



Australian Government

ACMGEN404 Design, construct and maintain aquascapes

Release: 1

ACMGEN404 Design, construct and maintain aquascapes

Modification History

Release	Comments
Release 1	This version released with ACM Animal Care and Management Training Package Version 4.0.

Application

This unit of competency describes the skills and knowledge required to design, construct and maintain aquascapes for a range of aquariums, including ponds, waterfalls and water features.

This unit applies to individuals working in animal industry sectors where aquascapes are designed, constructed and maintained to house aquatic animals, which may include fish, aquatic invertebrates (including crustaceans and corals), amphibians and turtles. They analyse information and exercise judgement to complete a range of skilled activities and demonstrate in-depth knowledge in a specific technical area. They develop and communicate solutions for a range of commonly encountered problems.

All work must be carried out to comply with workplace procedures according to Commonwealth and state/territory health and safety and animal welfare regulations, legislation and standards that apply to the workplace.

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

Pre-requisite Unit

Nil

Unit Sector

General Animal Care (GEN)

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. Identify requirements of aquascape	1.1 Discuss types of aquaria and proposed species to be housed with client or manager

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify location and climatic conditions affecting design 1.3 Agree design concept with client or manager, and confirm special installation and maintenance requirements 1.4 Provide advice on suitability of species and location
2. Prepare aquascape design	2.1 Select appropriate heating, lighting and filtration according to design parameters 2.2 Select plants, features and substrate materials according to design parameters
3. Establish aquascape	3.1 Select and correctly use tools, equipment, materials and personal protective equipment appropriate for the job 3.2 Select or construct tank or pond and install substrate according to design specifications 3.3 Install and secure aquascape features and plants according to design specifications and workplace procedures 3.4 Conduct installation, testing and commissioning of lighting, heating and filtration systems according to manufacturer instructions 3.5 Introduce designated aquatic animals using low stress techniques 3.6 Collect, treat and dispose of or recycle waste from construction and installation according to workplace and environmental requirements 3.7 Clean worksite, tools and equipment, and return to operating order and store according to workplace requirements
4. Maintain aquascape	4.1 Discuss ongoing maintenance requirements and arrangements with client or carer 4.2 Conduct water sampling and testing according to species type and environmental requirements 4.3 Prove isolation of electrical equipment prior to maintenance using appropriate techniques, procedures and equipment 4.4 Carry out service and repairs according to manufacturer instructions and workplace procedures 4.5 Monitor and report on health of aquaria and plants 4.6 Identify complex faults and refer for specialist advice and remedial action according to workplace procedures 4.7 Maintain accurate records according to workplace procedures

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	Interpret symbols and abbreviations found in aquascape construction plans and drawings
Numeracy	- Calculate distance, angles, volume, weight, area, percentage, ratio, time and application rates - Identify basic geometric shapes and numerical abbreviations on a construction drawing - Calculate quantities and costs of materials required to construct aquascapes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ACMGEN404 Design, construct and maintain aquascapes	ACMCAS403 Design, construct and maintain aquascapes	Minor changes to performance criteria for clarity Assessment requirements updated	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b75f4b23-54c9-4cc9-a5db-d3502d154103>