



Australian Government

NWPIWS014 Coordinate and monitor the operation of irrigation delivery systems

Release: 1

NWPIWS014 Coordinate and monitor the operation of irrigation delivery systems

Modification History

Release 1. This is the first release of this unit of competency in the NWP National Water Training Package.

Application

This unit involves the skills and knowledge required to coordinate and monitor the operation of irrigation delivery systems.

It includes meeting operational and environmental performance standards including system maintenance and customer liaison.

This unit applies to those working as field or operational staff with a specific responsibility for ensuring the operation of irrigation systems complies with organisational and statutory requirements. Those undertaking this unit would work autonomously, usually with supervisory responsibilities, while performing complex tasks in a range of contexts.

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

Pre-requisite Unit

Not applicable.

Competency Field

Irrigation Water Supply

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Confirm performance measures in irrigation

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Communicate with customers to identify irrigation

system's management plan	requirements
	1.2 Identify environmental factors impacted by the irrigation system
	1.3 Interpret historic system information and consult stakeholders
	1.4 Confirm performance requirements for an irrigation system management plan
2 Monitor and coordinate processes and resource targets	2.1 Monitor and test programs and identify, investigate and report any deviations from water quantity, quality, release or flow
	2.2 Evaluate the duration, volume and flow rates of water deliveries and identify, investigate and report deviations from agreed service levels
	2.3 Identify and plan maintenance requirements according to irrigation plan
	2.4 Identify and implement operational resources for the irrigation management plan
	2.5 Develop and implement an operational risk management plan
	2.6 Review the scheduling and flow calculations
3 Report outcomes of coordination and monitoring	3.1 Monitor and report the performance of the irrigation system
	3.2 Make recommendations for improvements in system performance and/or customer service

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit supersedes and is equivalent to NWPIRR033 Coordinate and monitor the operation of irrigation delivery systems.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Assessment Requirements for NWPIWS014 Coordinate and monitor the operation of irrigation delivery systems

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and includes:

- analysing and reporting data
- assessing environmental impact
- checking flows
- confirming performance requirements for an irrigation system management plan
- evaluating performance of water deliveries and investigating and reporting deviations from agreed service levels
- evaluating performance targets
- identifying and reporting problems
- identifying customer requirements and environmental factors that impact on the irrigation system
- implementing, monitoring and testing programs and investigating and reporting deviations from planned parameters
- interpreting historic system information and consulting stakeholders
- making recommendations for system performance or customer service improvements

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria and include knowledge of:

- coordination processes
- customer expectations and requirements
- environmental and topography influence on the operation area
- evaluation strategies for effectiveness of performance
- impact of the principles of hydraulics on the operation of flows
- irrigation SCADA systems
- maintenance contingencies
- operational contingencies
- operational risk factors
- principles of scheduling for supply

- relevant legislation, policies and procedures
- requirements for monitoring and testing programs
- system equipment operation, capacity and limitations
- system layout and operations
- water flow calculations
- workplace documentation including requirements for an operational risk management plan

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including legislation, regulations, codes of practice, workplace procedures and operation manuals.

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