

**Victorian Purchasing Guide
for
NWP07 Water Training Package
Version No 3**

September 2012





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Victorian Purchasing Guide — Version History

Training Package Version	Date VPG Approved	Comments
NWP07 Version 3	25 Sept 2012	<p>Three new units were included in the Certificate II and III in Water Operations to meet specific standards gaps:</p> <ul style="list-style-type: none"> • NWP279 Demonstrate knowledge of the risk management principles of the Australian drinking water guidelines • NWP369 Monitor, operate and control lagoon processes • NWP370 Perform water industry calculations <p>Nine new units were included as electives in the existing NWP50107 Diploma of Water Operations:</p> <ul style="list-style-type: none"> • NWP552 Apply mathematical solutions to engineering problems • NWP553 Apply scientific principles to engineering problems • NWP554 Apply surveying computations to civil engineering projects • NWP555 Apply construction principles to civil engineering works • NWP556 Apply environmental solutions to engineering projects • NWP557 Apply surveying for civil engineering projects • NWP558 Use computer aided drafting systems • NWP559 Apply principles of mechanics to engineering problems • NWP560 Apply principles of strength of materials to engineering problems <p>Ten new units were included in the new NWP60112 Advanced Diploma of Water Engineering Design:</p> <ul style="list-style-type: none"> • NWP601 Design a water reticulation scheme • NWP602 Design gravity sewerage systems • NWP603 Design pressure sewerage systems • NWP604 Manage the construction of pipeline systems • NWP605 Plan sewerage reticulation systems • NWP606 Plan water reticulation systems • NWP607 Manage drinking water quality information • NWP608 Design sewerage pumping station systems • NWP609 Manage assets in a water utility • NWP610 Apply statistical methods for quality control and reliability <p>Three updated imported units of competency:</p> <ul style="list-style-type: none"> • BSBWOR301B Organise personal work priorities and development • BSBWOR404B Develop work priorities • AHCLPW306A Undertake sampling and testing of water

NWP07 Water Training Package Victorian Purchasing Guide

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INTRODUCTION

What is a Victorian Purchasing Guide?

The Victorian Purchasing Guide provides information for use by Registered Training Organisations (RTOs) in the provision of Victorian government subsidised training.

Specifically the Victorian Purchasing Guide provides the following information related to the delivery of nationally endorsed Training Packages in Victoria:

- The nominal hour range (minimum-maximum) available for each qualification.
- Nominal hours for each unit of competency within the Training Package.
- Sample Training Programs

Registration

RTOs must be registered by either the Victorian Registration and Qualifications Authority (VRQA) or the Australian Skills Qualification Authority (ASQA) regulatory body to be eligible to issue qualifications and statements of attainment under the Australian Quality Framework (AQF).

The VRQA is the regulatory authority for Victoria that registers VET training organisations who provide courses to domestic students only and who only offer training in Victoria.

To register to provide training to international students and in other Australian states and territories you will need to apply with ASQA.

QUALIFICATIONS

Code	Title	Qualification Nominal Hour Range	
		Minimum	Maximum
NWP10110	Certificate I in Water Sustainability	168	250
NWP20107	Certificate II in Water Operations	204	350
NWP30107	Certificate III in Water Operations	310	660
NWP40107	Certificate IV in Water Operations	340	680
NWP50107	Diploma of Water Operations	370	850
NWP60112	Advanced Diploma of Water Engineering Design	570	860
NWP70107	Vocational Graduate Certificate in Water Industry Leadership	440	480

UNITS OF COMPETENCY AND NOMINAL HOURS

RTOs are advised that there is a mapping table inside each Training Package that describes the relationship between new units and superseded or replaced units from the previous version of **NWP07 Water Training Package**. Information regarding transition arrangements can be obtained from the state or national VET Regulating Authority (see Contacts and Links section).

You must be sure that all training and assessment leading to qualifications or Statements of Attainment from the **NWP07 Water Training Package** is conducted against the Training Package units of competency and complies with the requirements in the assessment guidelines.

Listing of the Units of Competency and Nominal Hours

Unit Code	Unit Title	Nominal Hours
NWP101B	Investigate sustainable water cycle management	30
NWP102B	Design a basic water system model	30
NWP103B	Demonstrate care and safe practices	20
NWP104B	Sample and test water sources and quality	40
NWP105B	Draw and use simple maps, plans and drawings	20
NWP201B	Follow defined OHS procedures and regulatory requirements	30
NWP202B	Apply environmental and licensing procedures	30
NWP203B	Plan and organise personal work activities	20
NWP207A	Work effectively in the water industry	20
NWP208A	Perform basic wastewater tests	20
NWP209B	Use maps, plans, drawings and specifications	30
NWP210B	Perform basic water quality tests	20
NWP211B	Use computerised systems	20
NWP213B	Monitor and operate irrigation, stock and domestic delivery systems	30
NWP215B	Install and replace basic volumetric metering equipment	30
NWP216B	Install basic metering equipment and flow control devices for irrigation systems	30
NWP218B	Perform and record sampling	20
NWP219A	Work safely in confined spaces	20
NWP220B	Collect and control drainage run-off	20
NWP221A	Operate basic flow control and regulating devices in water or wastewater treatment network systems	20
NWP222A	Operate basic flow control and regulating devices in irrigation systems	20
NWP223A	Install basic metering equipment, flow control and regulating devices	40
NWP226B	Prepare and restore work site	30
NWP227B	Control vegetation on a site	20
NWP229B	Repair minor structures	20
NWP230B	Maintain and repair irrigation channels and drains	30
NWP231B	Maintain and repair drainage assets	30

Unit Code	Unit Title	Nominal Hours
NWP232B	Operate water reticulation and distribution system	30
NWP233B	Construct and install water distribution assets	30
NWP234B	Locate, identify and protect utility services	30
NWP239B	Identify and apply water entitlements and delivery processes	30
NWP240B	Inspect and report catchment and surrounding areas	20
NWP241B	Inspect and maintain basic dams and water storages	30
NWP242B	Monitor and report water extraction	20
NWP243B	Operate bore fields and groundwater source systems	20
NWP244B	Maintain and repair bulkwater assets	30
NWP245B	Maintain tanks and water storage assets	30
NWP246B	Inspect and maintain public facilities	20
NWP247A	Maintain catchment and surrounding areas	40
NWP250B	Construct and install wastewater pipelines	30
NWP251B	Construct open earthen channels or drains	30
NWP252B	Construct and install irrigation delivery and stormwater drainage assets	30
NWP253B	Install and repair water services	40
NWP254B	Repair or insert water distribution assets	30
NWP255B	Maintain and repair wastewater collection assets	20
NWP256B	Monitor and report water distribution systems	30
NWP257B	Maintain and repair wastewater collection systems	30
NWP258B	Monitor and operate bulkwater transfer systems	30
NWP259B	Operate, monitor and maintain pump stations	30
NWP260A	Monitor and report water treatment processes	30
NWP261A	Operate and maintain water treatment plant and equipment	30
NWP262A	Monitor and report wastewater treatment processes	30
NWP263A	Operate and maintain wastewater treatment plant and equipment	30
NWP264B	Monitor, operate and report wastewater pre-treatment processes	20
NWP268B	Monitor, operate and report chlorine disinfection systems	30
NWP270B	Monitor, operate and report basic anaerobic processes	20
NWP271B	Monitor, operate and report sedimentation processes	20
NWP272B	Monitor, operate and report wastewater lagoon processes	30
NWP273A	Monitor, operate and report ultraviolet irradiation disinfection systems	20
NWP274A	Monitor, operate and report ozone treatment systems	30
NWP275A	Monitor, operate and report chlorine dioxide systems	30
NWP276A	Monitor, operate and report fluoridation processes	20
NWP277A	Work safely with liquefied chlorine gas	10

Unit Code	Unit Title	Nominal Hours
NWP278A	Perform blue green algae sampling	10
NWP279	Demonstrate knowledge of the risk management principles of the Australian drinking water guidelines	10
NWP300B	Provide and promote customer service	20
NWP301B	Implement, monitor and coordinate environmental procedures	40
NWP302A	Install meters for non-potable, non-urban water supplies	30
NWP303A	Monitor and control maintenance of water and wastewater system assets	50
NWP304A	Maintain meter for non-potable, non-urban water supplies	20
NWP305B	Monitor and conduct minor maintenance on complex flow control and metering devices	40
NWP308B	Test and commission wastewater collection systems	40
NWP309B	Test and commission water distribution systems	40
NWP310B	Monitor and operate water distribution systems	40
NWP311B	Monitor and operate wastewater collection and transfer systems	40
NWP315B	Investigate and report breaches of water industry legislation	40
NWP316B	Monitor and schedule water deliveries	40
NWP317B	Control water quality in distribution systems	30
NWP318A	Monitor and operate gated spillways	50
NWP319A	Monitor and control dam operations	50
NWP320B	Monitor and implement dam maintenance	30
NWP321B	Inspect and operate groundwater regulation	40
NWP322B	Inspect and operate surface water systems	40
NWP323B	Monitor and coordinate catchment operations	30
NWP324B	Inspect and report river regulation operations	30
NWP326A	Conduct and report dam safety instrumentation monitoring	30
NWP327A	Inspect and report on concrete dam safety	30
NWP328A	Inspect and report on embankment dam safety	30
NWP330B	Establish positions of underground utilities using locating devices	30
NWP331B	Inspect conduit and report on condition and features	40
NWP332B	Monitor and control drainage operations	40
NWP333B	Monitor and control rural water distribution operations	40
NWP338B	Perform infiltration and odour investigations	40
NWP339B	Perform leak detection	40
NWP340A	Measure and process hydrometric stream discharge data using wading gaugings	60

Unit Code	Unit Title	Nominal Hours
NWP342A	Commission, decommission and monitor hydrometric sites, stations and facilities	100
NWP345B	Monitor, operate and control water treatment processes	70
NWP346B	Monitor, operate and control wastewater treatment processes	70
NWP347B	Monitor, operate and control coagulation and flocculation processes	50
NWP348B	Monitor, operate and control sedimentation and clarification processes	40
NWP349B	Monitor, operate and control incineration processes	40
NWP350B	Monitor, operate and control trickling filter processes	30
NWP351B	Monitor, operate and control activated sludge processes	50
NWP352B	Monitor, operate and control dissolved air flotation processes	30
NWP353B	Monitor, operate and control anaerobic bioreactor processes	40
NWP354B	Monitor, operate and control granular media filtration processes	50
NWP355B	Monitor, operate and control membrane filtration processes	30
NWP356B	Monitor, operate and control ion exchange processes	30
NWP357B	Monitor, operate and control reverse osmosis and nano-filtration processes	30
NWP359B	Monitor, operate and control nutrient removal processes	40
NWP360B	Monitor, operate and control dewatering processes	30
NWP361B	Monitor, operate and control gas scrubber treatment processes	30
NWP362B	Monitor, operate and control reclaimed water irrigation	40
NWP363B	Monitor performance and control maintenance of treatment plant assets	40
NWP364B	Perform laboratory testing	40
NWP365A	Identify and confirm blue green algae outbreaks	20
NWP366A	Monitor, operate and control chloramination disinfection processes	40
NWP367A	Monitor, operate and control activated carbon adsorption processes	30
NWP368A	Respond to blue green algae incidents	30
NWP369	Monitor, operate and control lagoon processes	30
NWP370	Perform water industry calculations	30
NWP401B	Coordinate and monitor the application of environmental plans and procedures	80
NWP403A	Investigate and plan the optimisation of potable water distribution systems	50
NWP404A	Apply principles of chemistry to water systems and processes	50
NWP406A	Investigate and plan the optimisation of granular media filtration processes	60
NWP407A	Investigate and plan the optimisation of dissolved air flotation processes	60

Unit Code	Unit Title	Nominal Hours
NWP408A	Investigate and plan the optimisation of sedimentation and clarification processes	60
NWP409A	Investigate and plan to optimise the operation of chemical addition processes	60
NWP410C	Coordinate and monitor asset construction and maintenance	70
NWP411A	Select treatment requirements for waterborne microorganisms	50
NWP412A	Investigate and plan the optimisation of activated sludge processes	60
NWP413A	Investigate and plan the optimisation of anaerobic treatment processes	60
NWP414A	Select strategies to control microbial impact on wastewater treatment processes	40
NWP415B	Coordinate and monitor surface water systems	60
NWP416B	Coordinate and monitor water storage catchment activities	60
NWP417B	Coordinate and monitor groundwater system usage	60
NWP418B	Coordinate and monitor bulkwater system operations	60
NWP419B	Coordinate and monitor river system usage	60
NWP420A	Install, operate and maintain hydrometric instruments and equipment	130
NWP421A	Collect, measure and process hydrometric stream discharge gauging	100
NWP425B	Coordinate and monitor the operation of irrigation delivery systems	60
NWP427B	Coordinate and monitor the operation of drainage systems	60
NWP428B	Coordinate and monitor the operation of wastewater collection systems	60
NWP429B	Coordinate, implement and report trade waste monitoring procedures	60
NWP430A	Evaluate, implement and monitor standard low-risk trade waste discharge approvals	60
NWP431A	Investigate, rectify and report on trade waste incidents	70
NWP432A	Contribute to continuous improvement of quality systems	40
NWP440A	Supervise conduit inspection and reporting	40
NWP504A	Collect and manage hydrometric station survey data	60
NWP505B	Implement and manage environmental management policies, plans, procedures and programs	100
NWP508A	Apply principles of hydraulics to pipe and channel flow	160
NWP509A	Collect, verify and report hydrometric time series data	100
NWP510A	Develop and maintain ratings	100
NWP511B	Manage dam safety surveillance	100
NWP512B	Implement and manage catchment management plan	120
NWP513B	Develop and review catchment management plan	100
NWP514B	Implement and manage groundwater management plan	100
NWP515B	Develop and review groundwater management plan	100
NWP516B	Implement and manage surface water management plan	120

Unit Code	Unit Title	Nominal Hours
NWP517B	Develop and review surface water management plan	120
NWP518B	Prepare and report on data related to flood mitigation	80
NWP519B	Develop and report flood mitigation	80
NWP520A	Contribute to hydrometric planning and water resource management	100
NWP525B	Implement and manage asset construction and maintenance	100
NWP527B	Conduct commissioning and post commissioning activities	120
NWP528B	Implement and manage trade waste management policies and plans	80
NWP529B	Develop and modify trade waste policies and plans	100
NWP530B	Implement and manage the operation and maintenance of irrigation delivery systems	80
NWP531B	Develop and review irrigation system management plan	100
NWP532B	Implement and manage potable water system management plan	80
NWP533B	Develop and review potable water system management plan	100
NWP534B	Implement and manage drainage system management plan	80
NWP535B	Develop and review drainage system management plan	100
NWP536B	Implement and manage wastewater collection management plan	80
NWP537B	Develop and review wastewater collection management plan	100
NWP545B	Implement and manage water treatment processes monitoring program	80
NWP546B	Develop and review water treatment process management plan	120
NWP547B	Implement and manage wastewater treatment processes monitoring program	80
NWP548B	Develop and review wastewater treatment management plan	120
NWP551A	Evaluate, implement and monitor high-risk trade waste discharge approvals	120
NWP552	Apply mathematical solutions to engineering problems	80
NWP553	Apply scientific principles to engineering problems	60
NWP554	Apply surveying computations to civil engineering projects	60
NWP555	Apply construction principles to civil engineering works	45
NWP556	Apply environmental solutions to engineering projects	40
NWP557	Apply surveying for civil engineering projects	40
NWP558	Use computer aided drafting systems	80
NWP559	Apply principles of mechanics to engineering problems	60
NWP560	Apply principles of strength of materials to engineering problems	60
NWP601	Design a water reticulation scheme	80
NWP602	Design gravity sewerage systems	60
NWP603	Design pressure sewerage systems	60
NWP604	Manage the construction of pipeline systems	60
NWP605	Plan sewerage reticulation systems	80
NWP606	Plan water reticulation systems	80

Unit Code	Unit Title	Nominal Hours
NWP607	Manage drinking water quality information	80
NWP608	Design sewerage pumping station systems	60
NWP609	Manage assets in a water utility	60
NWP610	Apply statistical methods for quality control and reliability	60
NWP701A	Contribute to the development of a complex water organisation	100
NWP702A	Apply water industry legislation, codes and standards	100
NWP703A	Lead water planning processes	120
NWP704A	Lead a project development	120
NWP705A	Provide leadership in hydrometric network planning and water resource management	120
NWP706A	Review and evaluate water and wastewater sustainability objectives	120
NWP707A	Analyse and review water treatment plant technology	120
BSBOHS303B	Contribute to OHS hazard identification and risk assessment	30
BSBWOR301B	Organise personal work priorities and development	30
LGACOM405B	Implement and monitor the organisation's OHS policies, procedures and programs within the work group or section	20
PSPSOHS501A	Participate in the coordination and maintenance of a systematic approach to managing OHS	50

SAMPLE TRAINING PROGRAMS

A range of Sample Training Plans have been provided to demonstrate the flexibility of qualifications contained in the **NWP07 Water Training Package**, but are by no means mandatory.

Occupation / Work Function	Prevocational qualification – pre-employment preparatory qualification	
Qualification Title	Certificate I in Water Sustainability	
Qualification Code	NWP10207	
Description	This is an introductory qualification that provides a pathway into the water industry.	
Unit Code	Unit Title	Hours
Core		
NWP101B	Investigate sustainable water cycle management	30
NWP102B	Design a basic water system model	30
NWP103B	Demonstrate care and safe practices	20
NWP104B	Sample and test water sources and quality	40
Electives		
NWP105B	Draw and use simple maps, plans and drawings	20
BSBWOR204A	Use business technology	20
BSBITU201A	Produce simple word processed documents	60
Total hours		220

Occupation / Work Function	Irrigation Operations Officer	
Qualification Title	Certificate II in Water Operations	
Qualification Code	NWP20107	
Description	This qualification has been designed for a water industry worker who operates a set of channels to supply farms for irrigation and/or domestic and stock supplies.	
Unit Code	Unit Title	Hours
Core		
NWP201B	Follow defined OHS procedures and regulatory requirements	30
NWP202B	Apply environmental and licensing procedures	30
NWP203B	Plan and organise personal work activities	20
Electives		
NWP207A	Work effectively in the water industry	20
NWP209B	Use maps, plans, drawings and specifications	30
NWP211B	Use computerised systems	20
NWP213B	Monitor and operate irrigation, stock and domestic delivery systems	30
NWP216B	Install basic metering equipment and flow control devices for irrigation systems	30
NWP222A	Operate basic flow control and regulating devices in irrigation systems	20
NWP229B	Repair minor structures	20
NWP239B	Identify and apply water entitlements and delivery processes	30
Total hours		280

Occupation / Work Function	Irrigation Construction and Maintenance Officer	
Qualification Title	Certificate II in Water Operations	
Qualification Code	NWP20107	
Description	This qualification has been designed for a water industry worker who constructs and maintains channels and drains in a number of settings.	
Unit Code	Unit Title	Hours
Core		
NWP201B	Follow defined OHS procedures and regulatory requirements	30
NWP202B	Apply environmental and licensing procedures	30
NWP203B	Plan and organise personal work activities	20
Electives		
NWP209B	Use maps, plans, drawings and specifications	30
NWP216B	Install basic metering equipment and flow control devices for irrigation systems	30
NWP226B	Prepare and restore work site	30
NWP227B	Control vegetation on a site	20
NWP229B	Repair minor structures	20
NWP230B	Maintain and repair irrigation channels and drains	30
NWP231B	Maintain and repair drainage assets	30
NWP251B	Construct open earthen channels or drains	30
Total hours		300

Occupation / Work Function	Diversions Officer	
Qualification Title	Certificate II in Water Operations	
Qualification Code	NWP20107	
Description	This qualification has been designed for a water industry worker who inspects and operates groundwater and surface water systems and measures and reports river flows.	
Unit Code	Unit Title	Hours
Core		
NWP201B	Follow defined OHS procedures and regulatory requirements	30
NWP202B	Apply environmental and licensing procedures	30
NWP203B	Plan and organise personal work activities	20
Electives		
NWP207A	Work effectively in the water industry	20
NWP211B	Use computerised systems	20
NWP216B	Install basic metering equipment and flow control devices for irrigation systems	30
NWP226B	Prepare and restore work site	30
NWP229B	Repair minor structures	20
NWP239B	Identify and apply water entitlements and delivery processes	30
NWP240B	Inspect and report catchment and surrounding areas	20
NWP242B	Monitor and report water extraction	20
Total hours		270

Occupation / Work Function	Urban Networks Operator	
Qualification Title	Certificate II in Water Operations	
Qualification Code	NWP20107	
Description	This qualification has been designed for a water industry worker who specialises in water distribution systems maintenance.	
Unit Code	Unit Title	Hours
Core		
NWP201B	Follow defined OHS procedures and regulatory requirements	30
NWP202B	Apply environmental and licensing procedures	30
NWP203B	Plan and organise personal work activities	20
Electives		
NWP207A	Work effectively in the water industry	20
NWP209B	Use maps, plans, drawings and specifications	30
NWP211B	Use computerised systems	20
NWP221A	Operate basic flow control and regulating devices in water or wastewater treatment network systems	20
NWP226B	Prepare and restore work site	30
NWP232B	Operate water reticulation and distribution system	30
NWP234B	Locate, identify and protect utility services	30
NWP256B	Monitor and report water distribution systems	30
Total hours		290

Occupation / Work Function	Dam Operator	
Qualification Title	Certificate II in Water Operations	
Qualification Code	NWP20107	
Description	This qualification has been designed for a water industry worker who inspects and maintains basic dams and water storages.	
Unit Code	Unit Title	Hours
Core		
NWP201B	Follow defined OHS procedures and regulatory requirements	30
NWP202B	Apply environmental and licensing procedures	30
NWP203B	Plan and organise personal work activities	20
Electives		
NWP207A	Work effectively in the water industry	20
NWP211B	Use computerised systems	20
NWP226B	Prepare and restore work site	30
NWP229B	Repair minor structures	20
NWP240B	Inspect and report catchment and surrounding areas	20
NWP241B	Inspect and maintain basic dams and water storages	30
NWP244B	Maintain and repair bulkwater assets	30
NWP246B	Inspect and maintain public facilities	20
Total hours		270

Occupation / Work Function	Water Treatment Plant Operator	
Qualification Title	Certificate II in Water Operations	
Qualification Code	NWP20107	
Description	This qualification has been designed for a water industry worker who operates in maintenance in a water treatment plant.	
Unit Code	Unit Title	Hours
Core		
NWP201B	Follow defined OHS procedures and regulatory requirements	30
NWP202B	Apply environmental and licensing procedures	30
NWP203B	Plan and organise personal work activities	20
Electives		
NWP210B	Perform basic water quality tests	20
NWP211B	Use computerised systems	20
NWP218B	Perform and record sampling	20
NWP219A	Work safely in confined spaces	20
NWP260A	Monitor and report water treatment processes	30
NWP261A	Operate and maintain water treatment plant and equipment	30
NWP268B	Monitor, operate and report chlorine disinfection systems	30
NWP279	Demonstrate knowledge of the risk management principles of the Australian drinking water guidelines	10
Total hours		260

Occupation / Work Function	Wastewater Treatment Plant Operator/Lagoons Operator	
Qualification Title	Certificate II in Water Operations	
Qualification Code	NWP20107	
Description	This qualification has been designed for a water industry worker who operates a wastewater treatment/water reclamation plant.	
Unit Code	Unit Title	Hours
Core		
NWP201B	Follow defined OHS procedures and regulatory requirements	30
NWP202B	Apply environmental and licensing procedures	30
NWP203B	Plan and organise personal work activities	20
Electives		
NWP208A	Perform basic wastewater tests	20
NWP211B	Use computerised systems	20
NWP218B	Perform and record sampling	20
NWP219A	Work safely in confined spaces	20
NWP262A	Monitor and report wastewater treatment processes	30
NWP263A	Operate and maintain wastewater treatment plant and equipment	30
NWP264B	Monitor, operate and report wastewater pre-treatment processes	20
NWP278A	Perform blue green algae sampling	10
Total hours		250

Occupation / Work Function	Irrigation Operations Officer	
Qualification Title	Certificate III in Water Operations	
Qualification Code	NWP30107	
Description	This qualification has been designed for a person who specialises in irrigation operations for rural and domestic water delivery.	
Unit Code	Unit Title	Hours
Core		
NWP301B	Implement, monitor and coordinate environmental procedures	40
BSBOHS303B	Contribute to OHS hazard identification and risk assessment	30
BSBWOR301B	Organise personal work priorities and development	30
Electives		
NWP300B	Provide and promote customer service	20
NWP302A	Install meters for non-potable, non-urban water supplies	30
NWP303A	Monitor and control maintenance of water and wastewater system assets	50
NWP304A	Maintain meter for non-potable, non-urban water supplies	20
NWP305B	Monitor and conduct minor maintenance on complex flow control and metering devices	40
NWP316B	Monitor and schedule water deliveries	40
NWP333B	Monitor and control rural water distribution operations	40
NWP370	Perform water industry calculations	30
Total hours		370

Occupation / Work Function	Diversions Officer	
Qualification Title	Certificate III in Water Operations	
Qualification Code	NWP30107	
Description	This qualification has been designed for water industry worker who specialises in inspection and operation of groundwater and surface water systems and measurement and report of river flows.	
Unit Code	Unit Title	Hours
Core		
NWP301B	Implement, monitor and coordinate environmental procedures	40
BSBOHS303B	Contribute to OHS hazard identification and risk assessment	30
BSBWOR301B	Organise personal work priorities and development	30
Electives		
NWP300B	Provide and promote customer service	20
NWP302A	Install meters for non-potable, non-urban water supplies	30
NWP304A	Maintain meter for non-potable, non-urban water supplies	20
NWP315B	Investigate and report breaches of water industry legislation	40
NWP322B	Inspect and operate surface water systems	40
NWP323B	Monitor and coordinate catchment operations	30
NWP333B	Monitor and control rural water distribution operations	40
NWP370	Perform water industry calculations	30
Total hours		350

Occupation / Work Function	Dam Operator	
Qualification Title	Certificate III in Water Operations	
Qualification Code	NWP30107	
Description	This qualification has been designed for a water industry worker who specialises in dam safety inspection and dam operation.	
Unit Code	Unit Title	Hours
Core		
NWP301B	Implement, monitor and coordinate environmental procedures	40
BSBOHS303B	Contribute to OHS hazard identification and risk assessment	30
BSBWOR301B	Organise personal work priorities and development	30
Electives		
NWP300B	Provide and promote customer service	20
NWP318A	Monitor and operate gated spillways	50
NWP319A	Monitor and control dam operations	50
NWP320B	Monitor and implement dam maintenance	30
NWP324B	Inspect and report river regulation operations	30
NWP327A	Inspect and report on concrete dam safety	30
NWP328A	Inspect and report on embankment dam safety	30
NWP370	Perform water industry calculations	30
Total hours		370

Occupation / Work Function	Urban Maintenance and Operations (Networks) Operator	
Qualification Title	Certificate III in Water Operations	
Qualification Code	NWP30107	
Description	This qualification has been designed for a water industry worker who specialises in water distribution systems operation and maintenance.	
Unit Code	Unit Title	Hours
Core		
NWP301B	Implement, monitor and coordinate environmental procedures	40
BSBOHS303B	Contribute to OHS hazard identification and risk assessment	30
BSBWOR301B	Organise personal work priorities and development	30
Electives		
NWP300B	Provide and promote customer service	20
NWP303A	Monitor and control maintenance of water and wastewater system assets	50
NWP310B	Monitor and operate water distribution systems	40
NWP311B	Monitor and operate wastewater collection and transfer systems	40
NWP317B	Control water quality in distribution systems	30
NWP330B	Establish positions of underground utilities using locating devices	30
NWP338B	Perform infiltration and odour investigations	40
NWP339B	Perform leak detection	40
Total hours		390

Occupation / Work Function	Water Treatment Plant Operator	
Qualification Title	Certificate III in Water Operations	
Qualification Code	NWP30107	
Description	This qualification has been designed for a person who specialises in operation of a water treatment plant.	
Unit Code	Unit Title	Hours
Core		
NWP301B	Implement, monitor and coordinate environmental procedures	40
BSBOHS303B	Contribute to OHS hazard identification and risk assessment	30
BSBWOR301B	Organise personal work priorities and development	30
Electives		
NWP268B	Monitor, operate and report chlorine disinfection systems	30
NWP347B	Monitor, operate and control coagulation and flocculation processes	50
NWP348B	Monitor, operate and control sedimentation and clarification processes	40
NWP354B	Monitor, operate and control granular media filtration processes	50
NWP363B	Monitor performance and control maintenance of treatment plant assets	40
NWP364B	Perform laboratory testing	40
NWP366A	Monitor, operate and control chloramination disinfection processes	40
NWP370	Perform water industry calculations	30
Total hours		420

Occupation / Work Function	Wastewater Treatment Plant Operator	
Qualification Title	Certificate III in Water Operations	
Qualification Code	NWP30107	
Description	This qualification has been designed for a person who specialises in operating a wastewater treatment/water reclamation plant.	
Unit Code	Unit Title	Hours
Core		
NWP301B	Implement, monitor and coordinate environmental procedures	40
BSBOHS303B	Contribute to OHS hazard identification and risk assessment	30
BSBWOR301B	Organise personal work priorities and development	30
Electives		
NWP346B	Monitor, operate and control wastewater treatment processes	70
NWP351B	Monitor, operate and control activated sludge processes	50
NWP359B	Monitor, operate and control nutrient removal processes	40
NWP360B	Monitor, operate and control dewatering processes	30
NWP362B	Monitor, operate and control reclaimed water irrigation	40
NWP363B	Monitor performance and control maintenance of treatment plant assets	40
NWP364B	Perform laboratory testing	40
NWP370	Perform water industry calculations	30
Total hours		440

Occupation / Work Function	Water Treatment Plant Operator	
Qualification Title	Certificate IV in Water Operations	
Qualification Code	NWP40107	
Description	This qualification has been designed for a technical specialist who optimises the operation of water treatment processes.	
Unit Code	Unit Title	Hours
Core		
LGACOM405B	Implement and monitor the organisation's OHS policies, procedures and programs within the work group or section	20
NWP401B	Coordinate and monitor the application of environmental plans and procedures	80
Electives		
NWP404A	Apply principles of chemistry to water systems and processes	50
NWP406A	Investigate and plan the optimisation of granular media filtration processes	60
NWP407A	Investigate and plan the optimisation of dissolved air flotation processes	60
NWP408A	Investigate and plan the optimisation of sedimentation and clarification processes	60
NWP409A	Investigate and plan to optimise the operation of chemical addition processes	60
NWP411A	Select treatment requirements for waterborne microorganisms	50
PSPPROC414A	Manage contracts	40
Total hours		480

Occupation / Work Function	Wastewater Treatment Plant Operator	
Qualification Title	Certificate IV in Water Operations	
Qualification Code	NWP40107	
Description	This qualification has been designed for a technical specialist who optimises the operation of wastewater treatment processes.	
Unit Code	Unit Title	Hours
Core		
LGACOM405B	Implement and monitor the organisation's OHS policies, procedures and programs within the work group or section	20
NWP401B	Coordinate and monitor the application of environmental plans and procedures	80
Electives		
NWP404A	Apply principles of chemistry to water systems and processes	50
NWP409A	Investigate and plan to optimise the operation of chemical addition processes	60
NWP411A	Select treatment requirements for waterborne microorganisms	50
NWP412A	Investigate and plan the optimisation of activated sludge processes	60
NWP413A	Investigate and plan the optimisation of anaerobic treatment processes	60
NWP414A	Select strategies to control microbial impacts on wastewater treatment processes	40
PSPPROC414A	Manage contracts	40
Total hours		460

Occupation / Work Function	Maintenance and Operations Supervisor (Water Distribution and Wastewater Collection Plants)	
Qualification Title	Certificate IV in Water Operations	
Qualification Code	NWP40107	
Description	This qualification has been designed for supervisors overseeing the maintenance and operation of water distribution and wastewater collection systems.	
Unit Code	Unit Title	Hours
Core		
LGACOM405B	Implement and monitor the organisation's OHS policies, procedures and programs within the work group or section	20
NWP401B	Coordinate and monitor the application of environmental plans and procedures	80
Electives		
NWP410C	Coordinate and monitor asset construction and maintenance	70
NWP415B	Coordinate and monitor surface water systems	60
NWP416B	Coordinate and monitor water storage catchment activities	60
NWP427B	Coordinate and monitor the operation of drainage systems	60
NWP428B	Coordinate and monitor the operation of wastewater collection systems	60
NWP440A	Supervise conduit inspection and reporting	40
PSPPROC414A	Manage contracts	40
Total hours		490

Occupation / Work Function	Water Industry Operations Supervisor	
Qualification Title	Diploma of Water Operations	
Qualification Code	NWP50107	
Description	This qualification has been designed for a supervisor in water industry operations who seeks specialised technical skills in catchment management.	
Unit Code	Unit Title	Hours
Core		
PSPSOHS501A	Participate in the coordination and maintenance of a systematic approach to managing OHS	50
NWP505B	Implement and manage environmental management policies, plans, procedures and programs	100
Electives		
NWP520A	Contribute to hydrometric planning and water resource management	100
NWP532B	Implement and manage potable water system management plan	80
NWP545B	Implement and manage water treatment processes monitoring program	80
NWP547B	Implement and manage wastewater treatment processes monitoring program	80
NWP548B	Develop and review wastewater treatment management plan	120
Total hours		610

Occupation / Work Function	Water Industry Operations Team Leader	
Qualification Title	Diploma of Water Operations	
Qualification Code	NWP50107	
Description	This qualification has been designed for a project manager in water industry operations who seeks specialised technical skills in catchment management.	
Unit Code	Unit Title	Hours
Core		
PSPSOHS501A	Participate in the coordination and maintenance of a systematic approach to managing OHS	50
NWP505B	Implement and manage environmental management policies, plans, procedures and programs	100
Electives		
NWP508A	Apply principles of hydraulics to pipe and channel flow	160
NWP514B	Implement and manage groundwater management plan	100
NWP515B	Develop and review groundwater management plan	100
NWP516B	Implement and manage surface water management plan	120
LGAWORK502A	Prepare detailed works project documentation	180
Total hours		810

Occupation / Work Function	Engineering Assistant – Design	
Qualification Title	Advanced Diploma of Water Engineering Design	
Qualification Code	NWP60112	
Description	This qualification has been designed for paraprofessionals and experienced existing workers and offers a pathway to upskill in the design and management of water supply activities and projects while incorporating new sustainability principles and skills.	
Unit Code	Unit Title	Hours
Core		
NWP601	Design a water reticulation scheme	80
NWP602	Design gravity sewerage systems	60
NWP604	Manage the construction of pipeline systems	60
NWP605	Plan sewerage reticulation systems	80
NWP606	Plan water reticulation systems	80
Electives		
NWP603	Design pressure sewerage systems	60
NWP607	Manage drinking water quality information	80
NWP608	Design sewerage pumping station systems	60
NWP610	Apply statistical methods for quality control and reliability	60
Total hours		620

Occupation / Work Function	Engineering Assistant – Operations	
Qualification Title	Advanced Diploma of Water Engineering Design	
Qualification Code	NWP60112	
Description	This qualification has been designed for paraprofessionals and experienced existing workers and offers a pathway to upskill in the operational management of water supply activities and projects while incorporating new sustainability principles and skills.	
Unit Code	Unit Title	Hours
Core		
NWP601	Design a water reticulation scheme	80
NWP602	Design gravity sewerage systems	60
NWP604	Manage the construction of pipeline systems	60
NWP605	Plan sewerage reticulation systems	80
NWP606	Plan water reticulation systems	80
Electives		
NWP607	Manage drinking water quality information	80
NWP609	Manage assets in a water utility	60
NWP610	Apply statistical methods for quality control and reliability	60
MSACMT671A	Develop and manage sustainable environmental practices	60
Total hours		620

Occupation / Work Function	Water Infrastructure Project Leader	
Qualification Title	Advanced Diploma of Water Engineering Design	
Qualification Code	NWP60112	
Description	This qualification has been designed for paraprofessionals and experienced existing workers and offers a pathway to upskill in the planning, implementation and management of water supply projects while incorporating new sustainability principles and skills.	
Unit Code	Unit Title	Hours
Core		
NWP601	Design a water reticulation scheme	80
NWP602	Design gravity sewerage systems	60
NWP604	Manage the construction of pipeline systems	60
NWP605	Plan sewerage reticulation systems	80
NWP606	Plan water reticulation systems	80
Electives		
NWP508A	Apply principles of hydraulics to pipe and channel flow	160
NWP525B	Implement and manage asset construction and maintenance	100
NWP705A	Provide leadership in hydrometric network planning and water resource management	120
NWP706A	Review and evaluate water and wastewater sustainability objectives	120
Total hours		860

Occupation / Work Function	Water Industry Graduate	
Qualification Title	Vocational Graduate Certificate in Water Industry Leadership	
Qualification Code	NWP70107	
Description	This qualification has been designed to provide graduate entrants to the water industry with industry-specific context to add to their existing academic education that may have been gained in engineering, applied science, chemistry or other field.	
Unit Code	Unit Title	Hours
Core		
NWP701A	Contribute to the development of a complex water organisation	100
NWP702A	Apply water industry legislation, codes and standards	100
NWP703A	Lead water planning processes	120
NWP706A	Review and evaluate water and wastewater sustainability objectives	120
Total hours		440

CONTACTS AND LINKS

Industry Skills Council (ISC)		
Government Skills Australia	This ISC is responsible for developing this NWP07 Water Training Package and can be contacted for further information. You can also source copies of the Training Package and support material.	Address: Level 11, 147 Pirie Street ADELAIDE SA 5000 Phone: (08) 8100 7400 Fax: (08) 8232 7444 Email: info@governmentskills.com.au Website: www.governmentskills.com.au
National Register for VET in Australia		
Training.gov.au (TGA)	TGA is the Australian governments' official National Register of information on Training Packages, qualifications, courses, units of competency and RTOs.	Website: training.gov.au
Australian Government		
The Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE)	DIISRTE provides a range of services and resources to assist in delivery of Training Packages. Search the DIISRTE website for links to a range of relevant resources and publications.	Website: www.innovation.gov.au You may also find Department of Education, Employment and Workplace Relations website of use Website: www.deewr.gov.au
State Government		
Department of Education and Early Childhood Development (DEECD) Higher Education and Skills Group (HESG)	Higher Education and Skills Group is responsible for funding and the implementation of Vocational Education and Training (VET) in Victoria, including Apprenticeships and Traineeships.	General information Website: www.skills.vic.gov.au Approved Training Schemes: Website: www.skills.vic.gov.au/corporate/publications/rochures-and-fact-sheets/apprenticeships-and-traineeships-in-victoria-industry-guides
Curriculum Maintenance Manager (CMM)		
CMM Building Industries – Building and Construction, Civil Construction, Furnishing and Water	The CMM service is provided by Executive Officers located within Victorian TAFE Institutes on behalf of Higher Education and Skills Group.	Mr Tom Vassallo CMM Building Industries Address: Holmesglen PO Box 42 HOLMESGLEN VIC 3148 Phone: (03) 9564 1987 Email: tom.vassallo@holmesglen.edu.au Website: www.holmesglen.edu.au

State VET Regulatory Authority		
Victorian Registration and Qualifications Authority (VRQA)	The VRQA is a statutory authority responsible for the registration of education and training providers in Victoria to ensure the delivery of quality education and training.	Phone: (03) 9637 2806 Website: www.vrqa.vic.gov.au
National VET Regulatory Authority		
Australian Skills Quality Authority (ASQA)	ASQA is the national regulator for Australia's VET sector vocational education and training sector. ASQA regulates courses and training providers to ensure nationally approved quality standards are met.	Website: www.asqa.gov.au Info line: 1300 701 801
Industry Regulatory Body		
National Health and Medical Research Council (NHMRC)		Address: Level 1, 16 Marcus Clarke Street CANBERRA ACT 2601 Phone: 1300 064 672 Fax: (02) 6217 9100 Email: nhmrc@nhmrc.gov.au Website: www.nhmrc.gov.au
WorkSafe		
WorkSafe Victoria	WorkSafe needs to provide written verification before High Risk Work units can be added to an RTOs scope of registration.	Website: www.worksafe.vic.gov.au Info line: 1800 136 089
Other contacts		
Resource Generator		Website: www.resourcegenerator.gov.au
Water Services Association of Australia (WSAA)		Website: www.wsaa.asn.au
Creative Commons		Website: www.creativecommons.org.au
Australian Water Association (AWA)		Website: www.awa.asn.au

GLOSSARY

Code	Nationally endorsed Training Package qualification code.
Title	Nationally endorsed Training Package qualification title.
Unit Code	Nationally endorsed Training Package unit code.
Unit Title	Nationally endorsed Training Package unit title.
Nominal Hours	The anticipated hours of supervised learning or training deemed necessary to conduct training and assessment activities associated with the program of study. These hours are determined by the Victorian State Training Authority. Nominal hours may vary for a qualification depending on the units of competency selected.
Scope of Registration	Scope of registration specifies the AQF qualifications and/or units of competency the training organisation is registered to issue and the industry training and/or assessment services it is registered to provide.