



Australian Government

**Assessment Requirements for
NWPHYD014 Measure and process
medium and high flows using a range of
methods and equipment**

Release: 1

Assessment Requirements for NWP HYD014 Measure and process medium and high flows using a range of methods and equipment

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit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. The candidate must be assessed in at least one of the methods 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.

- using area velocity method
- assessing risks and applying precautions and action
- estimating and explaining the anticipated vertical distribution
- making calculations on depth and velocity
- maintaining the integrity of measurements
- using a range of suitable techniques to determine mean stage in rapidly changing situations
- adjusting measurements
- plotting discharge measurements on organisation's preferred scale
- using formulae for determining the percentage deviation
- using systems and/or software to transfer calculated flows to official database
- assembling and testing metering equipment
- checking and preparing gauging section
- setting tag lines
- measuring and calculating readings
- gathering, analysing, verifying, interpreting, storing, archiving and reporting data for a range of clients and stakeholders
- interpreting complex documentation
- sampling
- identifying, reporting and solving potential or current problems within scope of job function.

- recording the percentage deviation from the rating determined by checking:
 - calculations
 - equipment
 - control
 - recording equipment
 - repeat measurement
- gathering and documenting supporting information from the site (i.e. gauging section location and access maps, photographic records, site preparation undertaken, comments on issues encountered, data management and reporting)

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.

- principles and alternative methods of discharge measurement
- methods for calculating mean velocity in a vertical
- methods for determining the cross-sectional area at a site
- requirements for surface, single and multipoint floats
- basic mathematical principles for area and velocity measurements
- correction procedures for horizontal angles and suspension measurements
- techniques for monitoring stage changes during discharge measurement
- weighted mean stage calculations
- discharge and mean stage adjustment
- technical components in calculating discharge
- factors impacting on discharge measurements and the quality of the discharge
- formulae to adjust gauging
- potential impacts of modifications of site, method or equipment on discharge accuracy
- confidence limits

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.

Measuring and processing flows: Assessment must occur on a minimum of two separate occasions, in at least two different locations, using a minimum of two different methods from a broad range of complex methods, with a maximum of one out of two from area velocity methods

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>