NWP50118 Diploma of Water Industry Operations

Modification History

Release 1 – This is the first release of this qualification in NWP National Water Training Package.

Qualification Description

This is a qualification for those engaged in water industry operations and includes specialisations for asset management, control centre operations, hydrographic survey, hydrology, irrigation, networks, source, trade waste and treatment.

The general qualification covers skills and knowledge to obtain a broad range of skills in the water industry. It allows experienced staff to apply advanced practice and develop leadership roles.

Group A: Specialist Elective - Asset Management

This specialisation covers the skills and knowledge required to analyse, develop and implement asset management plans to support and optimise risk, performance and life-cycle costs of water operations assets.

Group B: Specialist Elective - Control Centre Operations

This specialisation covers the skills and knowledge required to monitor, review, diagnose, test, operate and respond to network operations using supervisory control and data acquisition (SCADA) systems to meet water quantity and quality requirements.

Group C: Specialist Elective – Hydrographic Survey

This specialisation covers the skills and knowledge required to collect hydrographic data, determine features of marine floors, prepare and revise maps and charts and analyse, present and maintain graphical information about marine environments. Completion of this specialist grouping may lead to certification as a hydrographic surveyor.

Group D: Specialist Elective - Hydrology

This specialisation covers the skills and knowledge required to measure, collect and analyse hydrometric information and review the accumulated data to develop water management plans for inland water systems including rivers, lakes, stormwater and sewage.

Group E: Specialist Elective - Irrigation

This specialisation covers the skills and knowledge required to coordinate and manage the development, implementation and review of irrigation plans and systems.

Group F: Specialist Elective - Networks

This specialisation covers the skills and knowledge required to monitor and manage network operations including collection and treatment of drinking water and wastewater.

Group G: Specialist Elective - Source
This specialisation covers the skills and knowledge required to monitor and manage water provisioning from water sources including seawater, dams and reservoirs, rivers and bores.

**Group H: Specialist Elective - Trade Waste**
This specialisation covers the skills and knowledge required to coordinate and manage the development, implementation and review of trade waste programs.

**Group I: Specialist Elective - Treatment**
This specialisation covers the skills and knowledge required to manage water supply assets including storage and service reservoirs, treatment plants, pumping stations, transfer mains, pressure reducing valves and hydro generation facilities.

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

**Entry Requirements**
There are no entry requirements for this qualification.

**Packaging Rules**
A total of 10 units of competency comprising:

**General Qualification**
- 2 core units listed below plus
- 4 units selected from any of the specialist elective group units plus
- 4 units selected from anywhere within this qualification

or

**Specialisations**
- 2 core units listed below plus
- 4 units from one of the specialist elective groups A, B, D, E, F, G, H or I listed below or 7 units from specialist elective group C listed below plus
- remaining elective unit(s) to be selected from anywhere within this qualification.

Up to 2 of the elective units may be selected from any relevant nationally endorsed Training Package or accredited course. The elective units must contribute to the vocational outcomes of the qualification. Where imported units are selected, care must be taken to ensure all prerequisite units specified are complied with.

Elective units can only be counted once towards the qualification packaging rules i.e. if a unit is listed in both a specialist elective group and the general elective group, it can only be counted as one of the elected units required.

**Core units**

NWPGEN016 Interpret and comply with regulatory requirements
TLIF4014  Develop and maintain a safe workplace

**Group A: Asset Management**

MSS404082  Assist in implementing a proactive maintenance strategy
MSS405081  Develop a proactive maintenance strategy
NWPAMG001  Manage asset construction and maintenance
RIISAM601D  Establish and maintain plant, equipment and infrastructure maintenance system
TLIL4059  Implement asset management systems
TLIX4027  Assess maintenance spares and manage repairable items

**Group B: Control Centre Operations**

NWPCCO001  Analyse and implement network data
NWPCCO002  Use control centre systems to monitor and control water
UEPOPS347B  Operate and monitor supervisory, control and data acquisition systems
UEPOPS423B  Plan a scheduled outage
PMAOPSS330  Communicate and monitor pipeline activities

**Group C: Hydrographic Survey**

NWPHYS001  Identify and analyse information technology for hydrographic surveys
NWPHYS002  Interpret and analyse science principles for hydrographic surveying
NWPHYS003  Manage and analyse water levels and flows
NWPHYS004  Manage hydrographic surveying projects
NWPHYS005  Use alternate positioning systems to gather data
NWPHYS006  Use remote sensing for hydrographic surveying
NWPHYS007  Use underwater acoustics to map waterways

**Group D: Hydrology**

MSS024007  Collect and evaluate meteorological data
NWPHYD002  Apply principles of open channel hydraulics
NWPHYD003  Develop and maintain ratings
NWPHYD004  Plan water resource management
NWPHYD005  Process and report hydrographic time series data
NWPHYD011  Measure and process low and medium flows using area velocity methods
NWPHYD015  Undertake surveying of monitoring sites

Group E: Irrigation

NWPIRR004  Develop and review a groundwater plan
NWPIRR005  Develop and review a surface water plan
NWPIRR006  Develop and review an irrigation system plan
NWPIRR007  Implement and coordinate a surface water plan
NWPIRR008  Implement and coordinate an irrigation delivery system plan

Group F: Networks

LGAWORK501A  Prepare preliminary design for operational works
NWPAMG001  Manage asset construction and maintenance
NWPNET006  Apply construction principles to civil works in the water industry
NWPNET007  Conduct commissioning and post-commissioning activities
NWPNET008  Develop and manage a drinking water system plan
NWPNET009  Develop and manage a wastewater collection plan
NWPNET010  Develop and manage an alternate water supply plan

Group G: Source

NWPSOU004  Develop and manage a catchment plan
NWPSOU005  Develop and manage a dam safety inspection plan
NWPSOU006  Develop and manage a flood plan
NWPSOU007  Implement and coordinate a catchment plan
NWPSOU008  Implement and coordinate a groundwater plan

Group H: Trade Waste
NWPGEN014 Sample and test trade wastewater
NWPTRD003 Evaluate, implement and monitor high risk trade waste discharge approvals
NWPTRD004 Implement and manage trade waste policies and plans
NWPTRD005 Develop and modify trade waste policies and plans

Group I: Treatment
MSL976005 Evaluate and select appropriate test methods and/or procedures
NWPTRT002 Develop and manage a treatment process monitoring program
NWPTRT003 Develop and manage a wastewater treatment plan
NWPTRT004 Develop and manage a water treatment plan
NWPTRT011 Assess and improve chemical dosing process
NWPTRT085 Assess and improve wastewater processes to control microbial impacts

General elective units
AHCLPW306 Undertake sampling and testing of water
BSBFIM501 Manage budgets and financial plans
BSBLED401 Develop teams and individuals
BSBMGT502 Manage people performance
BSBMGT516 Facilitate continuous improvement
BSBMGT517 Manage operational plan
BSBPMG522 Undertake project work
BSBSMB407 Manage a small team
BSBWH501 Ensure a safe workplace
BSBWH502 Manage effective WHS consultation and participation processes
BSBWH503 Contribute to the systematic management of WHS risk
BSBWH504 Manage WHS risks
BSBWH505 Investigate WHS incidents
BSBWRT401    Write complex documents
CHCCOM003    Develop workplace communication strategies
CPPSIS4022   Store and retrieve spatial data
CPPSIS5032   Capture new spatial data
CPPSIS5040   Interpret and collate spatial data
FSKNUM27     Collect, organise and interpret statistical data for work
LGAWORK502A  Prepare detailed works project documentation
LGAWORK503A  Undertake project investigation
MSL936004    Conduct an internal audit of the quality system
MSS025006    Collect and evaluate groundwater data
NWPGEN002    Ensure compliance with water industry standards, guidelines and legislation
NWPGEN006    Implement and manage environmental management policies
NWPSOU053    Coordinate and monitor groundwater system usage
NWPTRD024    Establish connections of water and wastewater systems
PMAOMIR512   Establish incident response preparedness and response systems
PSPPCM011    Plan to manage a contract
PUAEMR028    Develop emergency management plans
TAEASS301    Contribute to assessment
TAEDEL402    Plan, organise and facilitate learning in the workplace
TAEDEL404    Mentor in the workplace
TLIR5005     Manage a contract

Qualification Mapping Information

This qualification replaces but is not equivalent to NWP50715 Diploma of Water Industry Operations
Links

Companion Volume Implementation Guides are found in VETNet -