



Australian Government

AHCSAW303 Construct conservation earthworks

Release: 1

AHCSAW303 Construct conservation earthworks

Modification History

Release	Comments
Release 1	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 use specialised earthmoving techniques to achieve fine tolerances in the construction of conservation earthworks, using a single earthmoving machine in varied conditions and terrains that requires the plant operator to develop skills that are unique to this sector.

The unit applies to individuals who work in conservation and land management roles and who use discretion and judgement in the selection, allocation and use of available resources and for solving problems.

Special vehicle licenses may apply to this unit, dependent on the type of machinery and conditions of use. Specific determination should be sought through the relevant state or territory authority.

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. Prepare for construction	1.1 Confirm construction details, sequence and specifications from site and construction plans 1.2 Identify and locate worksite and surveyed work according to maps and site plans 1.3 Select, check and prepare machinery and equipment required for

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	construction work 1.4 Identify hazards, assess risks and implement controls according to workplace health and safety procedures 1.5 Select, check and use personal protective equipment 1.6 Verify the suitability of equipment and attachments for terrain and construction work
2. Carry out conservation earthworks construction work	2.1 Operate machinery and equipment according to industry endorsed earthwork methods and patterns 2.2 Monitor and maintain optimum machinery loads in accordance with prevailing conditions and manufacturer specifications 2.3 Operate machinery safely using techniques suitable for terrain, site conditions and other operators and site worker safety 2.4 Construct earthworks according to specifications, workplace procedures and legislative requirements
3. Apply finishing techniques	3.1 Finish batters and surfaces 3.2 Retain site features and vegetation 3.3 Clear site and remove debris 3.4 Complete topsoiling of disturbed areas and surfaces
4. Finalise work	4.1 Complete work records 4.2 Clean, store and maintain machinery, tools and equipment according to environmental and biosecurity requirements

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	Interpret instructions, plans and specifications to determine construction work required and performance quality outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCSAW303 Construct conservation earthworks	AHCSAW301 Construct conservation earthworks	Minor changes to Application and Performance Criteria Updated Foundation Skills, Performance Evidence, Knowledge Evidence and Assessment Conditions	Not 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 AHCSAW303 Construct conservation earthworks

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.

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, on at least one occasion, selected equipment and safely constructed earthworks for conservation using plans and specialisations.

There must also be evidence that the individual has:

- identified hazards and implemented controls and safe operating procedures
- prepared for construction according to construction plans and workplace requirements
- carried out planned earthworks with minimal damage to natural areas according to construction works plan and specifications, including:
 - excavation
 - transport
 - dumping
 - compaction of material
- applied finishing techniques to the site
- interpreted maps and plans to identify site construction requirements
- selected and safely used earthmoving equipment suitable for construction, soil properties and terrain
- cleaned, maintained and stored equipment and machinery according to biosecurity and environmental procedures.

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:

- erosion and sediment control standards
- soil types and formation and impact on construction works and site access
- principles of conservation earthwork construction and erosion and sediment control, including:

- catchment management and soils
- earthmoving principles
- levels and levelling
- interpreting plans and designs
- natural area protection and rehabilitation principles, including:
 - preservation of topsoil
 - soils and effect on erosion and sediment control
 - recognition and preservation of threatened vegetation
 - basic plant root physiology and construction works
 - root disturbance and compaction
 - disturbance of fauna habitat
- application of legislation and regulations relating to conservation earthwork construction, including:
 - protection of flora and fauna
 - health and safety
 - environmental protection from fuels and oils
 - biosecurity
- safety while working on construction sites, including:
 - proximity to machinery and site personnel
 - impediments to safe machinery operation, including terrain
 - workplace health and safety procedures
 - personal protective equipment
- construction works and sequencing, including:
 - excavation and earthmoving principles
 - transport
 - dumping
 - compaction
 - surface finish
- risk factors, including human health and environmental damage
- environmental and biosecurity impacts and controls for constructing conservation earthworks.

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 at least one conservation site for earthworks, or in an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - machinery and equipment suitable for conservation earthworks

- personal protective equipment
- specifications:
 - workplace documents such as policies, procedures, processes
 - manufacturer operating instructions for equipment and machinery
 - workplace instructions, plans and specifications
- relationships:
 - work team, supervisor.

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

Links

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