmental Regulation Thematic Oversight Group (SERTOG) Contaminated Environments Network. These coordinate particular national initiatives regarding environmental protection. There is a National Environment Protection Council (NEPC) that oversees the preparation of national measures such as the NEPM (assessment of site contamination) and reports on their implementation. The NEPM requires agreement and acceptance by the various state and territory environmental and health agencies. The NEPC meets simultaneously with the COAG Standing Council.

CRUCIAL DEVELOPMENTS IN THE FUTURE



Are there any additional issues to be further developed in the following months/years whatever they are (Research and Development needs, organisational issues, ...)? A National Remediation Framework is in the course of preparation by CRC CARE and representatives from regulatory agencies and industry; this should encourage a uniform approach to remediation and management of contaminated sites. This is likely to include the principles of sustainable remediation. In addition there a consultant accreditation scheme is being considered.

Unofficially or officially, do you see any opportunities for collaboration in the coming months or years that may improve overall coordination among international organizations? (e.g., conferences, workshops, international (technical or policy) initiatives, growing alliances (e.g., in support of redevelopment /reuse of contaminated lands, etc.). *yes, coordination on ICCL and other international conferences such as Aquaconsoil, Battelle, Cleanup (Australia).*

REFERENCES

Please give most important references (documents, website, projects, and case studies) that could be relevant for explaining your national approach

National Environment Protection Measure.

<http://www.scew.gov.au/nepms/assessment-site-contamination>