



Australian Government

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

Release: 1

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

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> |
| 3 | Assess environmental risks and impacts | <p>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.</p> <p>3.2 Summarise all significant environmental risks or impacts</p> |

and the evidence used to justify the assessment.

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| 4 | Evaluate alternatives | <p>4.1 Review organisation environmental management documents to identify specified methods for controlling risks and minimising impacts at the site.</p> <p>4.2 Work with relevant organisation personnel and experts to consider alternative solutions, as necessary.</p> <p>4.3 Identify possible amendments to project activities, alternative processes or improved environmental management actions to minimise risks or impacts.</p> <p>4.4 Identify feasible and economically viable solutions and document the case for adopting them.</p> |
| 5 | Report findings | <p>5.1 Report the assessment of environmental risks or impacts in the required format and expected timeframe.</p> <p>5.2 Brief supervisor and/or stakeholders about the environmental assessment process and outcomes.</p> |

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.

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| Legislation, regulations, standards, codes, workplace procedures and/or requirements | <ul style="list-style-type: none"> • 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, |
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include the latest version of one or more of:

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

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

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

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

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Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- evaluating the risks or impacts associated with at least two (2) different project activities or processes and identifying appropriate environmental management actions and/or alternatives in each case
- interpreting and applying relevant legislative, regulatory, workplace/site requirements
- researching and describing the project activity/process and local environment and identifying potential environmental issues
- applying relevant workplace procedures and/or site environmental management plans when conducting assessments of environmental risks or impacts
- using computer software (e.g. databases, spreadsheets and specialist programs) to process and present data
- listening and communicating effectively with others, such as clients, environmental scientists/engineers and community members
- identifying significant environment risks and/or impacts for specified project activities or processes
- logically assessing environmental risks and impacts using given assessment criteria, tools and/or checklists
- evaluating existing methods for controlling risks and minimising impacts at the site
- identifying possible amendments to project activities, alternative processes or improved environmental management actions to minimise risks or impacts
- identifying feasible and economically viable solutions and documenting the case for adopting them
- seeking advice when issues/problems are beyond scope of competence/responsibility
- presenting the findings and details of environmental risk assessment process to stakeholders
- reporting the outcomes of environmental risk assessment of project activities or processes in the required format and expected timeframe
- working safely.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- 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 operations at site
- workplace environmental management framework of policy, procedures and management plans for site
- details of project activities or process phases
- typical kinds of impacts of project activities or processes on the physical and ecological environment, infrastructure, land use, social issues and community values
- workplace procedures for identifying/assessing and controlling hazards/risks/impacts associated with project activities or processes on site
- workplace project planning, management and reporting requirements
- relevant hazards, health and safety requirements and workplace safe work procedures.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace, or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept in each case).
- Holistic assessment methods include:
 - review of two (2) reports/presentations prepared by the candidate outlining details of the site, project activities or processes, risk/impact assessment and summary of evidence, and suggested environmental management actions and/or alternatives in each case
 - feedback from peers and supervisors that the candidate consistently follows organisation risk/impact assessment procedures and works safely
 - oral and/or written questions to assess the candidate's knowledge of typical kinds of environmental risks/impacts associated with project activities or processes relevant to job role, legislative/regulatory framework, risk/impact assessment procedures, criteria, tools and checklists.

- Access is required to all equipment, materials, workplace documentation, procedures, and specifications associated with this unit including, but not limited to:
 - workplace documentation for project activities or processes
 - workplace environmental management documentation for site
 - workplace risk/impact assessment procedures, criteria, tools and/or checklists.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with an organisation providing environmental monitoring, management or technology related services about performing the competency being assessed within the last twelve months.

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