



Australian Government

NWPHYD008 Operate, maintain and decommission monitoring sites

Release: 1

NWPHYD008 Operate, maintain and decommission monitoring sites

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 operate, maintain and decommission monitoring sites.

It includes planning the operation, maintenance and decommissioning of sites, instruments and equipment for monitoring. It also includes operating, testing, maintaining and calibrating instruments, equipment and systems and reporting processes and outcomes.

This unit applies to hydrographers and water operators involved in the monitoring of all the elements of the water cycle and their impact on the related environment. Those undertaking this unit would work autonomously, usually with supervisory responsibilities, while performing complex tasks in a range of contexts.

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

Pre-requisite Unit

Not applicable.

Competency Field

Hydrometric Monitoring

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 Plan the operation and maintenance of sites, instruments and equipment | 1.1 Identify monitoring objective of sites as per stakeholder agreements |
| | 1.2 Prepare schedules for operation and maintenance for monitoring sites |
| | 1.3 Review performance of instruments and equipment required for site and its conditions according to agency procedures and manufacturer specifications |
| | 1.4 Address logistical requirements, prepare relevant equipment, authorisations and documentation requirements for operational and maintenance inspections |
| 2 Maintain sites | 2.1 Maintain sites using tools and personal protective equipment according to schedules and environmental conditions |
| | 2.2 Assess conditions of sites and take corrective actions according to workplace procedures |
| | 2.3 Review the effectiveness of previous corrective actions undertaken at sites |
| | 2.4 Complete and store operational and maintenance records according to workplace procedures |
| 3 Test, maintain and calibrate instruments, equipment and systems | 3.1 Test hydrometric instruments and equipment |
| | 3.2 Calibrate equipment according to agency procedures and manufacturer specifications |
| | 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 to relevant stakeholders |
| | 3.5 Maintain and archive test records according to workplace procedures |
| | 3.6 Complete routine site maintenance according to maintenance schedules |

	3.7	Store and protect hydrometric instruments and equipment
4 Operate monitoring equipment	4.1	Use monitoring equipment to collect data required to meet monitoring objectives
	4.2	Make calculations and adjustments to monitoring equipment according to the requirements of the site and equipment
	4.3	After calibration and adjustment recheck accuracy and reliability of readings
5 Report processes and outcomes	5.1	Compile data reports according to monitoring objectives
	5.2	Identify potential and current problems proactively and take corrective action or report to relevant stakeholders
	5.3	Identify indicators of urgency and high risk for priority response
	5.4	Identify additional actions required following decommissioning of site
6 Decommission monitoring sites	6.1	Demolish or decommission monitoring sites according to workplace procedures
	6.2	Restore area of monitoring sites according to stakeholder or agency requirements
	6.3	Identify and address any potential or remaining problems and report to appropriate personnel

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.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to NWPHYD013 Operate, maintain and decommission monitoring sites.

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 NWPHYD008 Operate, maintain and decommission monitoring sites

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:

- analysing risks in a range of locations and conditions and working safely in routine and extreme conditions
- applying mechanical, electrical and electronic skills to the operation and maintenance of instruments and equipment according to agency operational procedures
- conducting inspections of monitoring sites
- conducting tests of a range of hydrometric instruments and equipment and adjusting to maintain accuracy
- drafting decommissioning report with authorisation
- identifying, reporting and solving potential and current problems, and taking immediate action to address high risk conditions
- implementing decommissioning procedures for data management, site database, telemetry and internet
- interpreting and applying technical documentation to the operation and maintenance of instruments and equipment
- interpreting and applying technical information and applications related to the operation and maintenance of a range of hydrometric instruments and equipment
- maintaining a range of hydrometric instruments and equipment in a range of sites and conditions and under conditions of extreme weather and high risk
- producing reports
- reading and interpreting plans, specifications, maps and job instructions
- recording and analysing data
- storing and protecting instruments and equipment in the field and during transportation
- using required work practices to minimise environmental impact of the operation and maintenance of site
- using systems and system analysis equipment and tools to conduct in situ calibration of monitoring equipment and systems
- using tools, safety and personal protective equipment

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 include knowledge of:

- effects of weather and extreme conditions on operating of hydrometric instruments and equipment
- electrical and electronic systems
- instrument and system analysis software and packages
- mathematical and scientific principles
- operating parameters, processes and capacity limitations of hydrometric instruments and equipment
- relevant legislation, industry standards, manufacturer specifications and requirements
- relevant workplace policies and procedures
- risk factors and potential hazards involved with installing and monitoring instruments and equipment
- workplace reporting requirements

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 workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate 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, equipment and personal protective equipment currently used in industry
- applicable documentation including legislation, regulations, codes of practice, workplace procedures and operation manuals.

Links

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