Modification history

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| Release | Comments |
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 8.0. |

| AHCWAT3X1 | Access, extract and monitor water for irrigation |
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| 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 footprint, or both.  The unit applies to workers who apply knowledge and skills to purchase access and take delivery of water on to 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. |
| Prerequisite Unit | Nil |
| Unit Sector | Water (WAT) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Determine the legal and 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 licences and/or water account types that may be used to access and extract water for irrigation  1.3 Identify the regulations, conditions and/or other requirements related to holding and operating a water licence and/or a water account in that region  1.4 Identify water entitlements and allocations, water licence/types accessible, infrastructure, delivery risks and yearly costs required to access water as a private diverter  1.5 Identify water licence and/ or water types accessible, temporary and/ or annual water, delivery risks and yearly costs required to access water within an irrigation footprint |
| 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, carry over component, 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 |
| 3. Implement water deliveries as part of an irrigation footprint | 3.1 Confirm water extraction conditions, related to water share (entitlement and/or allocation), allocation account, reporting requirements, allowable tradeable water and carry over component, 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 lead times and place order for water  3.4 Monitor lead time  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 supplier conditions  3.8 Check metering, and 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 and liaise with local water authority  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 for water account and identify carry over water available |

| 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. | |
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| Skill | Description |
| Reading | * Interpret legislation, regulations and rules related to water trading |
| Writing | * Record and report information accurately using appropriate regulatory and industry terminology |
| Oral communication | * Use open and close questions to gather information |
| Numeracy | * Measure and calculate area, volume, percentage, ratio and unit costs * Use appropriate terminology to describe water volumes, including kilolitres (KL), megalitres (ML) and gigalitres (GL) * Identify and interpret trends from water market data sources |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCWAT3X1 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 |

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

| TITLE | Assessment requirements for AHCNEW3X1 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 footprint. 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 carry over available | |

| Knowledge Evidence |
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| 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 the 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: * entitlement trade * allocation trade * key market participants including irrigators, environmental water holders and regulators * conditions on market participants * functions and compliance powers of state/territory and regional water authorities or private infrastructure operators that apply to the water extracted and used * functions and operations of state 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 carry over 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 * features and benefits of temporary water trading * 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, carry over, and annual water trading. |

| Assessment Conditions |
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| 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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