



**Australian Government**

# **AHCPER501 Carry out permaculture field research**

**Release: 1**

# AHCPER501 Carry out permaculture field research

## Modification History

| Release | TP Version | Comment         |
|---------|------------|-----------------|
| 1       | AHCv1.0    | Initial release |

## Application

This unit of competency describes the skills and knowledge required to undertake field research relevant to permaculture systems and projects. It requires the ability to design technical and social field research, prepare for field research, conduct field research, assess research outcomes and report on research relevant to permaculture systems and projects.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

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. Scope permaculture field research      | 1.1 Identify challenges and opportunities in permaculture projects or systems that elicit research questions<br>1.2 Identify and justify the purpose of field research<br>1.3 Define and justify field research topic, question or hypothesis<br>1.4 Assess suitability of field research subject in relation to |

| Element                                              | Performance criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                      | permaculture principles, practices and ethics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2. Design permaculture field research                | 2.1 Design field research plan<br>2.2 Identify relevant information sources and review relevant and credible literature related to the research topic<br>2.3 Determine appropriate research methods for data collection<br>2.4 Identify reference groups for field research, if applicable<br>2.5 Locate field research sites according to design requirements<br>2.6 Identify site factors where appropriate and incorporate into research<br>2.7 Create a budget for field research plan<br>2.8 Identify and obtain approvals and permits required                                                                  |
| 3. Prepare to conduct field research                 | 3.1 Identify work health and safety hazards associated with the implementation of field research<br>3.2 Identify and document social and environmental implications associated with field research<br>3.3 Identify materials, tools, equipment and machinery required for field research, confirm cost and availability with suppliers, contractors and appropriate personnel<br>3.4 Establish and prepare field work sites for implementation of field research using the specifications of the field work design<br>3.5 Organise access to field research subjects at times and places suitable for data collection |
| 4. Conduct field research                            | 4.1 Undertake data collection throughout the course of field research according to the specifications of research design plan and chosen methodologies<br>4.2 Monitor field research for accuracy and compliance to research design<br>4.3 Record all research data accurately using the specifications of the research design                                                                                                                                                                                                                                                                                        |
| 5. Assess practical application of research outcomes | 5.1 Analyse research data for categories, themes, trends, patterns and significant information<br>5.2 Create quantitative and qualitative records of research data analysis<br>5.3 Synthesise research findings and draw conclusions based on evidence and reasoned arguments<br>5.4 Assess the meaning of research outcomes for practical application, based on conclusions drawn from the field research                                                                                                                                                                                                            |
| 6. Report field research findings                    | 6.1 Determine desired actions from field research<br>6.2 Determine target audience for field research reporting<br>6.3 Draft research report and obtain feedback                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Element | Performance criteria                            |
|---------|-------------------------------------------------|
|         | 6.4 Publish and circulate field research report |

## 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 QLD125RCH01B.

## Links

Companion Volume implementation guides are found in VETNet -

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

# Assessment Requirements for AHCPER501 Carry out permaculture field research

## Modification History

| Release | TP Version | Comment         |
|---------|------------|-----------------|
| 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:

- formulate and justify research questions
- design a field research plan
- conduct research and evaluate information
- enter, analyse and organise data quantitatively and qualitatively in charts, tables and graphs
- produce written reports on research outcomes and provide conclusions based on appropriate evidence and reasoned arguments

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles, practices and ethics, such as:
  - topics for field research
  - people or groups of people participating in or related to permaculture projects
  - people or groups of people participating in or related to other topics which themselves relate to permaculture
  - systems and/or technical elements of permaculture systems
- animals-related studies (including insects, reptiles, birds and fish)
- plant-related studies
- studies of integrated plant and animal systems
- appropriate technologies or technological solutions
- appropriate energy generation, storage and capture
- water treatment, catchment and storage systems
- natural systems

- environmental issues
- product comparisons
- field research methods, such as:
  - group and individual interviews
  - dialogue and storytelling
  - use of communications technology
  - records and testimonials
  - electronic recordings
  - questionnaires
  - statistical sampling
  - observation
  - surveys
- research methodologies, such as:
  - action research
  - needs studies
  - case studies
  - statistical sampling
- field research plan design – a staged sequence of steps and accompanying methodologies for obtaining answers to research questions
- permaculture systems implementation and management techniques and practices
- growth habits, physiological properties and taxonomic specification of animals and plants involved in permaculture
- participants and stakeholders of permaculture systems and projects, such as:
  - those who will use the research to influence decision making and policy
  - those who will benefit from the research
  - the researchers
  - ethics committees
  - anyone who is researched
- scientific and mathematical research approaches, data collection, processing and analytical techniques and procedures
- auditing and reporting procedures
- research planning and budgeting

## Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also have a nationally accredited Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

## Links

Companion Volume implementation guides are found in VETNet -

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