



Australian Government

MSS027010 Undertake complex environmental project work

Release: 1

MSS027010 Undertake complex environmental project work

Modification History

Release 1. Supersedes and is equivalent to MSS027010A Undertake complex environmental project work

Application

This unit of competency covers the ability to carry out complex environmental project activities and/or coordinate the activities of concurrent projects. Personnel are required to review and confirm the requirements of each project/activity, organise and carry out project activities, oversee the progress of projects/activities and finalise the work in each case. They may be responsible for all or some project deliverables, work in teams on aspects of projects, and may liaise with multiple clients. Personnel work under the supervision of an environmental scientist or engineer, site manager or workplace environmental manager. The unit does not cover procurement of project resources and contract management.

This unit of competency is applicable to environmental site coordinators, environmental managers and senior environmental officers working in all industry sectors. Note that the term 'manager' is used to refer to management of a function, project and /or program and does not necessarily imply line management.

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

MSS025015 Plan and conduct environmental project work

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.

- | | | | |
|---|---|-----|---|
| 1 | Review and confirm project requirements with manager | 1.1 | Confirm own role, limits of responsibility and reporting requirements for assigned projects/project activities. |
| | | 1.2 | Review workplace project management procedures and controls. |
| | | 1.3 | Review background information for each project/project activity to clarify intended outcomes, key stakeholders, drivers and likely constraints. |
| | | 1.4 | Analyse project plans and clarify roles and responsibilities of project team members, deliverables, timeframes, stakeholder involvement and available resources. |
| | | 1.5 | Negotiate any necessary changes to project plans in accordance with workplace project management procedures. |
| | | 1.6 | Update project plans with confirmed information for milestones, resources, team members and stakeholder details, as appropriate. |
| | | | |
| 2 | Organise and undertake project activities | 2.1 | Use appropriate project management tools to achieve efficient integration and sequencing of projects/activities. |
| | | 2.2 | Consolidate schedules of activities, timeframes and milestones on a single planning management framework to enable efficient monitoring of each project/project activity. |
| | | 2.3 | Identify possible/actual clashes in activities and negotiate alternatives with project managers and/or own manager, as appropriate. |
| | | 2.4 | Carry out own project tasks in accordance with relevant project plans and manage any variations in accordance with workplace project management procedures. |
| | | 2.5 | Capture, record and store required project information and data. |
| | | 2.6 | Support project team members to achieve project milestones and assigned outputs with resources available. |

- 2.7 Seek manager's advice when challenges are beyond own technical competence or when input from environmental specialists may be required.
- 3 **Manage the progress of multiple projects/activities**
- 3.1 Anticipate risks to progress or achievement of project outcomes and notify relevant personnel in accordance with risk management plans.
- 3.2 Monitor completion of project activities and progress against targets and milestones.
- 3.3 Negotiate and/or implement corrective actions, as necessary, with project team members/managers in accordance with workplace project management procedures and controls.
- 3.4 Develop solutions in response to project problems and unforeseen or changed circumstances in consultation with project managers and/or own manager, as appropriate.
- 3.5 Provide regular project reports in accordance with project plans and workplace project management procedures.
- 4 **Finalise project activities**
- 4.1 Provide deliverables for each project/project activity in accordance with the specified timeframe and quality standards.
- 4.2 Provide deliverables for each project/project activity in accordance with the specified timeframe and quality standards.
- 4.3 Ensure all project records are accurate and complete.
- 4.4 Evaluate project processes to identify unresolved issues and recommend opportunities for improvement of future projects/project activities.
- 4.5 Provide timely and accurate project reports in accordance with workplace project management procedures and using the specified style, language and formats.
- 4.6 Archive project information and return borrowed/unused

resources in accordance with workplace project management procedures.

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 requirements include the latest version of one or more of:

- federal legislation, such as the Environment Protection and Biodiversity Conservation Act, Australian Heritage Council Act, Native Title Act and National Environmental Protection Measures
- state/territory government legislation and local government by-laws, policies, regulations and plans dealing with land use, acquisition, planning and protection; environmental protection; cultural/heritage protection; vegetation management; nature conservation and wildlife/plant protection; water, 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 (e.g. AS/NZS ISO 14000 Basic Set:2007 Environmental Management Basic Set); and sampling, testing and/or monitoring of air, water and soils
- industry methods and guidelines
- registration/licensing and/or accreditation requirements
- site/project-specific information, such as applicable legislative requirements and approval requirements; work schedules; industrial processes; environmental management plans; monitoring/inspection procedures and management actions to prevent/control environmental impacts or risks; methods for sampling and in-field testing; procedures for recording, processing, presenting and reporting data; job hazard analyses; safe work procedures and work method

statements

- workplace documents, such as standard operating procedures (SOPs); equipment manuals and warranties; supplier catalogue and handbooks; safety data sheets (SDS); waste minimisation, containment, processing and safe disposal procedures.

Complex environmental project work includes developing, evaluating/updating and implementing environmental management and/or monitoring programs associated with one or more of:

- planning, operation or closure of construction, infrastructure, industrial and mining sites
- rehabilitation of sites
- revegetation of sites
- management of pests
- acid sulphate soils
- acid rock drainage
- wetlands
- stormwater systems
- air quality, dust and emissions/odours
- water quality and water supply/use issues
- contaminated sites (e.g. hydrocarbons)
- waste, stockpiles and waste rock dumps
- protection of biodiversity
- acquisition and commissioning of complex equipment
- significant quality improvement projects
- set-up and operation of remote sensing sites
- set-up and operation of groundwater bores
- investigating a multifaceted or difficult environmental complaint, non-conformance or incident.

Background information includes one or more of:

- legislative/regulatory, permit, licence and approval requirements for site/project
- site or project history
- client history and correspondence
- information about site processes and work schedules
- records of consultations with stakeholders
- emergency plans and safety procedures
- site access protocols and permits
- maps (road and topographical)
- existing databases (e.g. vegetation, topography, soils and regional ecosystem maps)
- workplace environmental management plans for site
- workplace, regulatory or standard methods/procedures for environmental sampling, monitoring or in-field testing

- manufacturer information or manuals for environmental equipment
- relevant case studies and good practice models.

Project plans include one or more of:

- purpose, scope, inclusions and exclusions
- objectives, milestones, output/project deliverables and their acceptance criteria and quality standards
- performance criteria/indicators, expected outcomes/measurable benefits and evaluation criteria
- project management framework for:
- planning, implementation, closure and governance
- communications with stakeholders
- cost estimates, budget and financial management
- procurement and contract management
- risk analysis and control measures
- quality control and assurance procedures
- WHS requirements
- record keeping and reporting
- specific roles and responsibilities of team members
- work breakdown structure, schedules and timeframes
- available facilities and resources (e.g. equipment and personnel).

Project management tools include one or more of:

- project management software and tools, such as:
 - Gantt and bar charts
 - program and evaluation review technique (PERT) charts
 - critical path method
 - cost schedule control system
 - logistics support analysis
 - life cycle cost analysis
 - spreadsheets
 - electronic and manual recording systems.

Project information and data include one or more of:

- schedules, records of time spent and progress
- costs, expenditure, invoices, payments, quotations and purchases
- records of equipment used
- emails and correspondence
- records of consultations
- sampling, monitoring, survey or in-field test data and results

- progress reports and draft plans/procedures
- project outputs
- final reports/briefings/recommendations.

Solutions to project problems include one or more of:

- researching and applying models of good practice or relevant findings from case studies
- seeking input from environmental specialists
- reducing costs
- seeking additional resources to meet deadlines
- negotiating an extension to a deadline
- redefining completion or quantity or quality of project outputs/outcomes
- sharing ideas to generate improved work processes
- changing roles and responsibilities within project team
- outsourcing project components.

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 MSS027010A Undertake complex environmental project work

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 MSS027010 Undertake complex environmental project work

Modification History

Release 1. Supersedes and is equivalent to MSS027010A Undertake complex environmental project work

Performance Evidence

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

- scoping, planning and managing multiple projects/activities that involve complex environmental work on at least one (1) occasion (either individually or as part of a team)
- reviewing background information for each project/project activity to clarify requirements, resources and constraints
- interpreting, explaining and applying relevant legislative/regulatory requirements, management plans, standards, procedures and methods
- analysing complex technical briefs and refining project plans
- prioritising, scheduling and coordinating complex and/or concurrent projects/project activities
- using information management systems and project management software/tools to develop plans and monitor/report progress
- providing own outputs that meet the required quality standard and in accordance with project plans
- supporting, communicating and consulting with project teams, stakeholders and/or community members to achieve quality outcomes on time and within budget
- analysing and solving project management problems including negotiating variations (e.g. schedules, milestones, roles and responsibilities of personnel and resources)
- seeking advice when challenges are beyond own technical competence/responsibility or when input from environmental specialists may be required
- maintaining accurate records
- critically evaluating project progress, processes and outputs against agreed performance criteria and identifying opportunities for improving future project processes and management systems
- providing regular updates/briefings and explaining complex technical issues, project problems and solutions
- providing progress/final reports in accordance with project plans and workplace procedures and using the specified style, language and formats
- following procedures for working safely and minimising environmental impacts and waste.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- environmental protection/management terminology, concepts and principles used in job role
- legislative, regulatory, permit, licensing and approval requirements/processes relevant to site/projects/project activities
- workplace business goals, key performance indicators and key result areas relevant to site/projects/project activities
- site/project characteristics, nature of activities conducted at site, environmental management values, environmental issues, risks and impacts
- workplace environmental management plans, procedures, control measures and management actions for site/projects/project activities
- project management principles and tools
- workplace project management procedures and controls, such as:
 - project governance requirements
 - stakeholder management
 - quality standards
 - risk management plans
 - record management and reporting, confidentiality and security of information
 - quotation, tendering, procurement and contract management procedures, and delegations
 - financial management procedures
 - human resource management procedures and industrial agreements
- techniques for achieving effective communication, teamwork and cooperation; negotiating and resolving conflict
- troubleshooting and problem-solving techniques
- relevant hazards, health, safety and workplace emergency response 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 plans/refinements, schedules, budgets and records prepared by the candidate for complex projects/activities they have managed or undertaken
 - review of project progress/final reports prepared by the candidate, including details of their contributions and evaluation of their individual performance (for team projects)
 - feedback from manager and project team members about the candidate's ability to coordinate and support complex project, and work safely and effectively
 - oral and/or written questions to assess the candidate's understanding of project management principles and techniques for communicating effectively, managing teams and resolving common project problems
 - observation of the candidate's interactions with project team members.
- Access is required to all instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit including, but not limited to:
 - background information for environmental sites/projects/programs
 - workplace information management systems, project management procedures and tools.
- 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.

Links

Companion Volume implementation guides are found in VETNet -

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