



Australian Government

Department of Education, Employment and Workplace Relations

NWP316B Monitor and schedule water deliveries

Revision Number: 2

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Modification History

NWP316B Release 2: Layout adjusted. No changes to content.

NWP316B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to schedule water deliveries for irrigation and/or domestic and stock supply systems, including monitoring flows, analysing data, coordinating hydraulic processes and compiling operational reports.

Application of the Unit

This unit supports the attainment of skills and knowledge required for field staff and operators with a specific responsibility for ensuring that water deliveries meet varying customer requirements.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Where <i>bold italicised</i> text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Schedule water deliveries.	1.1 Identify and record customer water orders. 1.2 Analyse water orders to determine water delivery and flow rate requirements. 1.3 <i>Schedule water deliveries</i> to meet flow rate requirements and organisational standards for channel balance and capacity restraints.
2 Monitor water delivery.	2.1 Monitor channel flow rate, regulation and delivery according to customer requirements. 2.2 Maintain delivery performance records according to organisational requirements. 2.3 Analyse system performance using system data and records to determine actual and planned performance.
3 Coordinate and control water delivery.	3.1 Calculate system adjustments according to demand and organisational requirements. 3.2 Coordinate flow regulation, channel levels, security of flow devices and settings according to demand and organisational requirements.
4 Compile reports and records of water delivery.	4.1 Compile reports from system performance data according to organisational requirements. 4.2 Maintain appropriate measurements and delivery records according to organisational requirements.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- identifies and responds to operational problems
- produces basic reports and logs
- operates communications equipment
- gives and receives instructions
- follows plans, charts and instructions
- uses safety equipment and personal protective equipment
- communicates with customers and other employees
- works effectively as part of a team
- performs work related calculations
- operates irrigation and/or domestic stock supply system
- checks channel flow
- identifies control system faults

Required knowledge:

- system hydraulics
- impact of the principles of hydraulics on the operation of flows
- coordination processes
- principles of scheduling
- system layout
- system operations
- policies and standard operating procedures
- communication systems
- lock out procedures for mechanical and electrical installations
- environmental aspects of irrigation and/or stock and domestic supply system asset infrastructure
- safety procedures
- environment, landscape and ground structure of work area
- risk factors and potential hazards of irrigation and/or domestic and stock supply systems
- equipment operation, capacity and limitations
- effects of weather and conditions on operation of site plant
- water flow calculations
- flow measurement procedures
- gravity systems
- control systems

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to schedule water deliveries for irrigation and/or domestic and stock supply systems including:

- analysing volumes and flow rates required for water deliveries
- preparing schedules for water deliveries from customer orders
- monitoring and regulating system performance
- adjusting system according to demand
- coordinating flow regulating devices
- completing relevant documentation

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards, and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and/or assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence only taken at the point when the assessor has complete confidence in the person's competence over time and in various contexts
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence
- where assessment is for the purpose of recognition

(RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time

- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the skill levels of the operator, any cultural issues that may affect responses to the questions, and reflecting the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Schedule water deliveries may include:

- interaction and communication with:
 - team members
 - other authorities
 - the general public
- implementation of reporting procedures that may also include:
 - procedures for the implementation of by-laws
 - organisational policies
 - standard operating procedures
 - statutory requirements

Unit Sector(s)

Not applicable.

Competency field

Collection and distribution.