



Australian Government

Department of Education, Employment and Workplace Relations

MSS027010A Undertake complex environmental project work

Release: 1

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Modification History

Not applicable.

Unit Descriptor

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. They work under the supervision of an environmental scientist or engineer, site manager or enterprise environmental manager. The unit does not cover procurement of project resources and contract management.

Application of the Unit

This unit of competency is applicable to environmental site coordinators, environmental managers and senior environmental officers working in a range of industry sectors, such as:

- environmental monitoring, sampling and field testing (e.g. air, water, soil and noise)
- geotechnical services
- natural resource management
- occupational hygiene monitoring (e.g. air, noise and radiation)
- water supply and treatment, storm and wastewater management
- solid and hazardous waste management
- site remediation or rehabilitation
- resource efficiency (e.g. energy, water and waste auditing).

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.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

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 enterprise 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 enterprise 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 enterprise 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 enterprise project management procedures and controls
 - 3.4 Develop solutions in response to project problems or unforeseen/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 enterprise 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 enterprise project management procedures and using the specified style, language and formatsArchive project information and return borrowed/unused resources in accordance with enterprise project management procedures

Required Skills and Knowledge

Required skills

Required skills include:

- explaining and correctly applying enterprise project management procedures and controls
- analysing complex technical briefs and project plans
- managing logistics of multiple projects/activities
- managing self, time and costs
- using project management tools to plan, monitor and evaluate projects
- using systematic, logical problem-solving techniques in response to problems and changed/unforseen circumstances
- negotiating changes to timelines, roles, responsibilities and resources
- communicating and consulting effectively with a wide range of team members, project managers, stakeholders and community members to achieve project outcomes
- using enterprise information management systems and project management software
- recording complex information accurately
- writing recommendations and preparing reports involving complex technical issues
- working safely

Required knowledge

Required knowledge includes:

- environmental protection/management terminology, concepts and principles
- legislative, regulatory, permit, licensing and approval requirements/processes relevant to site/projects/project activities
- enterprise business goals, key performance indicators and key result areas
- site/project characteristics, nature of activities conducted at site, environmental management values, environmental issues, risks and impacts
- enterprise environmental management plans, procedures, control measures and management actions for site/projects/project activities
- enterprise 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
- project management principles
- interpersonal communication, negotiation and conflict resolution techniques
- problem-solving techniques
- relevant health, safety and workplace emergency response 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 in 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"> • analysing complex technical briefs and refining project plans • planning and managing the efficient implementation of complex and/or concurrent projects/project activities • providing own outputs in accordance with project plans • supporting, communicating and consulting with project teams to achieve quality outcomes on time and within budget • analysing and solving project management problems • monitoring progress of projects/activities and evaluating outcomes • maintaining accurate records • providing regular updates/briefings and reports of project progress and outcomes • recommending ways of improving future project processes and management systems.
Context of and specific resources for assessment	<p>This unit of competency is to be assessed in the workplace or a simulated workplace environment.</p> <p>Assessment should emphasise a workplace context and procedures found in the candidate's workplace.</p> <p>This unit of competency may be assessed with:</p>

	<ul style="list-style-type: none"> • <i>relevant MSS027000A series units.</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 project management procedures and tools • background information for environmental sites/projects/programs • enterprise information management systems.
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • review of plan refinements, project schedules, budgets, records, outcomes and reports associated with complex projects/activities that the candidate has managed or undertaken • feedback from managers and project team members about the candidate's ability to effectively coordinate and support complex project work • questioning/interview to assess understanding of project management principles and the candidate's ability to solve significant problems with projects • observation of the candidate's interactions with project team members. <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>
Guidance information for assessment	

Range Statement

Codes of practice	Where reference is made to industry codes of practice, and/or Australian/international standards, it is expected
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	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 • standards covering sampling, testing and/or monitoring of air, water and soils • environmental management plan, and site information about applicable legislative requirements and approval requirements • information about site processes and work schedules • information about emergency preparedness and response • monitoring/inspection procedures and management actions to prevent/control environmental impacts or risks • sampling and in-situ measurement procedures (e.g. water, air, noise and soils) • job hazard analyses • safe work procedures, work method statements • material safety data sheets (MSDS)
Complex environmental project work	Complex environmental project work may include developing, evaluating/updating and implementing environmental management and/or monitoring programs

	<p>associated with:</p> <ul style="list-style-type: none"> • 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
<p>Background information</p>	<p>Background information may include:</p> <ul style="list-style-type: none"> • 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) • enterprise environmental management plans for site • enterprise, 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

<p>Project plans</p>	<p>Project plans may include:</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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 • occupational health and safety (OHS) 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)
<p>Project management tools</p>	<p>Project management tools may include:</p> <ul style="list-style-type: none"> • 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
<p>Project information and data</p>	<p>Project information and data may include:</p> <ul style="list-style-type: none"> • 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

	<ul style="list-style-type: none"> • final reports/briefings/recommendations
Solutions to project problems	<p>Solutions to project problems may include:</p> <ul style="list-style-type: none"> • 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
OHS and environmental management requirements	<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

Unit Sector(s)

Environmental

Custom Content Section

Not applicable.