



Australian Government

RIICWM502E Implement civil works maintenance programs

Release: 1

RIICWM502E Implement civil works maintenance programs

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 implement civil works maintenance programs in civil construction, including preparing the detailed civil works maintenance plan, acquiring resources, instructing team members, monitoring performance and reviewing task outcomes.

It applies to those working in management or technical specialist roles. They generally apply a broad range technical and managerial skills and are responsible for the delivery of outputs that meet site requirements.

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 implement a civil works maintenance program	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required to implement civil works maintenance programs and confirm work activity is compliant 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Confirm the current condition of assets scheduled for maintenance and recommend reclassification of serviceability where required 1.5 Identify resources required to implement the civil works maintenance

	plan
2. Prepare detailed civil works maintenance program	2.1 Identify viable available options for implementation of the specific civil works maintenance tasks 2.2 Select preferred option and draft implementation plan in consultation with relevant team members, confirming best use of available resources 2.3 Identify contingency requirements to be allowed for within implementation of the plan 2.4 Monitor and coordinate progress of other team members involved in the planning process 2.5 Identify and schedule the resources required for the execution of the implementation plan 2.6 Identify key performance indicators to be used in the monitoring and assessment of the project performance 2.7 Identify and clarify maintenance works milestones required 2.8 Prepare cost estimate of execution of the implementation plan in consultation with relevant team members 2.9 Gain approval of the implementation plan 2.10 Document the implementation plan according to site requirements
3. Initiate civil works maintenance implementation plans	3.1 Acquire and make available required resources 3.2 Issue instructions to team members and others involved
4. Monitor, adjust and report on the implementation of civil works maintenance programs	4.1 Monitor civil works maintenance implementation plan performance and confirm it achieves required outcomes 4.2 Provide ongoing clarification and advice to those applying the plan 4.3 Complete and submit reports according to site requirements 4.4 Participate in performance review of the implementation plan 4.5 Recommend improvements to tasks

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
Oral communication	Presents workplace procedures and technical instructions to a group using sector-specific vocabulary

Unit Mapping Information

Supersedes and is equivalent to RIICWM502D Implement civil works maintenance program.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for RIICWM502E Implement civil works maintenance programs

Modification History

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- implement a civil works maintenance program on at least two occasions, including:
 - providing instruction to others using at least one of the following methodologies:
 - project plans
 - briefings
 - handovers
 - work orders
 - toolbox meetings
 - site meetings
 - scheduling inspection programs
 - classifying levels of the serviceability of assets
 - prioritising maintenance works
 - providing team leadership and coordination
 - choosing required maintenance operational techniques
 - developing and applying works maintenance programs
 - calculating maintenance works resource quantities and project costs
 - completing maintenance works cost records
 - providing clarification and advice.

During the above, the candidate must:

- locate and apply required legislation, documentation, policies and procedures
- implement the requirements, procedures and techniques for the implementation of civil works maintenance programs, including, accessing, interpreting and applying:
 - legislative, organisation and site requirements and procedures
 - project plans, drawings and specifications

- project maintenance works briefs
- project engineering survey information
- project hydrological, meteorological and geotechnical data
- inspection data
- innovative solutions and new technology
- consultative processes
- project scheduling and resource management technology
- negotiation techniques
- feedback techniques
- work with others to implement the civil works maintenance programs that meets required outcomes, including:
 - providing instruction and supervision using communication techniques and equipment
 - preparing for and conducting briefings, toolbox and site meetings
 - completing written records and reporting systems
 - consulting with stakeholders.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- legislation required to implement civil works maintenance programs
- policies, procedures and documentation required to implement civil works maintenance programs, including those relating to:
 - risk assessment and management
 - statutory compliance
 - work health and safety
 - emergency response
 - environmental management
 - quality management
 - specifications
 - communication techniques and equipment
 - community relations
 - materials quality and delivery requirements
 - scheduling and interpreting inspection program
 - documenting, reporting, approving and filing records for maintenance programs
- principles and techniques required to implement civil works maintenance programs, including those related to:
 - civil works maintenance, including:
 - surface drainage
 - water storage and tailings dams
 - rehabilitation

- pavements
- underground services
- civil structures
- tunnels
- canals
- implementation of maintenance tasks
- classifying asset condition
- prioritising maintenance works
- industry and organisational maintenance works
- reviewing performance
- team leadership and negotiation techniques
- interpreting data, including:
 - project engineering survey information
 - project hydrological data
 - meteorological data
 - project geotechnical data
 - inspection data
- principles of road user behaviour
- types, characteristics, technical capabilities and limitations of materials, plant and equipment required for implementing civil works maintenance programs.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
 - personal protective equipment
 - equipment required to implement civil works maintenance programs
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances.

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

Assessor requirements

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory regulatory standards as set out in the Standards for Registered Training Organisations 2015/Australian Quality Training Framework mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment
- having knowledge of and/or experience using the latest techniques and processes
- possessing the required level of RII training product knowledge
- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence outlined in this unit of competency, and
- the minimum years of current** work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.

It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 year
	2	2 years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 years
Other sectors	Where this unit is being assessed outside of the resources and infrastructure sectors assessor and/or industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no industry standard is specified should comply with any relevant regulation.	

*Guidance on simulated environments has been stipulated in the Companion Volume Implementation Guide located on VETNet.

**Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the unit; or, for external assessors this can be demonstrated through exposure to industry by conducting a minimum number of site assessments as determined by the relevant industry sector, across various locations.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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