

**Modification history**

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 5.0.
Release 1	Initial release

<b>AHCWAT301</b>	<b>Monitor and operate water treatment processes</b>
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to plan, monitor, control, operate, measure, adjust and report water and waste water treatment performance and process control.</p> <p>The unit applies to individuals who monitor and operate water treatment processes under broad direction and take responsibility for their own work.</p> <p>All work must be carried out to comply with workplace procedures, health and safety in the workplace requirements, legislative and regulatory requirements, food safety codes, sustainability and biosecurity practices.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Water (WAT)

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. Plan and prepare for work	1.1 Interpret work plans, including identifying potential hazards and risks and implementing safe working practices to manage risks and clarify with supervisor 1.2 Select and use required tools, equipment and machinery and check for safe operations 1.3 Select, fit, use and maintain safety and personal protective equipment applicable to the task
2. Monitor water treatment plant performance	2.1 Conduct routine inspections of treatment equipment 2.2 Collect water samples and conduct standard tests or send samples for analysis according to food safety codes, biosecurity practices and workplace procedures 2.3 Collect, record and report treatment process data according to workplace procedures
3. Control chemical use	3.1 Use, handle and store chemicals according to workplace health and safety procedures 3.2 Prepare chemical dosing 3.3 Maintain information related to chemical supply and usage according to workplace health and safety procedures
4. Operate and control water treatment processes	4.1 Monitor water and waste water treatment processes to maintain parameters of operation 4.2 Identify and report process faults and operational conditions of treatment equipment according to workplace procedures 4.3 Initiate basic equipment and process adjustments to enhance performance 4.4 Minimise environmental impacts of water treatment processes

<b>Elements</b>	<b>Performance Criteria</b>
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
5. Complete work	5.1 Clean and return tools, equipment and machinery to required location 5.2 identify and report unserviceable tools, equipment and machinery according to workplace procedures 5.3 Record equipment and water treatment processes according to workplace procedures

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<b>Foundation Skills</b>	
<i>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.</i>	
<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Interpret textual information from a range of sources to identify relevant and key information about workplace operations and products</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Use clear language, accurate industry terminology and logical structure to prepare equipment and water treatment process records</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Initiate discussions with supervisor using clear language to confirm and report water treatment activities, and tool, equipment and machinery unserviceability</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Calculate ratios for chemical dosing</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
AHCWAT301 Monitor and operate water treatment processes Release 2	AHCWAT301 Monitor and operate water treatment processes Release 1	Performance criteria clarified Foundation skills added Assessment requirements updated	Equivalent unit

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

<b>TITLE</b>	<b>Assessment requirements for AHCWAT301 Monitor and operate water treatment processes</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has monitored and operated water treatment processes on at least two occasions and has:</p> <ul style="list-style-type: none"> <li>• applied workplace health and safety requirements applicable to monitoring and operating water treatment processes</li> <li>• applied food safety codes, environmental and biosecurity practices and workplace procedures applicable to monitoring and operation water treatment processes</li> <li>• used water sampling and testing techniques</li> <li>• prepared and applied chemical</li> <li>• identified control system faults</li> <li>• minimised environmental impacts of water treatment processes</li> <li>• recorded and reported equipment and water treatment processes according to workplace procedures.</li> </ul>	
<b>Knowledge Evidence</b>	
<p>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:</p> <ul style="list-style-type: none"> <li>• workplace health and safety requirements applicable to monitoring and operating water treatment processes</li> <li>• food safety codes, environmental and biosecurity practices and workplace procedures applicable to monitoring and operating water treatment processes</li> <li>• the principles and practices for monitoring and operating water treatment processes, including: <ul style="list-style-type: none"> <li>• chemical dosing processes</li> <li>• environmental impacts of irrigation using water from any ground or underground source</li> <li>• environmental issues associated with water treatment</li> <li>• hazardous materials handling</li> <li>• water quality monitoring methods and techniques</li> <li>• water treatment and water filtration techniques</li> </ul> </li> <li>• workplace recording and reporting procedures.</li> </ul>	
<b>Assessment Conditions</b>	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions: <ul style="list-style-type: none"> <li>• a workplace setting or an environment that accurately represents workplace conditions</li> </ul> </li> <li>• resources, equipment and materials: <ul style="list-style-type: none"> <li>• water treatment tools, equipment and machinery</li> <li>• water treatment testing equipment and chemicals</li> <li>• personal protective equipment applicable to monitoring and operating water treatment processes</li> <li>• principles and practices for monitoring and operating water treatment processes</li> </ul> </li> <li>• specifications: <ul style="list-style-type: none"> <li>• workplace health and safety requirements applicable to monitoring and operating water treatment processes</li> <li>• food safety codes, environmental and biosecurity practices and workplace procedures applicable to monitoring and operating water treatment processes</li> <li>• workplace recording and reporting procedures</li> </ul> </li> <li>• relationships: <ul style="list-style-type: none"> <li>• supervisor</li> </ul> </li> <li>• timeframes: <ul style="list-style-type: none"> <li>• according to job requirements.</li> </ul> </li> </ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	

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