



Australian Government

NWPNET008 Develop and manage a drinking water system plan

Release: 1

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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 manage a drinking water system plan.

It includes planning, developing, implementing, monitoring and evaluating the operation and maintenance of drinking water systems. It also includes reporting on implementation of the plan including system performance analysis, stakeholder and customer liaison.

This unit supports the attainment of skills and knowledge required for managers in water organisations with responsibility for implementing drinking water system management plans. Those undertaking this unit would work autonomously, leading staff, while performing sophisticated tasks in a range of familiar contexts.

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

Pre-requisite Unit

Not applicable.

Competency Field

Networks

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan for drinking water systems

PERFORMANCE CRITERIA

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

1.1 Identify, interpret and synthesise historical water system information relevant to the management process

- 1.2 Identify and access legislation, workplace procedures, environmental requirements and system constraints impacting on delivery of drinking water
 - 1.3 Identify and interpret drinking water system specifications including regulatory requirements, industry standards and workplace procedures
 - 1.4 Identify hazards, assess risks and implement control measures according to workplace procedures
 - 1.5 Identify stakeholder requirements impacting the drinking water system
 - 1.6 Confirm performance measures for the drinking water system plan
 - 1.7 Determine responsibilities and timelines for implementation activities
 - 1.8 Determine and analyse water quantity and quality requirements, including pressure and flow rates according to industry standards and workplace procedures
- 2 **Develop drinking water system plan**
 - 2.1 Apply system specification requirements to the drinking water system plan according to relevant legislation, industry standards and workplace procedures
 - 2.2 Assess public health, environmental and community factors impacting drinking water systems
 - 2.3 Apply information impacting the specification planning process according to regulatory requirements, industry standards and workplace procedures
 - 2.4 Develop and document a plan for managing water collection, treatment and distribution
 - 2.5 Design and implement monitoring and testing programs according to the drinking water plan
- 3 **Implement drinking water system plan**
 - 3.1 Provide advice and guidance to plan users and stakeholders according to regulatory requirements and workplace procedures
 - 3.2 Manage resources to achieve drinking water system plan
 - 3.3 Operate the system according to the drinking water

- system plan and regulatory requirements
- 4 Monitor and evaluate drinking water system plan**
- 4.1** Evaluate delivery of water to customers including quality supply and pressure by identifying, investigating and reporting deviations from agreed service levels
 - 4.2** Plan and oversee system maintenance according to drinking water system plan
 - 4.3** Analyse and interpret monitoring and testing results and report according to regulatory requirements and workplace procedures
 - 4.4** Investigate current and identify potential problems and report results and recommendations according to regulatory requirements and workplace procedures
 - 4.5** Evaluate maintenance budgets, activity programs and output target measures and identify, investigate and report deviations from target
 - 4.6** Identify and record links between operational problems and maintenance activities
 - 4.7** Investigate breaches of usage provisions and report results and recommendations according to regulatory requirements and workplace procedures
 - 4.8** Identify and evaluate changes to the drinking water system plan as a result of changes in regulatory and stakeholder requirements
 - 4.9** Modify and implement the drinking water collection plan, incorporating accepted recommendations
- 5 Review and refine plan**
- 5.1** Review objectives of management and implementation plans
 - 5.2** Make recommendations for changes to plan objectives and operational and maintenance procedures
 - 5.3** Implement outcomes from audits and internal reviews

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 is a new unit. No equivalent unit.

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 NWPNET008 Develop and manage a drinking water system 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:

- advising and guiding plan users in compliance with regulatory requirements
- assessing environmental impacts
- assessing impacts on public health
- consulting and communicating with stakeholders and customers
- coordinating measuring and testing activities
- coordinating operation and maintenance activities
- evaluating delivery of water to customers
- identifying and recording links between operational problems and maintenance activities
- identifying deviations of water quality, quantity and pressure using testing methods
- identifying hazards, assessing risks and implementing control measures
- identifying, interpreting and synthesising information for implementing activities for the drinking water plan including:
 - developing an implementation plan
 - historical data
 - pressure and flow rates
 - relevant legislation, industry standards and workplace policies
 - stakeholder requirements
 - raw water supply availability
 - results of drinking water system testing and monitoring
 - reviewing plan objectives
 - water quality and quantity
- managing maintenance budgets and reporting deviations
- monitoring and evaluating the outcomes of the drinking water system plan
- planning and implementing testing processes and programs
- performing investigations and reporting deviations
- preparing reports and recommendations for future action
- using analytical skills

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:

- budgeting techniques
- constraints impacting water system
- customer and stakeholder expectations and requirements
- drinking water distribution system
- investigation techniques
- measure and test procedures
- relevant legislation associated with drinking water including:
 - environmental legislation
 - public health of drinking water
 - work health and safety (WHS)
- relevant workplace policies and procedures
- risk management principles
- water performance measures
- water system historical information

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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