



Australian Government

NWPNET022 Maintain and repair network assets for drinking water

Release: 1

NWPNET022 Maintain and repair network assets for drinking water

Modification History

Release	Comments
1	This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages. • New unit, created drawing upon information from deleted units NWP245B, NWP254B, NWP253B and NWP229B

Application

This unit describes the skills required to maintain a variety of water distribution assets including storages, pumping stations, dosing stations and pipelines.

This unit applies to those working as field staff with specific responsibility for ensuring the repair and maintenance of water assets.

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.

Those undertaking this unit would work under indirect supervision, while performing routine 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 essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Plan and prepare for work	1.1 Conduct risk assessment for environmental, safety and water quality factors. 1.2 Determine work requirements, materials and configuration from

	plans, specifications, instructions and/or organisational procedures. 1.3 Check coordination issues with relevant personnel, including isolations, licences and permits to work. 1.4 Identify networks system operation requirements. 1.5 Arrange appropriate site protection. 1.6 Identify and notify customers of supply interruption.
2. Conduct maintenance and repairs	2.1 Isolate the work area. 2.2 Determine appropriate repair method from job specifications and instructions. 2.3 Ensure materials, pipes and fittings are clear of any contaminants before installing. 2.4 Sterilise fittings and repair materials. 2.5 Check maintenance and repairs to assets to ensure specifications are met. 2.6 Restore work site to meet environmental and organisational requirements.
3. Review, report and record work	3.1 Check, tag and report faulty equipment and tools. 3.2 Store equipment, tools and materials. 3.3 Complete workplace records.

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.

Range of Conditions

Network assets include:	• network water mains and services • network storages • network pump stations • bore fields
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Unit Mapping Information

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>

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Assessment Requirements for NWPNET022 Maintain and repair network assets for drinking water

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.

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. The candidate must be assessed on at least two of the network assets listed in the Range of Conditions. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- planning work site including personnel, equipment, materials
- requesting permits, approvals, other utilities diagrams and maps
- implementing appropriate controls
- using tools and specific water equipment
- selecting and applying appropriate PPE
- performing work-related calculations
- applying disinfection to tools and materials
- using communication tools including phones and laptops
- interpreting plans, instructions and procedures
- ensuring system hygiene and water quality
- determining location, size, utilities, services from plans, specifications and organisational procedures
- applying excavation techniques
- maintaining and repairing assets
- maintaining and repairing tanks by monitoring and operating flow-regulating devices to isolate tanks
- maintaining and repairing minor structures by laying concrete

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.

- system hydraulics basics
- environmental aspects of maintenance

- relevant legislation, policies and procedures
- material safety data sheets (SDS)
- landscape and ground structure of work area
- risk factors and potential hazards of maintenance processes
- equipment operation, capacity and limitations
- control systems
- disinfection of systems and chemical usage
- pipe systems and installation requirements
- characteristics of pipe materials
- testing and sampling systems
- corrosion principles applicable to service pipes and fittings
- operation of water meters
- formwork preparation and positioning
- methods of repairing concrete, brick and stone structures
- concrete placement techniques, including compaction
- relevant utilities and service bodies to identify allocation of road reserve
- effects of weather and conditions on construction site or plan
- requirements around excavation

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.

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