



Australian Government

AHCIRG502 Design irrigation system maintenance and monitoring programs

Release: 1

AHCIRG502 Design irrigation system maintenance and monitoring programs

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design irrigation system maintenance and monitoring programs.

It applies to individuals who analyse information and exercise judgement to complete a range of skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational 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

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Design an irrigation system maintenance program	1.1 Specify the resources needed to perform maintenance tasks 1.2 Specify repairs, replacements and servicing requirements for all equipment and machinery 1.3 Specify activities required to maintain the irrigation site, system hardware and water quality 1.4 Analyse manufacturer's operating manuals and use as guidance to specify maintenance activities, schedule and skills required

Element	Performance criteria
	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 work 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 to ensure that negative impacts of irrigation, drainage and water treatment systems are minimised, and positive impacts are maximised
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 Include procedures for monitoring and recording operating costs 2.4 Develop contingency plans in the event of water restrictions being imposed

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG502A Design irrigation system maintenance and monitoring programs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG502 Design irrigation system maintenance and monitoring programs

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Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- analyse and organising information
- design scheduling and recording procedures
- develop and include relevant work health and safety and environmental procedures
- identify adverse environmental impacts of irrigation, drainage and water treatment activities and taking appropriate remedial action
- identify and scheduling activities

Knowledge Evidence

The candidate must demonstrate knowledge of:

- drainage and water treatment using water from any ground or underground source
- environmental impacts of irrigation
- irrigation, drainage and water treatment maintenance activities
- maintenance and monitoring design requirements
- water quality guidelines for fresh and marine water including but not limited to ANZECC 1999
- water supply authority constraints
- work health and safety and environmental protection legislation, codes of practice and enterprise requirements for monitoring and maintenance programs

Assessment Conditions

Assessors must satisfy current standards for RTOs.

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