



Australian Government

Department of Education, Employment and Workplace Relations

AHCSAW301A Construct conservation earthworks

Release: 1

AHCSAW301A Construct conservation earthworks

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the construction of conservation earthworks and defines the standard required to: determine job requirements from plans and specifications; assess machinery and equipment requirements; construct planned earthworks; apply final finishing techniques.
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Application of the Unit

Application of the unit	This unit applies to workers who use specialised earthmoving techniques completed to fine tolerances. Construction is often carried out 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 use and operation of machinery and equipment used to construct these works is covered by separate units.
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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. Prepare for construction	1.1. Confirm construction details and sequence. 1.2. Identify and locate worksite, site indicators and survey pegs. 1.3. Confirm work readiness of machinery and equipment. 1.4. Assess and minimise risks to others and the environment. 1.5. Select and use appropriate personal protective equipment. 1.6. Verify that equipment and attachments match terrain and program tasks.
2. Carry out work	2.1. Follow industry endorsed earthwork methods and patterns for specific machines. 2.2. Monitor and maintain optimum machinery loads in accordance with prevailing conditions. 2.3. Ensure that safe machinery operating techniques are deployed to match terrain, site conditions other operators and workers. 2.4. Ensure that excavation, transport, dumping and compaction of material is conducted in accordance with industry practice.
3. Apply finish techniques	3.1. Finish batters and surfaces in accordance with job requirements and industry practice. 3.2. Retain site features and vegetation in accordance with work plan/schedule. 3.3. Clear site and remove debris in accordance with work plan/schedule. 3.4. Complete topsoiling of disturbed areas and surfaces in accordance with industry standards and plan/schedule.
4. Finalise work	4.1. Complete work records. 4.2. Clean and store Personal Protective Equipment (PPE) and application equipment in accordance with manufacturer's specification and Occupational Health and Safety (OHS) requirements.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- identify hazards and implement safe operating procedures
- prepare for construction
- carry out planned earthworks and minimise damage to natural areas
- apply finishing techniques
- use literacy skills to read, interpret and follow organisational policies and procedures, follow sequenced written instructions, record accurately and legible information collected and select and apply procedures for a range of tasks
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning techniques, active listening, clarifying information and consulting with supervisors as required
- use numeracy skills to estimate, calculate and record routine workplace measures
- use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- erosion and sediment control standards and principles
- erosion control and design principles
- natural area protection (particularly topsoil) and rehabilitation principles
- soils and soil formation
- principles of conservation earthwork construction including catchment management and soils
- earthmoving principles
- levels and levelling
- natural area protection (including topsoil) and rehabilitation
- types and application of personal protective equipment
- legislation and regulations including Occupational Health and Safety (OHS) in relation to conservation earthwork construction
- risk factors including human health, environmental damage
- erosion and sedimentation control principles and practices
- environmental impacts and controls for constructing conservation earthworks
- OHS and environmental legislative and enterprise requirements.

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"> • determine job requirements from plans and specifications • assess machinery and equipment requirements • construct planned earthworks • apply final finishing techniques.
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.	
Earthworks may include:	<ul style="list-style-type: none"> • the range of conservation earthworks on rural lands including: <ul style="list-style-type: none"> • contour banks • waterways • dams • drainage structures • This unit does not include construction of access tracks or seismic lines, maintenance of fire breaks or land clearing.

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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