



Australian Government

Assessment Requirements for AHCIRG426 Evaluate water supply for irrigation

Release: 1

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Modification History

| Release Number | TP Version | Comments |
|----------------|------------|-----------------|
| 1 | AHCv1.0 | Initial release |

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 results for electrical conductivity and ionic composition of irrigation water
- apply principles of hydraulics to the selection of irrigation systems, legal access and structures
- calculate capital and operating expenditure for a water supply system
- calculate water losses in an irrigation system
- compare costs for different water sources
- estimate the irrigation requirements of plants
- take water samples

Knowledge Evidence

The candidate must demonstrate knowledge of:

- capital and operating expenditure calculations to source water
- climatic factors in irrigation development, rainfall, evaporation, evapotranspiration and hydrology
- conveyance and disposal of drained effluent
- cost benefit analysis
- efficiency of irrigation systems and long-term viability
- environmental and energy-use implications of resource utilisation and development
- irrigation drainage, seepage, surface and subsurface drainage systems
- irrigation scheduling, soil moisture measurement
- management planning and operation of water allocations
- operations and maintenance requirements
- plant physiology and plant water use, transpiration crop water requirements in terms of water quality and quantity

- plant water requirements in terms of water quality and frequency of supply
- re-use systems, management of irrigation systems
- salinity and ionic composition impacts on soil structure and plant growth
- selection of irrigation systems
- soils and water, soil moisture retention and movement, plant root zones and development, infiltration and leaching
- types of irrigation systems
- water legislation
- water supply potential for the development of irrigation systems

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

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