



Australian Government

NWPHYD013 Operate, maintain and decommission monitoring sites

Release: 1

NWPHYD013 Operate, maintain and decommission monitoring sites

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. This unit supersedes and is equivalent to NWP420A Install, operate and maintain hydrologic instruments and equipment. • 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 • Element 1 reworded • Element 2 removed • One new PC added to Element 1 and Element 3 • PC 1.1 removed • PC 1.3 revised

Application

This unit of competency describes the skills required to operate, maintain and decommission monitoring sites and related equipment and instruments. The role requires an understanding of the capacity, the original purpose of the site and the application of the instruments and equipment. It also requires the ability to test and maintain instruments, equipment and the site to provide accurate data.

This unit applies to hydrographers employed by the water industry and water operators involved in the monitoring of all the elements of the water cycle and their impact on the related environment.

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 manufacturers' specifications and requirements, WHS, Bureau of Meteorology, World Meteorological Organisation and Australian Standards.

Those undertaking this unit would work in small teams, mostly under supervision, while performing complex tasks in a broad range of contexts that could be unpredictable, including remote, confined spaces, near water and/or at heights.

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

Competency Field

Hydrography

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 the operation and maintenance of site, instruments and equipment	1.1 Identify monitoring objective of the site. 1.2 Prepare schedules for operation and maintenance. 1.3 Review the performance of instruments and equipment required for the site and its conditions. 1.4 Ensure that the manufacturers specifications are applied. 1.5 Address logistical requirements, prepare relevant equipment, authorisations and documentation required for the installation.
2. Maintain site	2.1 Maintain the site in accordance with the schedules and environmental conditions. 2.2 Assess conditions of the site and take corrective actions. 2.3 Review the effectiveness of the corrective actions. 2.4 Complete records.
3. Test, maintain and calibrate instruments, equipment and systems	3.1 Test assignment instruments and equipment. 3.2 Calibrate equipment. 3.3 Make and test adjustments to comply with the required tolerances. 3.4 Report errors or deviations from the appropriate range or tolerance levels. 3.5 Maintain test records. 3.6 Complete routine maintenance in accordance with maintenance schedules. 3.7 Store and protect instruments and equipment.
4. Operate monitoring equipment	4.1 Use monitoring equipment to collect data required by plan and purpose. 4.2 Make calculations and adjustments according to the requirements of the site and equipment.

	4.3 Check the accuracy and reliability of readings and confirm or adjust calibrations.
5. Decommission site	5.1 Demolish or decommission structures. 5.2 Restore sites. 5.3 Identify and address potential or actual problems and report to appropriate personnel.
6. Report processes and outcomes	6.1 Compile reports and data according to monitoring plan. 6.2 Identify potential and current problems proactively and take corrective action or report to relevant agents. 6.3 Identify indicators of urgency and high risk for priority response.

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 NWP420A Install, operate and maintain hydrologic instruments and equipment.

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 NWPHYD013 Operate, maintain and decommission monitoring sites

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.

- interpreting and applying technical documentation to the installation and maintenance of instruments and equipment
- applying mechanical, electrical and electronic skills to the installation and maintenance of instruments and equipment
- using computer systems and system analysis equipment and tools to conduct in situ calibration of monitoring equipment and systems
- using required work practices to minimise environmental impact of the installation process
- using safety equipment and personal protective equipment
- using hand and power tools
- identifying and responding to potential or actual operational problems
- conducting inspections
- producing basic reports
- collecting and analysing data
- reading and interpreting plans, specifications, maps and job instructions
- interpreting and applying technical information and applications related to the installation and maintenance of a range of hydrographic instruments and equipment
- conducting tests of a range of hydrographic instruments and equipment and making adjustments to maintain accuracy
- installing and maintaining a range of hydrographic instruments and equipment in a range of sites and conditions and under conditions of extreme weather and high risk
- analysing risks in a range of locations and conditions and working safely in routine and extreme conditions

- identifying, reporting and solving potential and current problems, and taking immediate action to address high risk conditions
- storing and protecting instruments and equipment by stowing them in appropriate containers for storage and transport and by protecting them
- drafting decommissioning report with authorisation
- implementing decommission procedure for data management, site database, telemetry and internet

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.

- mathematical and scientific principles appropriate to the work role
- operating parameters, processes and capacity limitations of hydrographic instruments and equipment
- electrical and/or electronic systems operating principles
- risk factors and potential hazards involved with installing and monitoring instruments and equipment
- effects of weather and conditions on operating of hydrographic instruments and equipment
- computer based instrument and/or system analysis software and packages
- WHS procedures
- standards relevant to the tasks

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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