



Australian Government

AHCSAW501 Design control measures and structures

Release: 1

AHCSAW501 Design control measures and structures

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design erosion and sediment control measures and structures.

This 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 occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Soil and Water Conservation (SAW)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify measures or structures to be designed	1.1 Review the erosion and sediment control plan for technical accuracy and environmental impacts 1.2 Confirm adherence to regulations and legislation and note on works plans 1.3 Confirm budget constraints for project with management or client 1.4 Apply design criteria in line with industry standards
2. Apply design procedures	2.1 Calculate catchment characteristics to required accuracy 2.2 Determine design specifications

Element	Performance criteria
	2.3 Develop draft design for structure that meets budget constraints 2.4 Modify structure design in response to application of design procedures and accepted industry practices 2.5 Ensure design applies environmentally sustainable practices
3. Prepare specification schedule	3.1 Confirm that provided documentation aligns with the plan and follows industry standards 3.2 Confirm suitability of design specifications to comply with the category of work and legislative requirements

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSAW501A Design control measures and structures

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCSAW501 Design control measures and structures

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Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- produce a design for erosion and sediment control measures and structures
- identify measures to be designed
- apply design procedures
- prepare specification schedule
- cost the project and provide recommendations in line with budget constraints
- use computer design programs
- determine design specifications using methods that meet industry standards
- develop design plan to meet client, organisational and regulatory requirements
- consult with management or client to confirm design meets requirements
- identify how the design applies sustainability principles

Knowledge Evidence

The candidate must demonstrate knowledge of:

- erosion control and design principles:
 - soils and soil formation
 - levels and levelling
 - earthmoving principles
 - total catchment issues
 - managing peak water flows
- subsurface and surface drainage principles and systems
- environmental issues related to the design
- the limitations of design aids provided for industry

Assessment Conditions

Assessors must satisfy current standards for RTOs.

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