



Australian Government

AHCWAT303 Access, extract and monitor water for irrigation

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 8.0.

Application

This unit of competency describes the skills and knowledge required to identify and analyse common water holding licences and/or accounts that are used to access and extract irrigation water, including water attached to entitlements and/or water that is available on the temporary market. It also includes implementing water deliveries and end of season review. Irrigators may own and operate their own infrastructure (private diverters) and/or access water via infrastructure within an irrigation network.

The unit applies to workers who apply knowledge and skills to access and take delivery of water onto properties for agricultural use. They monitor the environment and use judgement to access water and follow up water extraction and use. The unit applies to irrigators and other agricultural workers that operate autonomously, coordinate activities, solve predictable and unpredictable problems and take responsibility for the success of their crops and/or livestock. It may also apply to the access and extraction of water for other sectors.

Commonwealth and state/territory and regional/local legislation, regulations and rules apply to the access, extraction and use of water. Requirements vary between jurisdictions.

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

Pre-requisite Unit

Nil

Unit Sector

Water (WAT)

Elements and Performance Criteria

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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

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1. Determine regulatory requirements for water licences and/or access accounts	1.1 Confirm water sources available to the property to be irrigated and identify the authorities that manage and/or regulate water sources and delivery infrastructure 1.2 Identify water system to be used and associated regulations 1.3 Identify water licences and/or water account types that may be used to access and extract water for irrigation for the property 1.4 Identify regulations, conditions and/or other requirements related to holding and operating a water licence and/or a water account for the property 1.5 Identify, as a private diverter, water entitlements and allocations, water licence and/or water types accessible, infrastructure, delivery risks and yearly costs required to access water 1.6 Identify, as an irrigator in an irrigation network, water licence and/or water types accessible, temporary and/ or annual water, delivery risks and yearly costs required to access water
2. Implement water deliveries as a private diverter	2.1 Confirm private diverter's water licence and access conditions related to water share (allocation), allocation account, reporting requirements, tradeable water, potential carryover, and where and/or how the water will be used 2.2 Check pump, water meter and other infrastructure are compliant with regulatory requirements and ready for operation 2.3 Monitor weather conditions and forecasts 2.4 Confirm delivery times and prepare to extract water during time window 2.5 Extract water within licence conditions 2.6 Check metering, complete reporting if required, and track overall extraction against licence conditions 2.7 Monitor water account balance and seasonal allocation announcements and ensure compliance with extraction limits 2.8 Protect pumps if required

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
3. Implement water deliveries as part of an irrigation network	3.1 Confirm water extraction conditions, related to water share (entitlement and/or allocation), allocation account, reporting requirements, allowable tradeable water and potential carryover, and where and/or how the water will be used 3.2 Confirm there is sufficient water in account to place order, and source additional water if required 3.3 Monitor weather conditions and forecasts 3.4 Monitor lead times and place order for water 3.5 Check meter and other water receival infrastructure is ready for operation 3.6 Confirm delivery times and prepare to extract water during time window 3.7 Extract water according to irrigation network conditions 3.8 Check metering, complete reporting if required and track overall extraction against account conditions 3.9 Confirm and complete ongoing reporting requirements
4. Conduct end of season review and commence preparation for next season	4.1 Compare actual water delivered to water ordered 4.2 Complete water delivery process confirming shut off and final automated procedures 4.3 Identify water usage trends for current season 4.4 Conduct equipment and infrastructure checks and maintenance 4.5 Complete final regulatory reporting as required 4.6 Complete end of year water balance, including any carryover

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 regulations and rules related to water trading

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Writing	Record and report information accurately using appropriate regulatory and industry terminology
Oral communication	Use open and closed questions to gather information
Numeracy	- Measure and calculate area, volume, percentage, ratio and price per megalitre (ML) - Use appropriate terminology to describe water volumes, including kilolitres (KL), megalitres (ML) and gigalitres (GL) - Identify and interpret trends from water market data including graphs and charts

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCWAT303 Access, extract and monitor water for irrigation	Not applicable	The unit has been created to address a skill or task required by industry that is not covered by an existing unit	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 AHCWAT303 Access, extract and monitor water for irrigation

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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 undertaken the processes required to order and take delivery of at least three separate parcels of water for a specific property, either as private diverter or as part of an irrigation network. In doing so, the individual must have:

- confirmed the licence and/or water account conditions, including access conditions and penalties that may apply
- identified total water available under the licence and/or account
- confirmed and completed internal and external reporting requirements
- completed an end of year water balance and determined carryover available

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:

- key features of regulations and conditions that apply to irrigation water extracted and used including:
 - water access licence
 - water use approval
 - works approval
 - delivery/extraction share
- key features of water markets and how they function, including:
 - permanent or entitlement trade
 - temporary or allocation trade
 - key market participants including irrigators, environmental water holders and regulators
 - conditions on market participants

- functions and compliance powers of federal/state/territory and regional water authorities or private infrastructure operators that apply to water extracted and used
- cost and benefits of accessing and extracting irrigation water as a private diverter
- costs and benefits of accessing and extracting irrigation water as an account holder with an irrigation network
- visual and operational checks of water meters, pumps and water delivery infrastructure
- functions and operations of appropriate water registers that apply to the jurisdiction being irrigated
- water use licences and water trade restrictions that apply to water extracted and used
- key features of water entitlements and water allocations, including seasonal variations
- trade restrictions related to water licence and/or water account, including carryover water and inter-valley trade cap requirements
- types and classes of water available in local water market, and their access conditions
- risks associated with water orders and delivery
- lead time under a range of water availability and deliverability scenarios
- water products available in local water market
- key considerations when monitoring weather and weather forecasts
- sources of information on allocation, allocation announcements and market opportunities
- key end of season dates, including dates for water delivery, extraction, carryover, and annual water trading
- end of year water balance, including any carryover.

Assessment Conditions

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

- physical conditions:
 - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - digital technologies required to complete the tasks specified in the performance evidence
 - access to property specified in the performance evidence and/or information about the property required to successfully undertake the performance evidence as a simulated scenario
 - access to water supplier metering and extraction rules and requirements
- specifications:
 - access to water licence or water account information required to complete tasks in the performance evidence

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

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