



Australian Government

Department of Education, Employment and Workplace Relations

AHCSAW503A Plan conservation earthworks

Release: 1

AHCSAW503A Plan conservation earthworks

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the development of conservation works plans featuring erosion control for the protection of rural lands and defines the standard required to: establish client needs; carry out site investigations including surveying; develop a strategy to protect natural areas; establish the purpose and specifications of earthworks; prepare detailed project costing and works plan.
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Application of the Unit

Application of the unit	This unit is carried out independently in response to requests from land managers facing soil erosion and covers the development of conservation works plans featuring erosion control for the protection of rural lands.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

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

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Establish client needs	1.1. The proposed land use is discussed and confirmed in writing with the landholder. 1.2. The catchment characteristics are reviewed and discussed considering the proposed land use. 1.3. Current impacting legislation and policies are explained to the landholder. 1.4. Possible strategies are discussed with the landholder and the best option confirmed in writing.
2. Develop the strategy to utilise earthworks	2.1. Property ownership and boundary are confirmed by checking maps and titles. 2.2. Profile of catchment is determined from survey and aerial photographs. 2.3. Earthworks concept is developed consistent with industry principles and selection criteria. 2.4. Final water disposal points are established in line with proposed strategy. 2.5. Proposed location of structures are tested by survey and discussed with landholder. 2.6. Preferred strategy is documented according to enterprise guidelines.
3. Prepare a detailed works plan	3.1. Plan is prepared according to enterprise guidelines and industry best practice. 3.2. Selection criteria applied for earthwork structures or measures align with industry standards. 3.3. Design of relevant structures are communicated with specific details to qualified designer. 3.4. Relevant documentation is prepared and presented, and is consistent with category of work and industry standards.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- establish client needs
- carry out site investigations including surveying

REQUIRED SKILLS AND KNOWLEDGE

- develop a strategy to protect natural areas
- develop the strategy to utilise earthworks
- recommend appropriate construction equipment
- prepare detailed project costing
- prepare a detailed works plan
- negotiate agreed project outcome
- use literacy skills to fulfil job roles as required by the organisation. The level of skill may range from reading and understanding documentation to completion of written reports
- 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

- relevant environmental, planning and groundwater legislation
- relevant environmental, planning and earthwork construction standards and Codes of Practice
- earthwork structures
- erosion control and design principles
- natural areas (particularly topsoil) protection and rehabilitation principles
- soils and soil formation
- levels and levelling survey plans and titles
- earthmoving principles
- total catchment issues
- land use and land development strategies
- legal issues
- environmental issues
- country code
- managing peak water flows
- subsurface and surface drainage principles and systems
- limitations of design aids provided for industry.

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	<p>The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:</p> <ul style="list-style-type: none"> • establish client needs • carry out site investigations including surveying • develop a strategy to protect natural areas • establish the purpose and specifications of earthworks • prepare detailed project costing and works plan.
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Conservation works may include:	<ul style="list-style-type: none"> • earthworks constructions - <ul style="list-style-type: none"> • dams • bank and drain • waterways • land rehabilitation • water ponding schemes • dams - <ul style="list-style-type: none"> • gully embankment • hillside • excavated

RANGE STATEMENT	
	<ul style="list-style-type: none"> • ring • turkey nest • spread bank • banks.

Unit Sector(s)

Unit sector	Soil and water conservation
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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