



Australian Government

AHCSAW503 Plan conservation earthworks

Release: 2

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Modification History

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to develop a conservation earthworks plan to control runoff to prevent soil erosion, safely store and distribute water, and rehabilitate eroded or disturbed areas.

The unit applies to individuals who take personal responsibility and exercise autonomy in undertaking complex work. This includes analysing, designing and communicating solutions to sometimes complex problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish client needs	1.1 Consult with landholder on proposed land use 1.2 Review and discuss the catchment characteristics for proposed land use 1.3 Explain to landholder impact of legislation and policies on project 1.4 Determine budget constraints for project 1.5 Discuss possible strategies with landholder

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.6 Seek agreement for proposed land use and strategy from landholder according to workplace procedures
2. Develop the strategy to utilise earthworks	2.1 Check titles and maps to confirm property ownership 2.2 Determine profile of catchment from survey and aerial photographs 2.3 Develop earthworks concept consistent with industry principles and selection criteria 2.4 Establish final water disposal points according to proposed strategy 2.5 Survey location of proposed earthworks and structures on site, and discuss with landholder 2.6 Document preferred strategy for future reference
3. Prepare a detailed works plan	3.1 Assess and select earthworks, structures or measures according to proposed land use and industry standards 3.2 Cost project and develop schedule for plan 3.3 Communicate design of structures and specifications to qualified designer 3.4 Prepare and present a conservation earthworks plan and documentation according to workplace procedures and industry standards

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Organise, evaluate and analyse ideas and information from land use documents, catchment characteristics, titles and maps to determine requirements and ensure compliance with legislation and industry standards
Writing	Demonstrate sophisticated writing skills by selecting appropriate conventions and stylistic devices to express precise meaning in plans and strategies

Skill	Description
	Prepare documentation and specifications for plans and designs, expressing ideas, exploring complex design issues and constructing the documents accurately and succinctly to industry standards
Numeracy	Use highly developed numeracy skills to interpret complex design ideas, and perform calculations with precision and accuracy for inclusion in conservation earthworks plans

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCSAW503 Plan conservation earthworks Release 2	AHCSAW503 Plan conservation earthworks Release 1	Minor changes to Application and Performance Criteria for clarity Foundation Skills added Updated Performance Evidence, Knowledge Evidence and Assessment Conditions	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW503 Plan conservation earthworks

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has produced at least one plan of conservation earthworks that conforms with the following:

- meets client needs
- conforms to industry standards
- complies with legislation and policy requirements.

There must also be evidence that the individual has:

- consulted and negotiated with client for needs, agreements and approvals
- investigated site using:
 - surveys
 - aerial photographs
 - maps
- explained to landholder the impact of legislation and policies on project
- developed a strategy to protect natural areas and utilise earthworks according to industry principles and regulatory requirements
- prepared detailed project costing according to client budget
- prepared detailed works plans and communicated design requirements to designer.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- environmental, planning, groundwater, heritage and cultural legislation, and the impact on development sites and conservation earthworks planning
- environmental, planning and earthwork construction standards and codes of practice relevant to planning conservation earthworks projects
- earthwork structures used for managing the movement of water

- principles of erosion control and design for conservation earthworks
- ecology protection and principles of rehabilitation on conservation sites
- soils and soil formation and the properties of soils for earthworks and erosion control
- determining levels and levelling on sites
- accessing plans and checking titles
- principles of earthmoving to manage water flow, and the equipment used to achieve it
- total catchment issues related to erosion and land degradation
- land use practices that contribute to erosion, and land development strategies to help mitigate erosion
- earthworks and erosion control and their potential impact on environment
- estimating and calculating peak water flows and methods to manage peak flows
- sub-surface and surface water interactions and the drainage principles and systems used in design
- simulation systems and techniques for demonstrating design outcomes and their limitations.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated on a landholder site or in an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - digital technology with planning and design tools and resources
- specifications:
 - workplace policies, procedures and processes for planning and design
 - site land use, maps, plans and titles
 - legislation, regulations and industry codes of practice for addressing land degradation
- relationships:
 - landholder.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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