



Australian Government

NWPTRT004 Develop and manage a water treatment plan

Release: 1

NWPTRT004 Develop and manage a water treatment plan

Modification History

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

Application

This unit involves the skills and knowledge required to develop and manage a water treatment plan.

It includes monitoring, operating and maintaining water treatment and reviewing and reporting on the water treatment plan. It also includes evaluating maintenance budgets, assessing environmental factors, managing resources, investigating breaches of usage provisions and analysing testing results.

This unit applies to leaders with responsibility for the management of the water treatment process. Those undertaking this unit would work autonomously, leading staff, while performing sophisticated tasks in a range of familiar contexts.

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

Pre-requisite Unit

Not applicable.

Competency Field

Treatment.

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan for water treatment

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Identify, interpret and synthesise historic water collection system information relevant to the

management process

- 1.2 Identify and analyse water quality and quantity requirements according to relevant legislation, industry regulations, industry standards and workplace procedures
 - 1.3 Identify and assess process capability and performance design according to specifications
 - 1.4 Identify hazards, assess risks and implement control measures according to workplace procedures
 - 1.5 Identify and interpret issues impacting the catchment and treatment of water
 - 1.6 Identify and interpret stakeholder requirements impacting on the treatment processes
 - 1.7 Identify and assess environmental factors impacting the treatment of water
 - 1.8 Confirm performance measures for the water treatment plan
 - 1.9 Identify and define available resources against wastewater specifications
- 2 Develop water treatment plan**
 - 2.1 Apply system specification requirements for water treatment planning according to regulatory requirements and workplace procedures
 - 2.2 Assess public health, environmental and community factors impacting the water treatment system
 - 2.3 Analyse performance data and incorporate into plan development
 - 2.4 Design and implement monitoring and testing programs according to the objectives of the water treatment plan
 - 2.5 Develop and document a plan for managing water treatment
- 3 Implement water treatment plan**
 - 3.1 Provide advice and guidance to plan users and stakeholders according to relevant legislation, regulations, industry standards and workplace procedures
 - 3.2 Manage resources to achieve objectives of the water

- treatment plan
- 3.3** Operate the system according to the water treatment plan, legislation, regulations and industry standards
- 4 Monitor and evaluate water treatment**
- 4.1** Monitor treatment process resource usage according to the water treatment plan
- 4.2** Implement emergency action plans according to the water treatment plan
- 4.3** Identify, report and recommend opportunities for improving process performance according to the water treatment plan
- 4.4** Analyse and interpret monitoring and testing results and report according to regulatory regulations, industry standards and workplace procedures
- 4.5** Investigate breaches of usage provisions or discharge provisions and report results and recommendations according to regulatory requirements and workplace procedures
- 4.6** Identify and evaluate changes to the water treatment plan as a result of changes in legislation, regulations, industry standards and stakeholder requirements
- 4.7** Modify and implement the water treatment plan, incorporating accepted recommendations
- 4.8** Evaluate maintenance budgets, activity programs and output target measures and identify, investigate and report deviations from target
- 4.9** Identify and record links between operational problems and maintenance activities
- 5 Review and refine plan**
- 5.1** Review objectives of water treatment and implementation plans
- 5.2** Make recommendations for changes to plan objectives and operational and maintenance procedures
- 5.3** Implement outcomes from audits and internal reviews

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of

competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Unit Mapping Information

This is a new unit. 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>

Assessment Requirements for NWPTRT004 Develop and manage a water treatment plan

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and includes:

- advising and guiding plan users in compliance with regulatory requirements
- analysing and interpreting test results
- assessing public health impacts
- assessing environmental impacts
- conducting investigations
- coordinating measuring and testing activities
- identifying and reporting on deviations to the water treatment plan
- identifying hazards, assessing risks and implementing control measures
- identifying, interpreting and synthesising information for developing and managing a water treatment plan including:
 - historical data
 - industry standards
 - maintenance activities and costs
 - plan objectives
 - relevant legislation
 - results of treatment testing and monitoring
 - stakeholder requirements
 - water quality and quantity
- monitoring and evaluating the outcomes of treatment processes
- planning and implementing testing processes and programs
- preparing reports and recommendations for future action
- using complex mathematical and scientific techniques to interpret test results

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria and includes knowledge of:

- appropriate measuring and testing procedures

- budgeting techniques
- investigation procedures
- relevant legislation, regulations, industry standards and workplace procedures
- relevant workplace documentation
- risk management principles
- stakeholder requirements
- water collection historical information

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations. Where this is not appropriate, assessment must occur in suitable simulated workplace operational situations reflecting actual workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- relevant and appropriate materials, tools, facilities, equipment and personal protective equipment currently used in industry
- applicable relevant documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

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