



Australian Government

NWPSOU028 Prepare and report on data related to flood operations

Release: 1

NWPSOU028 Prepare and report on data related to flood operations

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 NWP518B and NWP519B

Application

This unit describes the skills required to analyse and model data relating to flooding, develop effective management and warning systems, and communicate the outcomes concisely and effectively.

This unit applies to those working as planners and managers in water organisations with responsibility for the preparation of flood management strategies and flood warning systems.

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 autonomously with management responsibilities, while performing complex tasks in familiar contexts.

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

Competency Field

Source

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. Analyse rainfall	1.1 Access and interpret historical rainfall run-off and flooding

and run-off regimes	regimes of specific catchments. 1.2 Study records to determine previous rainfall amounts, durations and time taken to reach catchment. 1.3 Model simulated, hypothetical or estimated rainfall intensity data and model catchment. 1.4 Collate, manipulate and interpret data.
2. Estimate flooding	2.1 Estimate and record flood levels, extents and flow rates using organisational techniques and guidelines. 2.2 Assess and record flood hazard.
3. Determine management and warning systems	3.1 Evaluate the roles of storage and/or retarding basins safety and flood attenuation strategies. 3.2 Evaluate current flood classifications and impacts. 3.3 Formulate planning controls for flood plain or waterway management. 3.4 Evaluate current flood warning systems. 3.5 Recommend or develop changes to existing flood plain or waterway management controls and warning systems.
4. Report and communicate recommendations	4.1 Collate, analyse and record information. 4.2 Prepare and present reports. 4.3 Communicate findings and recommendations to stakeholders.

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

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 NWPSOU028 Prepare and report on data related to flood operations

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. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- using mathematical techniques to analyse and model flood data
- communicating with a range of stakeholders
- analysing and developing flood mitigation warning systems and strategies
- developing critical flood warning systems
- developing strategies to mitigate the impact of potential future floods

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.

- catchment hydrology principles
- water flow measurement, flow routing
- relevant legislation, by-laws and planning schemes
- mathematical calculation
- cultural environment
- occupational health and safety and environmental legislation, Acts and procedures

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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