



Australian Government

AHCSOL402 Develop a soil use map for a property

Release: 1

AHCSOL402 Develop a soil use map for a property

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to develop a soil use map for a property.

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. All work is carried out to comply with workplace procedures.

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

Soils and media [SOL]

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. Collect information for soil mapping	1.1 Confirm soils samples collected for off-site assessment by soil testing agencies used recommended procedures 1.2 Collect soil physical, chemical and biological information 1.3 Determine the acceptable soil parameters for specified plants from published data and records 1.4 Collect information about areas of cultural significance and habitats of biodiversity on the property

Element	Performance criteria
	1.5 Collate research outcomes
2. Analyse soil information	2.1 Classify the soil types of the sample area according to standards for soil classification 2.2 Compare collected results with established parameters for land use and production 2.3 Evaluate soil characteristics to determine whether they can be altered to meet land use needs 2.4 Determine readily available water values for irrigation sites
3. Plot topography and soil survey data on property map	3.1 Map interpreted results 3.2 Identify potential uses of the soil for purposes of land classing, land capability, areas of cultural significance and habitats of biodiversity 3.3 Define property boundaries and features 3.4 Identify paddocks or irrigation areas 3.5 Plot contour or spot level information 3.6 Plot soil sampling sites on map 3.7 Determine soil profile and irrigation characteristics for each sampling site and irrigation area and index to the map 3.8 Index the Readily Available Water values for irrigation sites 3.9 Plot areas of specific concern on the map and index descriptions to the map

Foundation Skills

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

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSOL402A Develop a soil use map for a property.

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 AHCSOL402 Develop a soil use map for a property

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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 survey results
- determine soil characteristics
- identify adverse environmental impact of irrigation activities and take appropriate action
- interpret soil analyses results
- perform a soil survey
- plot topography and soil survey data on a property map

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices for developing soil use maps
 - environmental impacts of irrigation, using water from any ground or underground source
 - methods and techniques of soil sampling
 - nutrient availability in soils
 - physical and chemical properties of soils
 - readily available water
 - soil analyses results
 - soil quality factors
 - soil types and profiles
 - soil water retention testing techniques
 - water table and salinity

Assessment Conditions

Assessors must satisfy current standards for RTOs.

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