



Australian Government

AHCDES402 Apply sustainability principles to landscape design

Release: 1

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Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 7.0.

Application

This unit of competency describes the skills and knowledge required to analyse landscape designs for the application of sustainability principles and make recommendations for improving sustainability.

The unit applies to individuals who apply specialist skills and knowledge to application of sustainability principles to landscape design. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

All work is carried out to comply with workplace procedures, health and safety in the workplace requirements, legislative and regulatory requirements, and sustainability practices.

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

Pre-requisite Unit

Nil

Unit Sector

Design (DES)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Research the application of sustainability in landscape design	1.1 Research principles of sustainability and their application to landscape design 1.2 Identify legislation, standards, policies and procedures relevant to sustainable landscape design

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify processes and materials used in landscape design 1.4 Identify and determine sustainable design criteria used to assess the impacts of processes and materials 1.5 Analyse the impact of legislation, standards, policies and procedures on sustainable landscape design 1.6 Identify the ways in which alternative design strategies support the environment
2. Evaluate landscape designs for sustainability	2.1 Apply systems-based thinking to assess the impacts of processes and materials on the landscape design 2.2 Apply sustainable landscape design criteria to assess the impacts of processes and materials 2.3 Identify alternative design strategies to minimise the impacts of processes and materials 2.4 Analyse and evaluate alternative design strategies to determine sustainability outcomes
3. Make recommendations for improvement	3.1 Review the outcomes of the landscape evaluation to determine potential sustainability improvements 3.2 Document and present recommended improvements for feedback from key stakeholders 3.3 Review and respond to key stakeholder feedback 3.4 Incorporate agreed changes into final landscape design

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Identify and interpret information regarding legislation, standards, policies and procedures
Writing	Record sustainability improvements into landscape design information using correct conventions and terminology

Skill	Description
Oral communication	Initiate discussions with key stakeholders, using clear language and standard industry terminology to present findings, respond to feedback and agree on changes to landscape design

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCDES402 Apply sustainability principles to landscape design	Not applicable	The unit has been created to address an emerging skill or task required by industry	Newly created

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCDES402 Apply sustainability principles to landscape design

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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 applied sustainability principles to landscape design on at least one occasion, and has:

- analysed and applied the principles of sustainability in landscape design to evaluate designs and make recommendations on improving sustainability
- applied relevant workplace health and safety and environmental legislation, regulations and workplace procedures
- interpreted specifications and plans
- evaluated landscape designs and made recommendations for improvements
- sought, analysed and applied feedback from key stakeholders on recommendations to improve sustainability.

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 of sustainability and their application to landscape design, including:
 - environmental, ecological, economic and social resources relevant to sustainable design
 - sustainable use of resources in the landscape
 - materials commonly used in landscape design
 - systems-based thinking
 - cradle-to-cradle design, including life cycle mapping and assessment
 - alternative design strategies
- workplace health and safety and environmental legislation and regulations and workplace procedures relevant to sustainable landscape design
- sustainable design principles, including ensuring that natural and built landscape:

- preserves, improves and protects existing water catchments
- harvests water if appropriate
- minimises the depletion of materials and resources
- minimises the use of energy
- minimises land degradation
- attaches value to and preserves in-situ soils
- allows for carbon sequestration
- uses plants that contribute to and enhance the future environment
- maintains biodiversity through healthy ecosystems
- designs for habitat
- improves the wellbeing of humankind and all living organisms
- minimises waste.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - landscape designs
 - site information, documentation and data applicable to sustainable landscape design
- specifications:
 - legislation, standards, policies and procedures relevant to sustainable landscape design
 - workplace health and safety and environmental legislation and regulations and workplace procedures applicable to sustainable landscape design
- relationships:
 - key stakeholders
- timeframes:
 - according to job requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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