



Australian Government

Department of Education, Employment and Workplace Relations

AHCDRG302A Measure drainage system performance

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of measuring the performance and efficiency of a drainage system and defines the standard required to: identify and correcting system problems; measure, record and report soil moisture, salinity and water table depth to determine system performance and efficiency; apply measuring and testing techniques; record and report system performance; use computers for recording and reporting drainage system data.
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Application of the Unit

Application of the unit	This unit is likely to be carried out under routine supervision within enterprise guidelines.
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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. Assess drainage and collection systems	<p>1.1. A visual inspection is undertaken to determine damaged or broken components and results are recorded in accordance with Occupational Health and Safety (OHS) and enterprise policy and procedures.</p> <p>1.2. Areas being drained are inspected for signs of water pooling and problems are recorded in accordance with OHS and enterprise policy and procedures.</p> <p>1.3. Measurements are taken with appropriate equipment to determine drainage performance.</p> <p>1.4. Drainage/tail water quality is measured in accordance with OHS and enterprise policy and procedures.</p> <p>1.5. Water table depth is measured where required in accordance with OHS and enterprise policy and procedures.</p> <p>1.6. Soil salinity is measured where required in accordance with OHS and enterprise policy and procedures.</p> <p>1.7. Factors external to the system, which may cause interference, are identified and recorded in accordance with OHS and enterprise policy and procedures.</p>
2. Monitor supply of equipment and spare parts	<p>2.1. Supply and part usage are recorded in accordance with enterprise policy and procedures.</p> <p>2.2. Purchases of spare parts and materials are within budget constraints.</p> <p>2.3. Parts requirements outside of budget constraints are reported.</p> <p>2.4. Purchases and orders are recorded in accordance with enterprise procedures and systems.</p>
3. Record and report system performance status	<p>3.1. Water quality is recorded in accordance with enterprise procedures.</p> <p>3.2. Water table depth, soil moisture and salinity are recorded in accordance with enterprise procedures.</p> <p>3.3. Strategies that minimise the negative environmental impacts and maximise the positive impacts of the drainage system, are documented.</p>

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 work procedures
- apply measuring and testing techniques
- identify adverse environmental impacts of drainage systems and appropriate remedial action
- use computers for recording and reporting drainage system data
- implement and follow relevant enterprise OHS and environmental policies and procedures
- 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

- OHS guidelines
- measuring and monitoring procedures for factors contributing to drainage system performance
- positive and negative environmental impacts of drainage systems
- water table and salinity measures
- water quality monitoring methods and techniques
- soil moisture measurement procedures
- water authority standards and procedures
- enterprise policies and procedures
- environmental role of drainage systems.

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

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:

- identify and correcting system problems
- measure, record and report soil moisture, salinity and water table depth to determine system performance and efficiency
- apply measuring and testing techniques
- record and report system performance
- use computers for recording and reporting drainage system data.

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.

Drainage systems may include:

- surface drains
- culverts
- mole drains
- sand slit
- sub-surface traps
- pit and trap systems
- dune and swale systems
- reed beds
- water-recycling pumps and baffles.

Unit Sector(s)

Unit sector	Drainage
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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