



Australian Government

NWPTRT062 Operate and control reclaimed water irrigation

Release: 1

NWPTRT062 Operate and control reclaimed water irrigation

Modification History

Release	Comments
1	This unit was released in NWP National Water Training Package release 1.0 and meets the Standards for Training Packages. This unit supersedes and is equivalent to NWP362B Monitor, operate and control reclaimed water irrigation. • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Unit title changed to better reflect unit outcomes

Application

This unit describes the skills required to operate and control reclaimed water irrigation and the use of reclaimed water for irrigation practices.

This unit applies to those working as staff members with a specific responsibility for analysing the critical aspects of reclaimed water reuse management relating to a project or site and implementing reclaimed water reuse irrigation.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work under indirect supervision, performing routine tasks in a familiar context, ensuring minimum damage to the environment.

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

Competency Field

Treatment

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the	Performance criteria describe the performance needed to demonstrate

essential outcomes	achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Assess sites for reclaimed water irrigation	1.1 Identify soil/water interactions and soil properties important for plant growth. 1.2 Identify soil sampling sites, collect samples and conduct soil testing. 1.3 Classify soils using field texture, pH and structure analysis. 1.4 Monitor and determine the water holding capacity of the soil.
2. Assess quality of reclaimed water for irrigation	2.1 Sample and test reclaimed water and interpret quality parameters. 2.2 Determine crops suitable for the quality of reclaimed water and site conditions.
3. Implement reclaimed water irrigation	3.1 Identify basic features of irrigation systems. 3.2 Operate and maintain irrigation equipment. 3.3 Identify and apply irrigation scheduling options for reclaimed water. 3.4 Produce water budgets using crop factors and climate data. 3.5 Apply irrigation water and collect and monitor tail water or runoff.
4. Respond to water or soil quality issues	4.1 Develop irrigation management options to respond to water quality issues. 4.2 Identify and apply requirements and options for soil ameliorants. 4.3 Monitor infiltration and drainage.
5. Compile reclaimed water irrigation records	5.1 Compile reports from system data. 5.2 Report observations outside defined parameters for further action.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Unit Mapping Information

This unit supersedes and is equivalent to NWP362B Monitor, operate and control reclaimed water irrigation.

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>

Assessment Requirements for NWPTRT062 Operate and control reclaimed water irrigation

Modification History

Release	Comments
1	These Assessment Requirements were released in NWP National Water Training Package release 1.0 and meet the Standards for Training Packages. • 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. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- monitoring and managing soil
- solving operational problems
- accessing, interpreting and applying relevant legislation
- apply environmental policies, plans and procedures
- assessing environmental risks at the work site
- identifying soil groups
- using safety and personal protective equipment
- sampling and testing soil and water
- monitoring, operating and controlling reclaimed water irrigation
- analysing critical aspects of reclaimed water reuse management relating to the project or site
- implementing reclaimed water reuse irrigation
- identifying environment, health and safety risks and impact on soil, stock and operators
- applying environmental procedures
- participating in and contributing to reviews of reclaimed water reuse procedures

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.

- key principles of irrigation practices, including irrigation scheduling

- key characteristics of reclaimed water
- relevant legislative requirements
- standard operating procedures
- primary agencies involved in drinking water quality management
- water quality performance indicators
- an overview of the water supply system
- water hazardous agents and preventative strategies
- community and agency roles and responsibilities in monitoring water quality
- best management practices for the use of reclaimed water for irrigation purposes
- reclaimed water usage licensing procedures and requirements
- environmental, landscape and ground structure of work area
- equipment operation, capacity and limitations
- effects of weather and conditions on operation of site or plant
- interpretation and use of material safety data sheets
-

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.

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>