



Australian Government

Assessment Requirements for AHCDRG502 Design drainage 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 designed at least one drainage system on at least one occasion and has:

- developed specifications for water transfer, recharge, reuse and harvesting systems
- identified design requirements
- completed hydrological calculations
- identified performance indicators for the drainage system
- predicted volumes and rates of surface run-off and system leakage
- identified adverse environmental impacts of drainage and appropriate remedial action
- assessed the requirements for pumping capacity in a drainage system and power requirements
- developed capital and operating budgets.

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 drainage design, including:
 - developments in drainage technology
 - leachate interception and dewatering systems
 - leaching fractions and salt movements prediction
 - monitoring systems
 - the design processes
 - water transfer, recharge, reuse and harvesting systems
- local, state and federal workplace health and safety and environmental protection legislation, regulations, codes of practice and workplace requirements applicable to drainage system design
- budgeting, contract development and obligations

- cost/benefit analysis.

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:
 - regional geology and geography information
 - drainage system site
 - industry energy and water efficiency benchmarks
 - local, state and federal workplace health and safety and environmental protection legislation, regulations, codes of practice and workplace requirements applicable to drainage system design
 - drainage system water and soil testing equipment and procedures
- 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>