



The following guideline provides general guidance in relation to competencies and acceptance of environmental auditors and related professionals in the assessment of site contamination.

This Schedule forms part of the National Environment Protection (Assessment of Site Contamination) Measure as varied 2011 and should be read in conjunction with that document, which includes a policy framework and assessment of site contamination flowchart.

This Schedule replaces Schedule B10 to the National Environment Protection (Assessment of Site Contamination) Measure 1999.

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Competencies and acceptance of environmental auditors and related professionals

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1 Introduction

The assessment of contaminated sites is a specialised professional area involving a number of disciplines. Practitioners must have a range of competencies and be able to recognise the need for supporting professional advice beyond their expertise when assessing contamination and its effects on land use and the environment. The extent to which these competencies are applied varies with the complexity of contamination issues on individual sites.

Professional assessments of site contamination deal with health and environmental issues of concern to landowners, occupiers and the public. These assessments are required by regulatory and planning authorities for the management of contaminated land and in development approval processes.

This Schedule should assist the development of arrangements to provide consistency in the recognition of competent professionals for contaminated site assessment across Australia.

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2 Purpose

The purpose of this Schedule is to:

- describe the competencies and experience which are essential for professionals involved in contaminated site assessment
- provide a general framework for the appointment or acceptance by regulatory authorities of contaminated land professionals who are required under statute to certify site assessments.

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3 Use of these guidelines

This Schedule is primarily intended for use by regulatory authorities within the scope of their environmental and planning legislation. Its application in individual states and territories will assist in establishing a consistent minimum level of knowledge, experience and technical competencies for environmental professionals carrying out contaminated site assessment within Australia, and the mutual recognition of these professionals.

It may also assist members of the community in decision making regarding the employment of professionals for contaminated site assessment work, by informing them of the broad range of competencies, knowledge and experience that should be held by environmental professionals carrying out contaminated site assessments.

Individual states and territories may have specific legislative requirements relating to the appointment or acceptance of:

- auditors appointed or accredited for the independent third party auditing of site contamination
- third party reviewers accepted to conduct independent third-party reviews for the certification of assessment and remediation
- specialised professionals who are required under statute to demonstrate relevant qualifications and experience when presenting contamination assessment reports to regulatory authorities and to certify assessment work under statutory declarations.

Relevant aspects of this Schedule may also be used by regulatory authorities which have individual requirements for environmental professionals or which provide general advice on appropriate qualifications, experience and competencies of environmental consultants involved in the assessment and/or remediation of contaminated sites.

While regulatory authorities in individual states and territories may require specific knowledge and understanding of legislation and guidelines relevant to their jurisdiction, it is intended the broad assessment process described in this Schedule be used to establish the professional competencies required and to then determine the technical skills, experience and proficiency of these individuals.

Application of a high level of technical competency assessment would apply to the appointment of accredited auditors and to third-party reviewers and the acceptance of professionals who are certifying assessments of complex contaminated sites.

Depending on the legislative requirements applying in individual states and territories, a less stringent interpretation of these competencies may be applied in relation to assessment of sites with a lower level of contamination complexity, for example, a regulatory authority may wish to establish grades of accreditation.

4 Professional competence in the assessment of site contamination

4.1 Auditors and third-party reviewers

Professionals involved in the assessment of site contamination need to demonstrate appropriate competence, knowledge and experience relative to the complexity of site contamination to regulatory authorities for the purpose of appointment or acceptance of certification.

The multi-disciplinary nature of site contamination requires that assessors are able to identify when there is an issue that is not within their own expertise and to obtain the additional professional advice required. In considering applications, it should be recognised by regulatory authorities that it is unlikely an individual could demonstrate all technical competencies relevant to site contamination.

To improve the quality of site assessment work and encourage professional specialisation in this work area, regulatory authorities may use this Schedule as the basis of advice for stakeholders, including professional associations, on the competence of practitioners. Greater emphasis should be placed on core competencies, experience and expertise.

4.2 Environmental consultants

Environmental consultants responsible for the assessment of contaminated sites and the preparation of assessment reports should demonstrate relevant qualifications and experience to a level appropriate to the site under investigation.

This should include:

- qualifications consistent with this Schedule
- competencies relevant to the work to be undertaken
- demonstrated relevant experience in site assessment
- comprehensive knowledge of relevant legislation and guidelines
- knowledge of relevant scientific literature for assessment of the impacts of site contamination on human health and the environment
- a demonstrated commitment to training and professional development.

Further information about qualifications and experience is provided in this Schedule.

Members of the community making decisions regarding the employment of consultants for contaminated site assessment work should request components of the information identified in section 5 of this Schedule to assist in their decision making. In particular, the information should include a current and detailed curriculum vitae and those components of information which address the consultant's support team and professional indemnity insurance policy, as well as the nomination of referees. Individual jurisdictions may accredit consultants for certain activities or provide guidance on selection criteria and should be contacted for further advice as appropriate.

5 Application for acceptance

Subject to the specific legislative, policy and guideline frameworks applying in each state and territory, regulatory authorities reviewing applications from professionals for acceptance of their qualifications and experience should require the following information to be supplied for assessment.

1. A current and detailed curriculum vitae which identifies relevant qualifications and the number of years' relevant experience held by the applicant in the assessment of contaminated sites.
2. A detailed statement of the applicant's knowledge, experience and expertise in relation to the assessment of contaminated sites and environmental issues, addressing the required technical competencies.
3. A statement demonstrating the applicant's understanding of the relevant provisions of environmental legislation in the particular state or territory and knowledge of policy, regulations and procedures.
4. A statement demonstrating the applicant's knowledge understanding of the relevant provisions of guidelines issued or approved in the particular state or territory.
5. Nomination of people or companies who will provide support to the applicant in the competencies in which the applicant is not an expert.
6. Information which demonstrates the applicant's experience in forming and managing appropriate multi-disciplinary teams for complex assessments.
7. A commitment that professional liability insurance policy is, or will be, held by the applicant or on the applicant's behalf by the company employing the applicant, which demonstrates an appropriate level of coverage. Policies should cover the person for the activities to be undertaken and should not contain any exclusions which may have the effect of limiting cover for work carried out.
8. Examples of two or more relevant reports or studies on site contamination which were authored or substantially prepared by the applicant, and prepared no more than two years prior to the date of application. The reports should demonstrate the applicant's expertise in the assessment of contamination and their written communication skills. The report should clearly support the statements made by the applicant under items 2, 3 and 4 above. The role of the applicant in conducting the study (consultancy) and in preparing the report must be clearly indicated. Individual regulatory authorities may have specific requirements relating to requiring consent to be obtained from the client(s) for the reports to be submitted with the application, and may decide to return the reports to the applicant.
9. Summary information about additional reports and studies in which the applicant has made a major contribution may be presented, indicating the title of the project, the date of the report, the role of the applicant and the purpose of the project.

10. Nomination of referees. Referees should include people not directly associated with the applicant or the company employing the applicant, who have direct and recent knowledge of the applicant and can confirm the applicant's experience and expertise as stated under items 2, 3 and 4.

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6 Assessment Criteria

This section details appropriate criteria which should be considered by regulatory authorities in the assessment of applicants seeking acceptance for certification of contaminated site assessment work. Individual regulatory authorities may have specific requirements for the criteria.

6.1 Technical basis of application

The applicant should be able to demonstrate extensive experience and a high level of expertise in the core competencies required in each state and territory. In general, this will comprise such experience and expertise in all or a majority of the following:

- assessment of contaminant exposure pathways
- contaminated site assessment and management
- evaluation and interpretation of chemical and analytical data
- groundwater sampling design and methodology
- identification of potential human health and environmental risks
- soil sampling design and methodology.

The applicant should be able to demonstrate experience and competency relating to site contamination in the following areas, or have access to such expertise, to the level required by individual regulatory authorities:

- air quality (volatile emissions and dust) assessment relating to contamination
- assessment of impacts on groundwater from contaminated sites
- contaminant fate and transport
- environmental chemistry
- environmental sampling
- environmental toxicology
- geology
- human health and ecological risk assessment relating to contamination
- human toxicology
- hydrogeology
- identification of contaminants of concern from past industrial land uses
- occupational health and safety relating to contamination
- quality control/quality assurance procedures
- remediation technologies and geo-technology
- risk communication
- soil science
- statutory and environmental planning.

6.2 Legislative and guideline knowledge and understanding

The applicant should be able to demonstrate knowledge and an understanding of relevant legislation, regulations and policies relating to site contamination in each state or territory for which acceptance is sought.

The applicant should be able to demonstrate knowledge and an understanding of relevant guidelines issued or approved in each individual state and territory for which acceptance is sought.

The applicant should also be able to demonstrate consistency with relevant legislation and guidelines, in their carrying out and reporting of contaminated site assessments.

6.3 National framework

The applicant should be able to demonstrate an understanding of the National Environment Protection (Assessment of Site Contamination) Measure as varied 2011 and other national guidance documents relevant to contamination.

The applicant should also be able to demonstrate consistency with the National Environment Protection (Assessment of Site Contamination) Measure as varied 2011, in their carrying out and reporting of contaminated site assessments.

6.4 Experience and expertise

The applicant should be able to demonstrate his/her expertise in, or access to relevant expertise in, the competencies to the level required by individual states and territories.

All applicants should be required to nominate a support team of specialised professionals on whom they would rely for site issues beyond their areas of expertise. Regulatory authorities in individual states and territories may have specific requirements relating to the qualifications, experience and expertise of support team members, and their use by applicants.

The applicant should demonstrate a sound ability and experience in forming and managing a multi-disciplinary team for complex site assessment which contains the appropriate balance of expertise.

6.5 Qualifications

The applicant should hold qualifications as required by the regulatory authorities in individual states and territories (for example, a relevant bachelor's degree from a recognised institution).

6.6 Professional societies

The applicant should be a member of one or more relevant professional societies determined by regulatory authorities in individual states and territories (for example, Engineers Australia, the Royal Australian Chemical Institute, the Australian Institute of Geoscientists).

When considering professional societies which may be acceptable, regulatory authorities should consider the following criteria:

- discipline or area of expertise or interest relates directly to the assessment and management of contaminated sites
- membership is qualification-based
- membership require adherence to an appropriate code of ethics.

6.7 Professional experience

Regulatory authorities in individual states and territories may have specific requirements for the number of years of experience that applicants would be expected to have. Applicants should be expected to have had at least five years' continuous relevant experience in the assessment and management of contaminated sites for appointment as accredited auditors or for acceptance as professionals involved in preparation and certification of assessments of complex contaminated sites. Individual regulatory authorities may also consider applicants with less than the required years' contaminated land experience but with significant years of relevant and related environmental experience including assessment and management of major environmental issues involving complex sampling design and chemical or hydrogeological data collection and interpretation.

It is generally desirable that an applicant's experience include at least two years of relevant work in Australia and two years in the role of project manager involving a multi-disciplinary team approach to contaminated land or related environmental assessment and management.

It is preferable if the experience in contaminated sites work is broadly based in terms of the scale of work undertaken, the range of contaminants encountered and the scope of work performed, and includes contaminated site or environmental auditing experience, for example, as a member of an accredited auditors expert support team.

6.8 Principles of audits

The applicant should be able to demonstrate a thorough understanding of the principles of, and methods for, conducting contaminated site or environmental audits as required by the relevant state and territory, and be able to act independently using balanced professional judgement based on site-specific data and the advice of specialised support professionals.

6.9 Literature

The applicant should be able to demonstrate up-to-date knowledge of relevant scientific, technical developments and regulatory literature relating to new legislation and court proceedings and decisions relating to contaminated sites.

6.10 Professional development

The applicant should be able to demonstrate commitment to ongoing training and professional development relevant to the assessment and/or remediation of contaminated sites.

7 Acceptance processes and general conditions

7.1 General acceptance processes

Regulatory authorities may apply the following processes for the assessment, selection and review of auditors, or third-party reviewers in accordance with legislative requirements and operational policies applying in each jurisdiction.

The regulatory authority may consider the establishment of a panel to assess applications. Typical panels would have not less than three professionals including a suitably qualified chairperson. Panels need to be able to adequately assess all of the competencies relevant to contaminated land assessment and management. Apart from core competencies and other assessment criteria, the panel must consider all the relevant professional and environmental experience of each applicant, the composition and relevance of their support team, and their demonstrated ability to act independently on the basis of factual evidence.

7.2 Ongoing practice

Once appointed or accepted for certification, regulatory authorities should ensure that professionals continue to update their training and experience in relation to the assessment of contamination, and comply with the relevant legislative requirements of the individual states and territories. This may be carried out through the implementation of a quality assurance program by the regulatory authority and review of a person's appointment, particularly at times of renewal.

The regulatory authority in individual states and territories may conduct independent audits and peer reviews of assessment work and adopt a system which involves the periodic review of the status of appointed professionals. Reviewers within the regulatory authorities should have appropriate qualifications and experience.

In the event of proven malpractice by accepted persons, the regulatory authority may suspend or revoke the acceptance and apply appropriate additional penalties in accordance with their legislative requirements.