



Australian Government

CPCCBBC4019 Apply sustainable building design principles to water management systems

Release: 2

CPCBC4019 Apply sustainable building design principles to water management systems

Modification History

Release 2 Updated reference to general construction induction training program.

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.

Supersedes and is equivalent to CPCBC4019A Apply sustainable building design principles to water management systems. Updated to meet the Standards for Training Packages 2012.

Application

This unit of competency specifies the skills and knowledge required to apply sound water management principles as part of the implementation of sustainable building and construction processes.

It covers legislative and planning requirements, identifying and applying opportunities for improved water management, and promoting best practice in water management to meet the demand for sustainable buildings and environmentally friendly developments.

This unit of competency applies to builders, site supervisors and related construction industry professionals who apply sustainable water management systems to residential or commercial building.

It applies to National Construction Code (NCC) classifications:

- Residential - Class 1 and 10 buildings, maximum two storeys
- Commercial - Class 2 to 9, Type C constructions.

This unit of competency is suitable for people with specialised knowledge, completing routine and non-routine tasks and using their own judgement to deal with predictable and sometimes unpredictable problems.

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of CPCWHS1001 Prepare to work safely in the construction industry meets this requirement.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Building and Construction

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe what needs to be done to demonstrate achievement of the element.
1 Identify legislative and planning requirements.	1.1 Identify government legislation and local council requirements for sustainable water systems as part of the building and construction design process. 1.2 Confirm design and use of water management systems requirements with client. 1.3 Seek expert plumbing advice as part of the planning process. 1.4 Consult the National Construction Code (NCC), Australian Standards and other codes and standards to identify the implications for the building project. 1.5 Identify and address environmental and resource efficiency issues.
2 Identify and apply opportunities for improved water management.	2.1 Identify and appraise the impact of client and resident behaviour on effective water management and use. 2.2 Identify, evaluate and apply opportunities to select efficient water management fixtures and appliances as part of the building design. 2.3 Calculate and communicate installation and ongoing usage costs of efficient water management fixtures and appliances to the client. 2.4 Select efficient water management fixtures and appliances as negotiated.
3 Apply sound water management principles to the site and its	3.1 Contain soil and sediment as part of site preparation and management. 3.2 Apply sound waste management practices on site.

landscaping.	3.3	Put in place and use effective sediment control barriers.
	3.4	Stockpile and retain topsoil and local rocks for later reuse.
	3.5	Optimise reuse and recycling of water in the landscape design.
4 Promote best practice in water management.	4.1	Select, locate and install tanks to optimise the reuse of roof water.
	4.2	Identify costs for construction of reuse of grey water facilities and negotiate with the client.
	4.3	Identify costs and performance characteristics of various materials used in the installation of water management systems and negotiate selection of materials with client.

Foundation Skills

As well as the foundation skills explicit in the performance criteria of this unit, candidates require:

- technology skills to:
 - use digital tools and devices to communicate and collaborate effectively with others
 - use equipment and programs to access and extract information and develop relevant documentation.

Unit Mapping Information

Supersedes and is equivalent to CPCCBBC4019A Apply sustainable building design principles to water management systems

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCBC4019 Apply sustainable building design principles to water management systems

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Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by applying sustainable building design principles to the water management system of one Class 1 or 10 building, up to two storey or one Class 2 to 9, Type C building project.

In doing this, the candidate must:

- source and analyse legislative and planning requirements for water management design
- apply the principles of effective water use, recycling and reusing in the planning process
- calculate costs and savings of implementing an alternative water management system
- produce work plans that reflect effective water management.

Knowledge Evidence

To be competent in this unit, a person must demonstrate knowledge of:

- building and construction codes and standards
- the National Construction Code (NCC)
- government building and construction legislation
- environmental requirements
- sustainability principles and concepts
- building and construction industry contracts
- construction plans and specifications
- water management systems:
 - grey water recycling
 - roof water reuse
- fixtures and appliances:
 - dishwashers
 - showerheads (low flow and maxi flow)

- spas
- taps
- toilets
- washing machines
- waste management practices:
 - run-off from the cleaning up of equipment:
 - painting
 - concreting
 - plastering
 - brickwork
 - on-site waste management
- workplace safety requirements
- workplace procedures.

Assessment Conditions

Assessors must satisfy the requirements for assessors listed in the Standards for Registered Training Organisations.

Assessment can be undertaken in the workplace or in a simulated workplace environment.

A simulated environment is one that realistically replicates workplace conditions, materials and equipment, interactions with others and workplace irregularities, and which meets industry standards for safety and environmental practices.

Candidates must be provided with:

- relevant government building and construction regulations
- current building and construction codes and standards
- the NCC
- construction plans, site plans and specifications
- policies and procedures
- environmental, sustainability and other quality documentation to undertake the performance criteria and evidence requirements
- digital technology devices, applications and software to source and document information.

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