



**Australian Government**

# **AHCPER309 Install and maintain permaculture water systems**

**Release: 1**

## AHCPER309 Install and maintain permaculture water systems

### Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

### Application

This unit provides the skills and knowledge to install and maintain permaculture water systems, organise resources for installation work, set out and prepare site, install water system components, complete installation work, commission water system systems and communicate with work team members, supervisors, contractors and consultants.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who work under broad direction and take responsibility for their own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

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

### Pre-requisite Unit

Nil.

### Unit Sector

Permaculture (PER)

### Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Organise resources for installation work	1.1 Identify the construction site and construction method for the permaculture water system according to the permaculture plan 1.2 Select materials, tools, equipment and machinery, water storage, movement and filtering systems according to the permaculture design requirements 1.3 Check parts and equipment delivered to the site according to

Element	Performance criteria
	<p>system drawings and specifications on the permaculture plan</p> <p>1.4 Check water supply to ensure that it is compatible with system specifications</p> <p>1.5 Carry out pre-operational and safety checks on tools, equipment and machinery according to manufacturer's specifications</p> <p>1.6 Select, use and maintain suitable safety and personal protective equipment</p>
2. Set out and prepare site	<p>2.1 Measure and mark out permaculture water system lines or lay out in accordance with the permaculture plan</p> <p>2.2 Dig trenches, where required, at the specified depth without damage to services, facilities, features and established plants</p> <p>2.3 Ensure that equipment operation and work practices conform with OHS requirements</p> <p>2.4 Observe any regulations and legislative requirements relevant to the situation</p> <p>2.5 Consider the needs of other stakeholders while setting out and preparing the site for permaculture water systems</p>
3. Install permaculture water systems	<p>3.1 Interpret the permaculture plan and, where applicable, supervise and monitor work by contractor</p> <p>3.2 Assemble and connect parts of irrigation systems, where used, according to manufacturer's specifications and the permaculture plan</p> <p>3.3 Install and adjust pump fittings and valves, where used according to manufacturer's specifications and the permaculture plan</p> <p>3.4 Maintain a clean and safe work area while installation work is carried out</p> <p>3.5 Check that works can be carried out without a licensed plumber and direct work to licensed individuals where required.</p>
4. Complete installation work	<p>4.1 Finish off earthworks to permaculture plan specifications</p> <p>4.2 Check the system configuration and capacity matches the installation plan</p> <p>4.3 Remove or dispose of waste material from the site, and restore site to original state in an environmentally aware and safe manner</p> <p>4.4 Clean, maintain and store tools, equipment and machinery</p>
5. Commission permaculture water systems	<p>5.1 Prime, start up and flush irrigation and pump systems, where installed, in accordance with the operation manual</p> <p>5.2 Identify and correct any operating faults according to operations manual</p> <p>5.3 Test, calibrate and monitor equipment, where used, according</p>

Element	Performance criteria
	to manufacturer's specifications 5.4 Record or report work outcomes, where appropriate
6. Monitor and maintain permaculture water systems	6.1 Regularly check permaculture water systems and monitor for optimum performance 6.2 Carry out routine maintenance procedures on permaculture water systems 6.3 Carry out repairs on permaculture water systems as required 6.4 Install erosion and sediment control measures, if required, in accordance with manufacturer's recommendation and the permaculture plan

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

New unit - equivalent to QLD843WAT09C.

## Links

Companion Volume implementation guides are found in VETNet -

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