



Australian Government

Assessment Requirements for AHCIRG445 Manage surface irrigation systems

Release: 1

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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 managed the operations of a surface irrigation system on at least two occasions and has:

- developed procedures and provided staff training to:
 - perform running repairs on irrigation delivery and drainage systems
 - carry out shut down procedures
 - check pressure at the head works and control valves
 - set up pipes, system equipment and outlets
 - use siphons
- developed procedures for surface irrigation system start up, shutdown and operational checks
- identified and recorded variations in water flow and distribution
- measured and recorded water flow rates.

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 surface irrigation management
- main components of surface irrigation systems
- water in soils and plants
- pump types used in surface irrigation systems their operation and operating requirements
- physical soil characteristics such as infiltration rate, water holding capacity and wetted volume in the root zone
- soil moisture testing techniques
- set up of headwater, tail water, channels and beds
- critical measures for moisture availability, including:
 - evapotranspiration

- field capacity
- infiltration rates
- readily available water
- water holding capacity
- wilting point
- calculating irrigation efficiency using records to review an irrigation system.

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:
 - surface irrigation system equipment and tools
 - surface irrigation system measuring, and recording equipment and manual
- specifications:
 - industry energy and water efficiency benchmarks
- timeframes:
 - according to the job requirements
- relationships
 - staff interactions.

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>