



Australian Government

Assessment Requirements for AHCIRG441 Evaluate water supply for irrigation

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 evaluated water supply for irrigation on at least one occasion and has:

- estimated the irrigation requirements of plants
- calculated water losses in an irrigation system
- interpreted results for electrical conductivity of irrigation water
- taken water samples
- calculated capital and operating expenditure for a water supply system
- compared costs for different water sources.

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:

- plant water requirements in terms of water quality and frequency of supply
- salinity and composition impacts on soil structure and plant growth
- soils and water, soil moisture retention and movement, plant root zones and development, infiltration and leaching
- climatic factors in irrigation development, rainfall, evaporation, evapotranspiration and hydrology
- irrigation drainage, seepage, surface and subsurface drainage systems
- irrigation scheduling, soil moisture measurement
- efficiency of irrigation systems and long-term viability
- management planning and operation of water allocations
- cost benefit analysis
- capital and operating expenditure calculations to source water
- operations and maintenance requirements
- legislation relevant to the supply of water for 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
- resources, equipment and materials:
 - water source sampling and testing equipment and procedures
 - legislation relevant to the supply of water for irrigation
- 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>