



Australian Government

NWPIWS013 Coordinate and monitor pumped rural irrigation systems

Release: 1

NWPIWS013 Coordinate and monitor pumped rural irrigation 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 pumped rural irrigation systems.

It includes ensuring the irrigation plan's performance measures are met, environmental issues are addressed and a source of supply is maintained.

This unit applies to those working as field and operational staff with a specific responsibility for ensuring the operation of pumped rural irrigation systems complies with the requirements of the organisation's irrigation plan and with relevant 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.

PERFORMANCE CRITERIA

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

- | | |
|---|---|
| 1 Confirm irrigation plan performance measures | 1.1 Identify water flow requirements in water sources |
| | 1.2 Identify water quality and quantity requirements, including release rates |
| | 1.3 Identify environmental factors impacting water flows and quality |
| | 1.4 Identify performance measures for the water resource and operation of the system |
| | 1.5 Identify and communicate with stakeholders |
| | 1.6 Access monitoring data and consult stakeholders |
| 2 Monitor the performance of assets | 2.1 Conduct monitoring and testing programs according to irrigation plan |
| | 2.2 Select, fit and use personal protective equipment |
| | 2.3 Monitor assets to ensure performance meets specifications in the irrigation plan |
| | 2.4 Schedule maintenance programs to ensure irrigation plan performance |
| 3 Monitor, coordinate and report processes | 3.1 Test and monitor water usage and quality according to the irrigation plan |
| | 3.2 Coordinate processes to meet the irrigation plan's requirements and targets |
| | 3.3 Identify and implement actions to optimise system performance |
| | 3.4 Analyse, record and report coordination and monitoring data to relevant stakeholders and personnel |

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 NWPIRR034 Coordinate and monitor surface water 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 NWPIWS013 Coordinate and monitor pumped rural irrigation systems

Modification History

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

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:

- accessing and analysing data, completing records and producing reports
- assessing environmental impact
- conducting or supervising asset monitoring and testing programs
- conducting or supervising testing and monitoring of water usage and water quality
- conducting site inspections
- consulting with stakeholders
- coordinating and monitoring the operation of irrigation water systems
- coordinating measuring and testing activities
- coordinating processes to meet targets and optimise system performance
- identifying irrigation water system performance measures from the irrigation plan
- identifying water flow, quality and quantity requirements and any environmental factors that may affect these

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:

- environmental, climatic and weather characteristics and impacts
- hydraulic analysis
- irrigation water systems
- relevant legislation and workplace policies and procedures
- requirements for monitoring and testing programs
- stakeholder expectations and requirements

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.

Links

Companion Volume implementation guides are found in VETNet -

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