



Australian Government

NWPIRR005 Develop and review a surface water plan

Release: 1

NWPIRR005 Develop and review a surface water plan

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 develop and review a surface water plan.

It includes ensuring environmental considerations are met and source of supply is maintained. It also includes applying and adhering to relevant legislation, industry regulations and workplace procedures.

This unit applies to leaders working in water organisations with responsibility for the development and review of surface water resources including but not limited to rivers and streams, dam catchments, flood retarding, overland flow controls and related drainage. It does not include flood routing through storages.

Those undertaking this unit would work autonomously and lead personnel whilst performing sophisticated tasks in a range of contexts.

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

Pre-requisite Unit

Not applicable.

Competency Field

Irrigation

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.

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| 1 Prepare for surface water flow and quality management | 1.1 | Identify hazards, assess risks and implement control measures associated with surface water flow requirements |
| | 1.2 | Identify, interpret and synthesise relevant data to monitor and test water flow, quality and quantity requirements, including release figures |
| | 1.3 | Identify, interpret and analyse historic source water flow and system capacity information |
| | 1.4 | Identify and interpret environmental factors impacting surface water flows and quality |
| | 1.5 | Identify, interpret and review resource and operational protocols |
| | 1.6 | Complete complex calculations and incorporate analysed results into the surface water plan |
| 2 Develop the surface water plan | 2.1 | Identify and interpret surface water management requirements |
| | 2.2 | Identify, interpret and validate stakeholder requirements impacting surface water |
| | 2.3 | Develop a surface water plan according to relevant legislation, industry standards and workplace procedures |
| | 2.4 | Identify, investigate and report breaches of surface water management controls |
| 3 Review the surface water plan | 3.1 | Analyse and report deviations from planned performance measures |
| | 3.2 | Review objectives of the management and implementation plans |
| | 3.3 | Review parameters for water usage and quality through monitoring and testing programs |
| | 3.4 | Report and recommend changes to plan objectives, workplace procedures and usage and quality parameters |
| | 3.5 | Provide advice and guidance to water users and stakeholders |

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.

Unit Mapping Information

This unit replaces and is equivalent to NWPIRR063 Develop and review surface water management plan.

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 NWPIRR005 Develop and review a surface water plan

Modification History

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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:

- developing and reviewing a surface water plan to ensure environmental considerations are met and source of supply is maintained
- developing effective surface water plans addressing the water organisation's objectives and requirements
- gathering, interpreting and synthesising information including:
 - historical data
 - monitoring and testing results
 - relevant legislation, industry standards and workplace procedures
 - stakeholder requirements
- identifying and interpreting environmental factors
- identifying hazards, assessing risks and implementing control measures associated with surface water flow requirements
- preparing reports and recommendations for changes to the objectives of the surface water plan and its implementation
- reviewing the implementation and development plan
- reading and interpreting complex data and performing complex calculations to track and manage performance of surface water
- using data from testing and other monitoring arrangements to track the performance of the surface water plan and inform the review of the plan

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 includes knowledge of:

- climatic and weather characteristics and impacts
- changes to water flow and levels over time
- complex calculations
- hydraulic analysis
- physical assets associated with surface water management

- public and government reporting requirements
- relevant legislation, regulations, industry standards and workplace procedures relating to surface water
- relevant water data including:
 - flow
 - quality and quantity requirements
 - release figures
- rights of water authority control and management procedures
- risk management principles
- stakeholder requirements and rights associated with managing surface water
- surface water sources

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 suitable workplace operational situations. Where this is not appropriate, assessment must occur in suitable simulated workplace operational situations reflecting actual 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, facilities, equipment and personal protective equipment currently used in industry
- applicable relevant documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

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