



Australian Government

AHCIRG441 Evaluate water supply for irrigation

Release: 1

AHCIRG441 Evaluate water supply for irrigation

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 determine irrigation water needs, assess water quality of water source, determine cost and availability of alternative water sources and complete water sourcing or acquisition arrangements.

The unit applies to individuals who apply specialised skills and knowledge to evaluate water supply for irrigation. This includes applying and communicating non-routine technical solutions to predictable and unpredictable 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. Determine water needs for irrigation	1.1 Determine the water needs of plants to be irrigated 1.2 Calculate the permeability of the soil and deep drainage losses 1.3 Calculate evapotranspiration rates through the growing season 1.4 Calculate soil water deficits throughout the season based on expected rainfall 1.5 Calculate the amount of irrigation water required through the

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	growing season
2. Assess a water source for water quality	2.1 Test and record water source for electrical conductivity and analyse results 2.2 Collect water samples for testing and interpret results
3. Determine cost and availability of alternative water sources	3.1 Evaluate water availability and access requirements for water sources 3.2 Cost capital expenditure requirements 3.3 Cost operating expenditure requirements 3.4 Investigate regulatory requirements for sourcing irrigation water and incorporate into business planning
4. Complete water sourcing or acquisition arrangements	4.1 Make contractual arrangements for sourcing of water 4.2 Plan for short term purchasing or selling of water depending on seasonal conditions if necessary

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 water supply for irrigation
Writing	Record scheduling system information for each irrigation, significant rainfall events and other appropriate parameters
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
AHCIRG441 Evaluate water supply for irrigation	AHCIRG426 Evaluate water supply for irrigation	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>