



Australian Government

Department of Education, Employment and Workplace Relations

ACMCAS305A Maintain aquascapes and aquatic animals

Revision Number: 1

ACMCAS305A Maintain aquascapes and aquatic animals

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit of competency covers the process of monitoring illness and/or abnormal behaviour in aquatic animals, collecting and analysing water samples and administering treatments.</p> <p>Licensing, legislative, regulatory or certification requirements may apply to this unit in relation to the protection of reptiles and amphibians. Therefore, it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.</p>
------------------------	--

Application of the Unit

Application of the unit	<p>This unit is applicable to those working in the companion animal industry sector. It relates to the maintenance of aquascapes and aquatic animals, including fish, amphibians and some reptiles.</p> <p>In addition to legal and ethical responsibilities, all units of competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort is minimised.</p>
--------------------------------	---

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
-----------------------------	--

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Follow effective personal health management practices	<p>1.1. Personal hygiene and cleanliness standards are maintained in accordance with <i>occupational health and safety (OHS)</i> and organisational policies and procedures.</p> <p>1.2. <i>Disease agents</i> and their impact on aquatic animals are identified.</p> <p>1.3. Work practices are implemented to protect oneself from, and minimise spread of, <i>zoonotic diseases</i>.</p>
2. Identify unhealthy aquatic animals	<p>2.1. <i>Unhealthy</i> aquatic animals are identified and information is recorded in accordance with organisational policies and procedures.</p> <p>2.2. <i>Injured</i> aquatic animals are recognised and reported to supervisors.</p> <p>2.3. Aquatic animal <i>abnormal behaviour</i> and condition are recognised and reported to supervisors.</p> <p>2.4. Records for unhealthy aquatic animals are maintained in accordance with organisational policies and procedures.</p>
3. Sample, analyse and adjust aquascape water quality	<p>3.1. Water samples are collected using correct equipment, in accordance with organisational policies and procedures.</p> <p>3.2. Samples are <i>tested</i> using appropriate equipment in accordance with manufacturers' directions.</p> <p>3.3. Sampling results are recorded in accordance with organisational policies and procedures.</p> <p>3.4. <i>Water quality is adjusted</i> to better suit the requirements of the aquascape and species.</p> <p>3.5. Optimum water quality records for the aquascape and species are maintained in accordance with industry requirements.</p>
4. Administer aquatic animal treatments	<p>4.1. Broad categories of <i>parasitic infestations</i> and/or <i>viral, fungal and bacterial diseases</i> are identified.</p> <p>4.2. Appropriate and authorised <i>aquatic animal treatments</i> are administered in accordance with organisational policies and procedures.</p> <p>4.3. <i>Preventative medicine programs</i> for internal and external parasites are implemented in accordance with organisational policies and procedures.</p> <p>4.4. Treatments and medicines are correctly stored in accordance with organisational policies and</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>procedures and legislative requirements.</p> <p>4.5. Records for treatments and medicine programs are maintained in accordance with organisational policies and procedures and legislative requirements.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- adjust water quality and conditions to suit aquascape and species requirements
- administer appropriate and authorised aquatic animal treatments
- apply organisation policies, procedures and requirements
- complete relevant work-related documents
- employ safe and environmentally responsible organisational systems and procedures when working with and handling aquatic animals
- maintain the highest standards of hygiene and infection control at all times to reduce the risk of infection and cross-infection
- recognise behaviours and conditions that could be indicative of possible aquatic animal health problems
- literacy skills to read and follow organisation policies and procedures, including OHS and waste management procedures and other organisational policies and procedures; follow sequenced written instructions including treatment instructions; record accurately and legibly information collected; and select and apply procedures to a range of defined tasks
- oral communication skills/language to fulfil the job role as specified by the organisation, including questioning techniques, active listening, asking for clarification and consulting with supervisors
- numeracy skills to estimate, calculate and record routine workplace measures and treatment doses
- interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities
- problem-solving skills to use available resources and prioritise daily tasks
- use safe manual handling techniques and/or equipment
- use safe waste handling and disposal procedures.

Required knowledge

- appropriate and authorised aquatic animal treatments
- basic aquatic animal biology
- broad categories of parasitic infestations and/or viral, fungal and bacterial diseases
- general maintenance and cleaning of aquaria
- normal and abnormal behaviour of aquatic species
- organisation policies, procedures and requirements, including OHS and emergency procedures
- preventative medicine programs for internal and external parasites
- principles of animal welfare and ethics

REQUIRED SKILLS AND KNOWLEDGE

- relevant OHS and animal welfare legislative requirements and codes of practice, including environmental regulations
- relevant recordkeeping systems
- safe aquatic animal handling techniques and procedures
- safe work practices
- signs of common aquatic animal diseases and parasitic infestations and their transmission between aquatic animals
- water quality adjustment procedures, including water chemistry
- water sampling, testing and analysis procedures and techniques
- working knowledge of ideal water conditions and quality for a range of aquatic animals, including Ph, nitrate, nitrite, ammonia, salinity, calcium and hardness
- working knowledge of chemicals used to correct water conditions and the water quality of aquascapes
- workplace hygiene standards, disinfectants, cleaning agents, cleaning techniques and cleaning equipment and materials
- zoonotic diseases.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>The evidence required to demonstrate competence in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit. Assessors should ensure that candidates can:</p> <ul style="list-style-type: none"> • monitor and maintain effective aquatic animal health-management practices in accordance with organisational policies and procedures • comply with relevant legislation, regulations and codes of practice, including animal welfare and OHS • identify aquatic animals showing signs of poor health, injuries or abnormal behaviour • administer authorised aquatic animal treatments and implement preventative medicine programs • collect and test water samples and adjust water quality to suit the aquascape and species requirements as required • maintain records and required documentation. <p>The skills and knowledge required to maintain aquascapes and aquatic animals must be transferable to a range of work environments and contexts and include the ability to deal with unplanned events.</p>
Context of and specific resources for assessment	<p>Assessment of this unit is to be practical in nature and will most appropriately be assessed in an aquaria services workplace or in a situation that reproduces normal work conditions.</p> <p>There must be access to a range of aquatic animal breeds and species as well as the appropriate equipment and/or resources to enable one to demonstrate competence.</p>
Method of assessment	To ensure consistency in one's performance, competency should be demonstrated, to industry defined standards, on more than one occasion over a period of time in order

EVIDENCE GUIDE	
	<p>to cover a variety of circumstances and where possible, over a number of assessment activities.</p> <p>The assessment strategy must include practical skills assessment. Suggested strategies for this unit are:</p> <ul style="list-style-type: none"> • written and/or oral assessment of candidate's required knowledge • observed, documented and first-hand testimonial evidence of candidate's application of practical tasks • simulation exercises that reproduce normal work conditions • third-party evidence • workplace documentation • portfolio. <p>This unit may be assessed in a holistic way with other units of competency relevant to the industry sector, workplace and job role.</p>
Guidance information for assessment	<p>Assessment methods should reflect workplace demands (e.g. literacy and numeracy demands) and the needs of particular target groups (e.g. people with disabilities, Aboriginal and Torres Strait Islander people, women, people with a language background other than English, youth and people from low socioeconomic backgrounds).</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>OHS</i> risks when handling animals may include:	<ul style="list-style-type: none"> • animal bites, envenomation, kicks, scratches and crush injuries • biological hazardous waste and sharps disposal • handling of chemicals and medicines • gas leakage • inhalation of aerosol particles • intraocular contamination • manual handling, including carrying, lifting and shifting • needle pricks and cuts from other sharps • release of infective agents (animal and human) • slippery or uneven work surfaces • zoonoses.
<i>Disease agents</i> may include:	<ul style="list-style-type: none"> • infectious disease agents: <ul style="list-style-type: none"> • bacteria • fungi • internal and external parasites • virus • non-infectious disease agents: <ul style="list-style-type: none"> • allergies • chemical toxicities • metabolic • neoplastic • nutritional • physical trauma.
<i>Zoonotic diseases</i> may include:	<ul style="list-style-type: none"> • bacterial and endo-parasites (e.g. protozoa) • different types of salmonella infections.
Signs of <i>unhealthy</i> or <i>injured</i> animals may include:	<ul style="list-style-type: none"> • abnormal faeces colour, texture quantity • blisters or other skin lesions, dead or peeling skin • clamping of fins and tail with presence of blood streaks

RANGE STATEMENT	
	<ul style="list-style-type: none"> • difficulty breathing • difficulty in sloughing old skins • irregular colouration on shell • loss of righting behaviour • one or both eyes protruding • presence of parasites on skin surface or trailing from body cavities • swelling • wounds.
Signs of <i>abnormal behaviour</i> may include:	<ul style="list-style-type: none"> • aggression or docility (depending on animal) • inappetence • lethargy.
Water sampling <i>tests</i> and analysis may include:	<ul style="list-style-type: none"> • ammonia • calcium • hardness • pH • salinity • temperature.
<i>Water quality adjustment</i> may involve:	<ul style="list-style-type: none"> • correcting chemical imbalances • partial water change • raising or lowering of pH or hardness.
<i>Parasitic infestations</i> may include:	<ul style="list-style-type: none"> • anchor worm • fish lice • flukes • parasitic protozoa.
<i>Viral, fungal and bacterial diseases</i> may include:	<ul style="list-style-type: none"> • body fungus • dropsy • fin and tail rot • mouth fungus.
<i>Aquatic animal treatments</i> may be administered via:	<ul style="list-style-type: none"> • dips and bathes • food and water preparations • liquids • pastes • soluble powers • tablet • topical applications.
<i>Preventative medicine programs</i> may include:	<ul style="list-style-type: none"> • anti-parasitic water treatments • food preparations.

Unit Sector(s)

Unit sector	Companion animal services
--------------------	---------------------------

Competency field

Competency field	
-------------------------	--

Co-requisite units

Co-requisite units		