



Australian Government

NWPNET005 Optimise network systems

Release: 1

NWPNET005 Optimise network systems

Modification History

Release	Comments
1	This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages. This unit supersedes and is equivalent to NWP403A Investigate and plan the optimisation of potable water distribution systems. • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Unit title changed to better reflect unit outcomes

Application

This unit describes the skills required to coordinate, monitor and optimise system performance and maintenance planning in potable water distribution systems.

This unit applies to those working as staff members with a specific responsibility for ensuring that potable water systems comply with organisational and statutory requirements.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to, particularly those related to WHS.

Those undertaking this unit would work independently or in a team, and may be responsible for the coordination of an operational team. They will perform complex tasks in a familiar context, ensuring minimum damage to the environment.

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

Competency Field

Networks

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the	Performance criteria describe the performance needed to demonstrate

essential outcomes	achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Evaluate potable water distribution system performance	1.1 Review existing distribution system performance data against relevant organisational and legislative requirements. 1.2 Identify the impact of the distribution system on water quality. 1.3 Identify and coordinate any additional sampling and testing required for valid evaluation of current process performance.
2. Investigate water distribution system issues	2.1 Review existing system fault reports and relevant water quality information. 2.2 Identify and record links between operational problems and maintenance activities. 2.3 Investigate the operational status of system components with reference to manufacturer and supplier specifications. 2.4 Carry out distribution system configuration investigations to identify potential deficiencies.
3. Plan optimisation of potable water distribution system	3.1 Identify potential hazards to the distribution system. 3.2 Select appropriate preventive measures. 3.3 Develop and validate a system optimisation plan.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP403A Investigate and plan the optimisation of potable water distribution systems.

Links

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for NWPNET005 Optimise network systems

Modification History

Release	Comments
1	These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages. • Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- producing optimisation reports
- analysing problems and recommending appropriate remedial solutions
- identifying risks and hazards
- identifying opportunities for improved distribution system management
- participating in the provision of appropriate information to inform workplace processes
- optimising system performance and maintenance planning
- assessing distribution system performance and impacts on water quality
- investigating system faults and deficiencies and assessing the status of system components
- conducting hazard assessment and proposing prevention strategies
- producing and monitoring a potable water distribution system optimisation plan

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- relevant legislation, standards, policies and procedures
- customer expectations and requirements
- system hydraulics
- incident management processes
- system layout, processes and operations
- risk factors and potential hazards involved in water systems

- equipment operation, capacity and limitations of control system
- forces including gravitational, valve operation, hydraulic and pumps

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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