



Australian Government

MSS025002 Assess the environmental risk or impact of a project activity or process

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSS025002A Assess the environmental risk or impact of a project activity or process

Application

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 organisation environmental management plan for the site and/or a checklist to guide risk/impact assessment of the activity or process against organisation, community, and/or legislative requirements. They work under the supervision of environmental managers, scientists, engineers and/or planners.

This unit of competency is applicable to environmental technicians working in a range of industry sectors, such as environmental monitoring, and sampling (e.g. air quality, water, soil and noise); occupational hygiene monitoring (e.g. air, noise and radiation); groundwater and clean water (e.g. catchments, supply, environmental flows); water treatment, storm and wastewater management; solid and hazardous waste management; site remediation/rehabilitation; management of contaminated sites; geotechnical services and civil engineering; natural resource management; resource efficiency (e.g. energy, water and waste auditing).

While no specific licensing or certification requirements apply to this unit at the time of publication, environmental monitoring and management activities are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

MSS024003 Apply an understanding of environmental principles to a site

Competency Field

Project management

Unit Sector

Environmental

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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| 1 Clarify the project activity or process and environmental management framework | <p>1.1 Review the history of the project activity or process and scope of the required risk/impact assessment.</p> <p>1.2 Identify relevant legislative, regulatory and/or licensing requirements.</p> <p>1.3 Access and interpret available information about the site, including relevant organisation environmental management documents and/or risk assessment guidelines.</p> <p>1.4 Prepare a detailed description of all phases of the project or process and the site/project environment.</p> <p>1.5 Confirm project/process details, risk assessment procedure and risk assessment criteria with supervisor.</p> |
| 2 Identify environmental issues for project activity or process | <p>2.1 Consult with organisation personnel to identify relevant environmental issues.</p> <p>2.2 Seek supervisor's advice if input from community representatives and/or environmental specialists may be required.</p> <p>2.3 Identify significant hazards and short/long-term risks associated with the process or project activity.</p> <p>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.</p> <p>2.5 Identify both positive and negative impacts.</p> |

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| 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 organisation 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 organisation environmental management documents to identify specified methods for controlling risks and minimising impacts at the site. |
| | | 4.2 Work with relevant organisation 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. |

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Legislation, regulations, standards, codes, workplace procedures and/or requirements include the latest version of one or more of:

- federal legislation, such as Environment Protection and Biodiversity Conservation Act, Australian Heritage Council Act, Native Title Act and National Environmental Protection Measures
- state/territory government legislation and regulations and local government by-laws, policies, and plans dealing with land use, acquisition, planning and protection; environmental protection; cultural/heritage sites; vegetation management; nature conservation, wildlife/plant protection; water and water management; soil conservation; pollution and contaminated sites; fisheries, forestry and mining operations
- legislation, standards and codes of practice for work health and safety (WHS)
- Australian and international standards covering environmental management, such as AS/NZS ISO 14000 Basic Set:2007 Environmental Management Basic Set
- workplace environmental management plans for specific sites and/or projects
- workplace or regulator procedures for sampling, monitoring and in-field testing; procedures and tools for assessment of environmental risks and impacts
- workplace documents, such as standard operating procedures (SOPs), work schedules, recording and reporting procedures, equipment manuals and warranties; safety data sheets (SDS) and safety procedures; waste minimisation, containment, processing and safe disposal procedures.

Project activity or process includes one or more of:

- 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

and where risk/impact assessment of these is consistent with the role of an environmental officer working under the supervision of an

environmental scientist, engineer or planner.

**Organisation
environmental
management
documents include
one or more of:**

- 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.

**Site or project
environment
includes one or more
of:**

- 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.

**Environmental
issues include one or
more of:**

- physical issues, such as:
 - 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
 - heavy metal contamination

- impact on coastal or marine landforms
- ecological issues, such as:
 - 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, such as:
 - 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, such as:
 - 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.

WHS and environmental management requirements include:

- compliance with relevant federal/state/territory WHS legislation at all times
- assuming that samples are potentially hazardous and applying standard precautions
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and state/territory Departments of Health, where relevant.

Unit Mapping Information

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Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>