



**Australian Government**

# **SFIAQU403 Manage water quality and environmental monitoring in enclosed systems**

**Release: 1**

# SFIAQU403 Manage water quality and environmental monitoring in enclosed systems

## Modification History

Release	Comments
Release 1	This version released with SFI Seafood Industry Training Package Version 1.0.

## Application

This unit of competency describes the skills and knowledge required to develop and implement a water quality and environmental monitoring program and procedures for enclosed systems.

The unit applies to individuals who use specialised skills and knowledge to analyse and monitor water quality and environmental data and manage maintenance activities within an aquaculture facility.

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

## Pre-requisite Unit

Nil

## Unit Sector

Aquaculture (AQU)

## 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. Develop a water quality management program	1.1 Develop monitoring schedule and methods to identify routine water quality and environmental parameters 1.2 Develop workplace procedures for routine water quality, environmental monitoring and management of culture or holding water

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 Organise data collection and record management activities
2. Oversee non-routine water quality monitoring, sampling and manipulation	2.1 Identify potential problematic non-routine water quality parameters and develop measurement methods 2.2 Carry out monitoring and sampling and arrange external analysis according to workplace procedures 2.3 Detect and manage effects of health treatments on the quality of the culture or holding water
3. Analyse and present data in tables and graphs	3.1 Check water quality and environmental data to identify transcription errors or atypical entries 3.2 Present data accurately in tables and graphs according to workplace practices 3.3 Analyse data and report on features and trends
4. Assess and adjust water for cultured or held stock	4.1 Assess the suitability of supply water for cultured or held stock 4.2 Detect aquaculture practices that impact adversely on water quality, and modify practices to minimise impacts 4.3 Manipulate water chemistry to improve water quality according to workplace procedures 4.4 Modify management strategies based on data collected

## 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	<ul style="list-style-type: none"> <li>Analyses data against quality parameters and interprets tables and graphs to determine trends</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Records and presents data accurately and in required format</li> <li>Documents workplace procedures using clear structure, language and technical terminology</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Measures perimeters, areas, volumes and angles</li> <li>Applies mathematical concepts of ratio, percentage, density, and</li> </ul>

Skill	Description
	standard deviation to monitoring activities
Oral communication	<ul style="list-style-type: none"> <li>Participates in verbal exchanges to convey information relating to water quality and monitoring data</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Works independently within broad parameters, taking responsibility for plans, decisions and outcomes relating to own role and area of responsibility</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Uses workplace digital systems and tools to access, organise, analyse and display information relevant to role and area of responsibility</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
SFIAQU403 Manage water quality and environmental monitoring in enclosed systems	SFIAQUA411A Manage water quality and environmental monitoring in enclosed systems	Updated to meet Standards for Training Packages	Equivalent unit

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=e31d8c6b-1608-4d77-9f71-9ee749456273>