



Australian Government

AHCIRG443 Supervise irrigation system maintenance

Release: 1

AHCIRG443 Supervise irrigation system maintenance

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 4.0.

Application

This unit of competency describes the skills and knowledge required to develop an irrigation system maintenance program, supervise irrigation maintenance, maintain testing equipment, supervise pest and weed control in an irrigated area and complete irrigation system maintenance records.

The unit applies to individuals who apply specialised skills and knowledge to the supervision of irrigation system maintenance and have responsibility for the output of others. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

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

Pre-requisite Unit

Nil

Unit Sector

Irrigation (IRG)

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. Develop a maintenance program for an irrigation system	1.1 Establish the maintenance requirements for the irrigation site, components and structures 1.2 Determine the frequency of maintenance activities required and develop a schedule 1.3 Identify and quantify total maintenance costs

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Assess the workplace health and safety risks associated with the maintenance program and implement suitable controls 1.5 Minimise environmental impacts of irrigation system maintenance activities 1.6 Develop a system for reporting maintenance activities
2. Supervise maintenance of irrigation components	2.1 Develop maintenance checklists for irrigation components 2.2 Monitor component operation, identify operating faults and take appropriate action 2.3 Identify and investigate abnormal operation or frequent and recurring breakdowns and organise maintenance as required 2.4 Identify situations requiring expert advice seek and specialist assistance 2.5 Review equipment condition routinely to ensure and maintain efficient operations
3. Carry out maintenance of testing equipment	3.1 Perform preventative maintenance on testing equipment 3.2 Identify and report equipment wear and faults 3.3 Perform minor repairs within limits of authorisation 3.4 Replace defective parts and make adjustments 3.5 Seek expert help where difficulties are encountered 3.6 Update maintenance and calibration records
4. Identify weed or pest infestation and seek specialist advice	4.1 Identify and report weed or pest infestation 4.2 Seek specialist advice on weed or pest infestation 4.3 Ensure weed or pest control methods are scheduled at the optimum time that will have minimal damage to the crop 4.5 Maintain infestation and treatment records
5. Complete records of irrigation system maintenance	5.1 Maintain maintenance activity records 5.2 Assess maintenance work results against the maintenance program

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	Identify and interpret information regarding supervising irrigation system maintenance
Oral communication	Use clear language to consult with specialist technical personnel
Numeracy	Estimate and calculate maintenance costs for material requirements, equipment, staff and specialist technical personnel
Navigate the world of work	Identify and describe own workplace requirements, including safety requirements, associated with own role and area of responsibility
Technology	Use of technology to record data electronically

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCIRG443 Supervise irrigation system maintenance	AHCIRG432 Supervise irrigation system maintenance	Performance criteria clarified Foundation skills added Assessment requirements updated	Equivalent unit

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 AHCIRG443 Supervise irrigation system maintenance

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 4.0.

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 supervised irrigation system maintenance on at least one occasion and has:

- developed workplace procedures for pre-season, irrigation and post-season maintenance
- carried out visual checks for blockages or signs of wear in components
- checked connections and controllers
- checked sprinkler output and function
- confirmed operational pressures
- ensured proper operation of automatic flush valves
- inspected irrigation systems
- serviced irrigation equipment
- pressure tested systems
- tested emitter output and function
- tested irrigation equipment
- maintained testing equipment.

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:

- principles and practices of irrigation system maintenance supervision
- operation and maintenance requirements
- workplace procedures for pre-season, irrigation and post-season maintenance
- pre and post-season maintenance procedures
- workplace health and safety hazards and safe work procedures
- environmental impacts of irrigation maintenance
- drainage systems
- system components

- system inspection
- operating pressures and output
- pumping and distribution systems
- distribution uniformity
- visual checks for blockages or signs of wear in components
- equipment testing
- pressure testing procedures.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - irrigation system testing equipment and manual specifications:
 - workplace procedures applicable to health and safety in the workplace and irrigation system maintenance
- relationships:
 - specialist technical personnel
- timeframes:
 - according to the job requirements.

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>