



**Australian Government**

# **RIICRC301E Maintain drainage systems**

**Release: 1**

# RIICRC301E Maintain drainage systems

## Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 6.0.

## Application

This unit describes the skills and knowledge required to maintain drainage systems in civil construction, including maintaining drainage components and open drains, excavating and repairing drainage systems and inspecting and repairing culverts.

It applies to those working in operational roles. They generally work under minimal supervision to undertake a broad range of tasks in varied work contexts, using some discretion and judgement in selecting equipment, services or contingency measures.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories and industry sectors. Users must check requirements with relevant body before applying the unit.

## Unit Sector

Civil construction

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to maintain drainage systems	1.1 Obtain, interpret, clarify and confirm work requirements 1.2 Access, interpret and apply documentation required to maintain drainage systems and confirm work activity is compliant 1.3 Identify and address potential risks, hazards and environmental issues, and implement control measures 1.4 Select and wear personal protective equipment according to site requirements 1.5 Obtain and interpret drainage maintenance schedule and records of maintenance history 1.6 Determine temporary stormwater diversion requirements according

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
	to existing drainage outlets, site requirements and planned construction schedule
2. Maintain drainage components	2.1 Inspect and maintain drainage components and rectify or report faults as required 2.2 Repair drainage components according to initial design specifications and/or engineer's redesign 2.3 Flush out drainage system and confirm clear flows of fluid
3. Excavate and repair drainage systems	3.1 Determine location of repairs according to work order and survey site 3.2 Carry out excavation according to job requirements 3.3 Prepare pipes and accessories according to design method of repair 3.4 Replace pipe sections and join and align to line and specified fall according to job requirements 3.5 Install packing and confirm alignment of pipeline 3.6 Make joints to pipe section junctions according to job requirements 3.7 Backfill section according to job requirements 3.8 Inspect and test repaired drainage system and confirm effectiveness of repairs against job requirements
4. Maintain open drains	4.1 Maintain open drains to line and fall specifications according to job requirements 4.2 Finish surfaces adjoining open drains and confirm ease of run off 4.3 Undertake erosion control methods according to site requirements
5. Inspect, clear and repair culverts	5.1 Identify faults in culverts and determine appropriate repair requirements and specifications 5.2 Repair or replace sections and joint according to levels and design specifications 5.3 Repair or maintain inlets and outlets according to culvert design and specifications 5.4 Compact backfill
6. Conduct clean-up activities	6.1 Clear work area and dispose of or recycle materials according to site requirements 6.2 Seal and store or pack unused materials according to site requirements 6.3 Clean, check, maintain and store plant, tools and equipment according to manufacturer specifications and site requirements

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.*

SKILL	DESCRIPTION
Numeracy	<ul style="list-style-type: none"><li>Calculates basic measurements including mass and dimensions</li></ul>
Self-management	<ul style="list-style-type: none"><li>Monitors and minimises own exposure to worksite risks and hazards during work activities</li></ul>

## Unit Mapping Information

Supersedes and is equivalent to RIICRC301D Maintain drainage systems.

## Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

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