



Australian Government

Department of Education, Employment and Workplace Relations

MSS025002A Assess the environmental risk or impact of a project activity or process

Release: 1

MSS025002A Assess the environmental risk or impact of a project activity or process

Modification History

Not applicable.

Unit Descriptor

This unit of competency covers the ability to evaluate the risks or impacts associated with a specific project activity or process. It includes researching and describing the activity/process and local environment, identifying relevant environmental issues, assessing environmental risks or impacts, and then identifying appropriate environmental management actions and/or alternatives. Personnel will have access to an enterprise environmental management plan for the site and/or a checklist to guide risk/impact assessment of the activity or process against enterprise, community, and/or legislative requirements. They work under the supervision of environmental managers, scientists, engineers and/or planners.

Application of the Unit

This unit of competency is applicable to environmental technicians working in a range of industry sectors, such as:

- environmental monitoring, sampling and field testing (e.g. air, odour, water, soil and noise)
- geotechnical services
- natural resource management
- occupational hygiene monitoring (e.g. air, noise and radiation)
- groundwater and clean water (e.g. catchments, supply and environmental flows)
- water treatment, storm and wastewater management
- solid and hazardous waste management
- site remediation/rehabilitation
- resource efficiency (e.g. energy, water and waste auditing).
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

MSS024003A

Apply an understanding of environmental

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

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| 1 | Clarify the project activity or process and environmental management framework | 1.1 | Review the history of the project activity or process and scope of the required risk/impact assessment |
| | | 1.2 | Identify relevant legislative, regulatory and/or licensing requirements |
| | | 1.3 | Access and interpret available information about the site, including relevant enterprise environmental management documents and/or risk assessment guidelines |
| | | 1.4 | Prepare a detailed description of all phases of the project or process and the site/project environment |
| | | 1.5 | Confirm project/process details, risk assessment procedure and risk assessment criteria with supervisor |
| 2 | Identify environmental issues for project activity or process | 2.1 | Consult with enterprise personnel to identify relevant environmental issues |
| | | 2.2 | Seek supervisor's advice if input from community representatives and/or environmental specialists may be required |
| | | 2.3 | Identify significant hazards and short/long-term risks associated with the process or project activity |
| | | 2.4 | Analyse each part of the process or project for impacts on the physical, biological and social components of the local environment and ecological linkages operating at the site |

- 2.5 Identify both positive and negative impacts
- 3 Assess environmental risks and impacts
 - 3.1 Use agreed assessment criteria to evaluate project activity or process against relevant legislative, regulatory and/or licensing requirements, site terms/conditions, community values, and enterprise environmental management policies/plans
 - 3.2 Summarise all significant environmental risks or impacts and the evidence used to justify the assessment
- 4 Evaluate alternatives
 - 4.1 Review enterprise environmental management documents to identify specified methods for controlling risks and minimising impacts at the site
 - 4.2 Work with relevant enterprise personnel and experts to consider alternative solutions, as necessary
 - 4.3 Identify possible amendments to project activities, alternative processes or improved environmental management actions to minimise risks or impacts
 - 4.4 Identify feasible and economically viable solutions and document the case for adopting them
- 5 Report findings
 - 5.1 Report the assessment of environmental risks or impacts in the required format and expected timeframe
 - 5.2 Brief supervisor and/or stakeholders about the environmental assessment process and outcomes

Required Skills and Knowledge

Required skills

Required skills include:

- interpreting and applying legislative, enterprise and site requirements and procedures
- planning and conducting environmental project work
- listening and communicating effectively with clients, environmental scientists/engineers and community members
- identifying and assessing hazards, environmental risks and impacts using established assessment criteria and enterprise procedures
- using computer software (e.g. databases, spreadsheets and specialist programs)
- defining and solving problems where alternatives are not obvious and where investigations may be required and the implications of various solutions considered
- seeking advice when issues/problems are beyond scope of competence/responsibility
- writing reports using enterprise formats and guidelines
- presenting findings to stakeholders

Required knowledge

Required knowledge includes:

- environmental terms, concepts and principles relevant to project activities or processes
- awareness of environmental management documentation (e.g. environmental impact assessment, environmental impact assessment and public environment report) and environmental assessment process required for new major projects or developments
- awareness of roles, functions and responsibilities of environmental officers, environmental scientists, engineers and planners, and regulators
- relevant legislation, regulations, licences and permit requirements for enterprise operations at site
- enterprise environmental management framework of policy, procedures and management plans for site
- project activities or process phases
- enterprise procedures for identifying/assessing and controlling hazards/risks/impacts associated with project activities or processes on site
- typical kinds of impacts of project activities or processes on the physical and ecological environment, infrastructure, land use, social issues and community values
- enterprise project planning, management and reporting requirements
- relevant health and safety requirements and enterprise safe work procedures

Evidence Guide

Overview of assessment	Competency must be demonstrated in the ability to perform consistently at the required standard.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Assessors must be satisfied that the candidate can competently and consistently apply the skills covered by this unit of competency in new and different situations and contexts. Critical aspects of assessment and evidence include:</p> <ul style="list-style-type: none"> • interpreting and applying enterprise procedures and tools for conducting assessments of environmental risks or impacts • identifying the significant environment risks and impacts for specified project activities or processes • logically assessing risks and impacts using enterprise assessment criteria • evaluating existing methods for controlling risks and minimising impacts, and suggesting improvements or practical alternatives • recognising the limits of their technical competence, role and responsibility • working safely.
Context of and specific resources for assessment	<p>This unit of competency is to be assessed in the workplace or a simulated workplace environment. Assessment should emphasise a workplace context and procedures found in the candidate's workplace. This unit of competency may be assessed with:</p> <ul style="list-style-type: none"> • <i>MSS025015A Plan and conduct environmental project work.</i> <p>The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team.</p> <p>Resources may include:</p> <ul style="list-style-type: none"> • enterprise environmental management documentation for site • enterprise risk assessment procedures and tools.
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • review of reports of risk/impact assessments for project activities or processes prepared by the

	<p>candidate</p> <ul style="list-style-type: none">• feedback from peers and supervisors that the candidate consistently follows enterprise risk assessment procedures and works safely• oral/written questioning about environmental risk/impact assessment tasks typically conducted by environmental officers under supervision. <p>In all cases, practical assessment should be supported by questions to assess underpinning knowledge and those aspects of competency which are difficult to assess directly.</p> <p>Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</p> <p>The language, literacy and numeracy demands of assessment should not be greater than those required to undertake the unit of competency in a work-like environment.</p>
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Guidance information for assessment	
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Range Statement

Codes of practice	Where reference is made to industry codes of practice, and/or Australian/international standards, it is expected the latest version will be used
Legislation, standards, codes, procedures and/or enterprise requirements	<p>Legislation, standards, codes, procedures and/or enterprise requirements may include:</p> <ul style="list-style-type: none"> • federal legislation, such as: <ul style="list-style-type: none"> • Environment Protection and Biodiversity Conservation Act 1999 • Australian Heritage Council Act 2003 • Native Title Act 1993 • state/territory government legislation and regulations and local government by-laws, policies, and plans dealing with: <ul style="list-style-type: none"> • land use, acquisition, planning and protection • environmental protection • cultural/heritage protection • vegetation management • nature conservation and wildlife/plant protection • water and water management • soil conservation • pollution and contaminated sites • fisheries, forestry and mining operations • Australian and international standards, such as: <ul style="list-style-type: none"> • AS/NZS ISO 14000 Set:2005 Environmental management standards set • enterprise or regulator procedures for sampling, monitoring and in-field testing • enterprise procedures and tools for assessment of environmental risks and impacts • material safety data sheets (MSDS) • enterprise environmental management plans for sites and projects • safe work procedures
Project activity or process	The project activity or process will be of a complexity consistent with the role of an environmental officer working under the supervision of an environmental

	<p>scientist, engineer or planner, and may include:</p> <ul style="list-style-type: none">• construction activities• plant operations• functions and processes relocating to new premises• changes in processes involving changes in use of products or generation of waste• production of new materials• any work activities with significant risk to, or potential impact on, the environment
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<p>Enterprise environmental management documents</p>	<p>Enterprise environmental management documents may include:</p> <ul style="list-style-type: none"> • notice of intention, initial advice statement • environmental impact assessment • environmental impact statement • public environment report • environmental management plans for specific sites and projects • site environmental management procedures and actions for specific issues • site environmental management action checklists • quality verification checklists • work method statements • job hazard analyses • reporting forms
<p>Site or project environment</p>	<p>Site or project environment may include:</p> <ul style="list-style-type: none"> • physical, biological and social components • land uses and tenures • climate • geology, landforms and soils • surface and groundwater, water quality and hydrology • air quality and dust • noise • pollutants and contaminants • vegetation, plant diseases, clearance and weeds • animal life, habitats, mobility and threats • rare and endangered species • community infrastructure • ethnography of area • archaeology • regional and local demography
<p>Environmental issues</p>	<p>Environmental issues may include:</p> <ul style="list-style-type: none"> • physical issues, including: • significant land disturbance, erosion, subsidence and instability • alteration of water courses • effects on quality, quantity or availability of surface water or groundwater • salination of water or land • acid drainage

	<ul style="list-style-type: none"> • heavy metal contamination • impact on coastal or marine landforms • ecological issues, including: • direct impacts on vegetation • loss of habitat • displacement of fauna • impact on ecological processes and linkages • loss of biodiversity • potential for spreading plant diseases and noxious weeds • impact of toxic or hazardous materials • creation of new habitats • land use issues, including: • major changes of land use • compatibility of development with surrounding land uses • preclusion of alternative land use (e.g. conservation or recreation) • increased demand on scarce natural resources • creation of new water storage and supplies • creation of opportunities for alternative beneficial land uses • social issues, including: • influx of population • impact on health and safety • changes in community character • creation of employment • increased revenue for local communities • community and cultural aspects • infrastructure issues, such as load on existing roads • impact on services, including utilities, health, education and community services
<p>Occupational health and safety (OHS) and environmental management requirements</p>	<p>OHS and environmental management requirements:</p> <ul style="list-style-type: none"> • all operations must comply with enterprise OHS and environmental management requirements, which may be imposed through state/territory or federal legislation - these requirements must not be compromised at any time • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied • where relevant, users should access and apply current industry understanding of infection control issued by

	the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health
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Unit Sector(s)

Environmental

Custom Content Section

Not applicable.