



Australian Government

Department of Education, Employment and Workplace Relations

AHCNRM506A Plan and monitor works projects in catchments and waterways

Release: 1

AHCNRM506A Plan and monitor works projects in catchments and waterways

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency covers the process of planning, implementing and reviewing works projects in catchments and waterways. It requires the ability to assist in the planning of works projects, monitor and support the works project and report on the works project. Planning and monitoring work projects in catchments and waterways requires knowledge of catchment health, wetland and floodplain processes and function, heritage and cultural values of waterways and monitoring and evaluation tools for works projects. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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Application of the Unit

Application of the unit	This unit could be applied in a variety of workplaces that undertake or contract project works in catchments and waterways. Works projects could be undertaken with community based participants, enterprise colleagues and/or contractors.
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Inspect and assess catchment and waterways sites for inclusion in a works program	1.1. The environmental outcomes and priorities of the works program are established. 1.2. Site assessments are undertaken to confirm the physical characteristics and health of catchment and waterways. 1.3. The range of likely operating conditions, hazards and sensitive environments are assessed for impact on any proposed works project/s. 1.4. The heritage and cultural values of sites are assessed. 1.5. Potential project partners and investors are consulted on the scope and purpose of the works program.
2. Plan works projects	2.1. Project priorities are determined in consultation with stakeholders based on catchment plans, project impact and availability of funding. 2.2. The requirements for permits, licenses and other authorisations are met. 2.3. Equipment and materials required for project/s are determined and sourced using enterprise guidelines. 2.4. Terms and conditions of project work are confirmed with project partners and investors. 2.5. Plans and specifications for works project/s are prepared according to enterprise guidelines. 2.6. Project documentation is completed and details are finalised and communicated, as required.
3. Monitor works project/s	3.1. Monitoring program is established using data collection guidelines, data collection parameters and timelines. 3.2. Data benchmarks for evaluating the outcomes of project/s are established. 3.3. Occupational health and safety (OHS) arrangements are monitored against legislative requirements and other relevant policies. 3.4. The ongoing requirements of contractors and project workers are met. 3.5. Appropriate and timely support that meets the requirements of the project is provided. 3.6. The condition of the project site is monitored to ensure it is left in an agreed condition.
4. Review works program	4.1. Individual projects are evaluated to ensure compliance with agreed outcomes.

ELEMENT	PERFORMANCE CRITERIA
	4.2. Sites are assessed to determine whether projects are meeting the environmental outcomes. 4.3. Changes to the works program are recommended to better achieve catchment and waterways priorities. 4.4. A relational data management system is used for recording monitoring data and reporting to stakeholders.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- assist in project planning and requirements for implementation
- provide support to project partners during project implementation
- monitor the impact of projects on sustainable catchment management
- monitor and ensure the regulatory requirements of works project
- record, review and report on works project utilising enterprise methods
- develop waterway monitoring programs including the selection of representative water quality and macro invertebrate monitoring sites incorporating the use and maintenance of relevant equipment and indicator
- identify examples of degraded catchments and waterways
- use oral communication skills/language competence to fulfil the job role as specified by the organisation including questioning, active listening, asking for clarification, negotiating solutions and responding to a range of views
- use numeracy skills to estimate, calculate and record complex workplace measures
- use interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- wetland and floodplain processes and function including:
 - factors that influence stream flow
 - stream dynamics
 - stream formation
 - eutrophication
 - impacts of land use on waterways

REQUIRED SKILLS AND KNOWLEDGE

- indicators of catchment health including:
 - pest plant and animal infestations
 - vegetation decline
 - soil erosion
 - stream bank erosion
 - water quality decline
- water quality parameters including:
 - physical and chemical properties of water
 - biological indicators of water quality
- use of relational data management systems
 - data input
 - data analysis
 - data output
- project planning including:
 - establishing priorities
 - monitoring and reviewing
 - working with partner, investors and contractors
 - resource and equipment requirements
- regulatory requirements
 - responsibilities under the OHS Act
 - permits and licences required for on-ground works
 - local cultural and heritage values.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The candidate must be able to research and determine the environmental conditions of project worksites in relation to the wider catchment and be able to determine the physical and human resources necessary for project success. The candidate must be able to determine suitable monitoring procedures and evaluate the environmental benefits of the works program utilising existing techniques and reporting guidelines.
Context of and specific resources for assessment	Specific resources required for assessment of this unit include access to monitoring equipment used in the collection of catchment health data such as Waterwatch kits, pH meters and EC meters. Assessment of this unit could take place in conjunction with VBP584 Provide technical advice on sustainable catchment management.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Environmental outcomes may include:	• reductions in salinity • increase in vegetation cover • improvements in water quality parameters • reducing or stabilising erosion • nutrient losses from land to water • protection of heritage or cultural values.

RANGE STATEMENT	
Site assessment may include:	• an environmental assessment • establishing conditions before works • identifying cultural significance • assessing access issues for equipment and machinery • assessing access issues for workers • establishing seasonal issues i.e. site saturation or dryness for works.
Works project details may include:	• landholder contact details • description of project works • partner details • funding amounts • permits and approvals • contractor requirements • resources.
Monitoring programs may include:	• monitoring programs that contribute data to assess indicators of catchment health such as: • Waterwatch • Saltwatch • index of stream condition • macro invertebrate monitoring sites • SEPP water quality monitoring • stream flow management plans • EVC mapping • Australian Bureau of Statistics data.
Data benchmarks may include:	• quantitative data for site or catchment • social indicators such as Landcare membership • qualitative history of management and attitudes to sustainable catchment management.
Contractor and project workers requirements may include:	• management of materials and equipment resources and invoicing • resource procurement • timesheets • OHS.

Unit Sector(s)

Unit sector	Natural resource management
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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