



Australian Government

AHCIRG508 Design irrigation system maintenance and monitoring programs

Release: 1

AHCIRG508 Design irrigation system maintenance and monitoring programs

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 design irrigation system maintenance and monitoring programs.

The unit applies to individuals who apply specialised skills and knowledge to the design of irrigation system maintenance and monitoring programs, and take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information and analyse, design and communicate solutions to sometimes complex problems.

No licensing, legislative or certification requirements 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. Design an irrigation system maintenance program	1.1 Specify resources needed to perform maintenance tasks 1.2 Specify repairs, replacements and servicing requirements for equipment and machinery 1.3 Specify activities required to maintain the irrigation site, system hardware and water quality

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 Analyse manufacturer operating manuals and use as guidance to specify maintenance activities, schedule and skills required 1.5 Take into account water supply authority constraints and requirements for water and maintenance when scheduling system maintenance program activities 1.6 Determine labour and workplace health and safety requirements for each activity and record 1.7 Ensure weed control, water storage and treatment maintenance form an integral part of the system maintenance program 1.8 Specify strategies for dealing with and minimising environmental impacts and maximising positive impacts of irrigation, drainage and water treatment systems 1.9 Document irrigation system maintenance program
2. Design a monitoring and scheduling program	2.1 Integrate procedures for monitoring and recording system hardware use and performance into the monitoring and scheduling program 2.2 Integrate procedures for scheduling, monitoring and recording water use 2.3 Develop procedures for monitoring and recording operating costs 2.4 Develop water restriction contingency plans 2.5 Document irrigation system monitoring and scheduling 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 design requirements for irrigation system maintenance and monitoring programs - Interpret manufacturer operating manual information related to irrigation system maintenance and monitoring program design - Interpret water quality guidelines for fresh and marine water, workplace health and safety and environmental protection

Skill	Description
	legislation, codes of practice and workplace requirements related to irrigation system monitoring and maintenance programs
Navigate the world of work	Identify and describe own workplace requirements, including safety requirements, associated with own role and area of responsibility

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCIRG508 Design irrigation system maintenance and monitoring programs	AHCIRG502 Design irrigation system maintenance and monitoring programs	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 AHCIRG508 Design irrigation system maintenance and monitoring programs

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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 designed an irrigation system maintenance and monitoring program on at least one occasion and has:

- identified and scheduled irrigation system maintenance and monitoring activities
- analysed and organised information
- designed scheduling and recording procedures
- developed and included relevant workplace health and safety and environmental procedures
- identified adverse environmental impacts of irrigation, drainage and water treatment activities and taken appropriate remedial action.

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:

- maintenance and monitoring design requirements
- drainage and water treatment using water from any ground or underground source
- irrigation, drainage and water treatment maintenance activities
- water quality guidelines for fresh and marine water
- water supply authority constraints
- workplace health and safety and environmental protection legislation, regulations, codes of practice and workplace requirements applicable to monitoring and maintenance programs
- environmental impacts of irrigation.

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
- specifications:
 - manufacturer operation manuals relevant to irrigation system maintenance and monitoring program design
 - water quality guidelines for fresh and marine water
 - workplace health and safety and environmental protection legislation, regulations, codes of practice and workplace requirements applicable to monitoring and maintenance programs
- 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

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