



Australian Government

Department of Education, Employment and Workplace Relations

AHCNRM505A Provide technical advice on sustainable catchment management

Release: 1

AHCNRM505A Provide technical advice on sustainable catchment management

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency covers the provision of technical advice on sustainable catchment management to land managers in a catchment area or region. It requires knowledge of land degradation, catchment management principles, regional priorities for land management, ecological processes and the roles and responsibilities of stakeholders. Providing technical advice on sustainable catchment management requires the ability to identify land management issues, analyse the causes and provide advice to land managers on alternative practices. This unit is not intended for use in providing advice on land development. 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 is applicable to persons who have a catchment management role and are responsible for identifying and managing land degradation as well as providing advice and information on programs and funding for the sustainable management of farms, small properties, recreational land and land used for commercial activities e.g. mining.
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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. Respond to requests for advice	1.1. Enterprise guidelines are followed when responding to requests from land managers. 1.2. Information on location, land management/production objectives and land management concern/s including degradation is sought from land managers. 1.3. State and regional legislation, regulations and strategies relevant to the region are reviewed in relation to potential constraints. 1.4. Options and processes for provision of advice are confirmed with land managers.
2. Identify and analyse land management issues	2.1. A site assessment is conducted to collect information on geological characteristics, ecological processes and biodiversity. 2.2. The site visit is used to collect detailed information on land uses and land management techniques. 2.3. Site information is interpreted to land managers and other relevant stakeholders in a supportive and non-threatening manner. 2.4. The site assessment evaluates the types and levels of land degradation.
3. Provide advice on sustainable land management	3.1. Advice complies with State and regional legislation, regulations and strategies. 3.2. Options for changing land management practices take into account economic factors, technical difficulty, practical feasibility, social and/or environmental acceptability, including the highlighting of examples. 3.3. Advice to land manager includes information on outcomes of analysis, sustainable land management techniques, whole property planning and remediation measures. 3.4. Resource materials and information on supportive programs and funding are provided to land managers.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

REQUIRED SKILLS AND KNOWLEDGE**Required skills**

- identify and analyse the issues, processes and techniques in sustainable land management
- provide advice on sustainable land management
- gather information and undertake research
- recommend funding programs
- recognise limits to advice
- 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

- geology
 - rock types
 - weathering
 - soil formation and soil types
- ecological processes
 - energy flow through ecological systems
 - matter flow through ecological systems
 - nutrient cycling
- land degradation processes and impacts including:
 - soil compaction
 - erosion
 - tree decline
 - pest plant and animal infestations
 - eutrophication
 - acidification
 - salinity
 - fertility decline
- catchment Management principles
 - catchment planning priorities and programs
 - Victorian Planning Provision Framework
 - roles and responsibilities of land users in catchments
- biodiversity
 - basic plant identification techniques

REQUIRED SKILLS AND KNOWLEDGE

- animal identification
- ecological vegetation communities
- whole property planning principles
 - energy flows
 - sustainable water management
 - land capability
- extension
 - principles of extension
 - funding.

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 source information on legislation, regulations and strategies relevant to the responsibilities of land managers. The candidate must be capable of assessing land management practices in relation to the long-term objectives of a catchment or region. The ability to source and communicate advice on sustainable land management practices to a variety of land managers in a knowledgeable and non-threatening manner is critical.
Context of and specific resources for assessment	Specific resources required for assessment of this unit include access to monitoring equipment used in undertaking site assessments and documenting site information.

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.	
Land management issues may include:	• overgrazing • stock access to waterways • nutrient runoff from intensive farming or industry • riverbed and bank erosion • soil erosion • pest plant and animal infestations • salinity • native vegetation clearing or decline.

RANGE STATEMENT	
Types and levels of land degradation may include:	• processes such as erosion • soil structure decline • eutrophication • sedimentation • loss of ecosystem diversity • reduction in water quality • excess nutrients • pollution.
Remediation measures may include:	• fencing remnant vegetation • pest plant and animal control • tree-planting • construction of shelterbelts • conservation earthworks • waste water re-use • relocation of stock watering points.
Resource materials may include:	• fact sheets such as Landcare notes and Agnotes • information on websites • information on local demonstration sites • before and after pictures of similar issues.

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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