



Australian Government

NWPCAD016 Operate and maintain fishways

Release: 1

NWPCAD016 Operate and maintain fishways

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 and maintain fishways.

It includes operating and maintaining automated and manual fishways by regulating flows into fishway channels, including handling and disposing of fish.

This unit applies to field staff with the responsibility for operating fishways in remote locations. Those undertaking this unit will work independently under appropriate supervision while performing routine 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

Catchment and Dams

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare work

PERFORMANCE CRITERIA

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

- 1.1 Determine and apply the operational rules for the fishways from design reports
- 1.2 Perform worksite check to identify upstream flows entering the weir

	1.3	Plan gate opening and gate operations to ensure optimum fish attraction flows
	1.4	Develop plans for the maintenance of the fishways
2 Operate the fishways	2.1	Regulate weir and fishway gates to maintain fish attraction flows
	2.2	Identify, sort and record fish species and numbers
	2.3	Collect samples and conduct tests according to workplace procedures
	2.4	Identify operational faults in the fishway according to workplace procedures
3 Maintain the fishways	3.1	Inspect the fishway channel and identify maintenance needs
	3.2	Test equipment and schedule maintenance tasks according to maintenance plan
4 Finalise work	4.1	Monitor and record water flow and complete relevant documentation
	4.2	Collect fishway data from inspections and monitoring points
	4.3	Compile reports from the fishway data and report to relevant persons

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 NWPSOU032 Operate and maintain fishways.

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 NWPCAD016 Operate and maintain fishways

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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:

- collecting data
- collecting samples
- handling and disposing of fish
- identifying and investigating operational problems coordinating the operation of the fishway gates
- identifying fish species and their behaviour
- inspecting one or more of the following on the fishway channel to determine maintenance needs:
 - baffles
 - cages
 - gates
- interpreting design report
- performing maintenance on at least one of the following assets in the fishway channel:
 - lubricating gate slides
 - painting metal work
 - removing debris
 - repairing concrete
 - repairing lift equipment
- operating fishing handling equipment
- performing at least two of the following tests:
 - conductivity
 - dissolved oxygen
 - pH
 - temperature
- producing plans

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:

- blackwater problems
- fish biology including species and behavioural attributes
- fishway hydraulics
- fishway passage requirements
- maintenance requirements of fishway channel
- methods to collect and report on data
- operational rules for fishways
- relevant legislation, regulations and workplace procedures
- sample and test 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.

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