



Australian Government

RIICWM602E Establish civil works maintenance programs

Release: 1

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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 establish civil works maintenance programs in civil construction. It includes planning for, implementing, monitoring and reporting on civil works maintenance programs.

It applies to those working in management or technical specialist roles. They generally perform complex, non-routine tasks involving strategic and planning activities and are responsible for establishing and maintaining operational systems and plans.

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. Prepare to establish civil works maintenance program	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required to establish civil works maintenance programs and confirm work activity is compliant 1.3 Schedule, initiate and confirm inspection of assets
2. Plan civil works maintenance program	2.1 Classify the condition of assets in terms of serviceability 2.2 Prioritise maintenance works 2.3 Identify viable options for maintenance program according to job requirements 2.4 Select preferred options and draft maintenance program in consultation with relevant team members and job requirements

ELEMENT	PERFORMANCE CRITERIA
	2.5 Identify and allow for contingency requirements 2.6 Monitor and coordinate progress and involvement of other team members 2.7 Identify and schedule the resources required for execution of the maintenance program 2.8 Identify key performance indicators to be used 2.9 Gain client agreement on maintenance milestones 2.10 Prepare cost estimate of program in consultation with relevant team members 2.11 Gain approval 2.12 Document civil works maintenance program according to site procedures
3. Initiate civil works maintenance programs	3.1 Acquire and make available required resources according to job requirements 3.2 Issue instructions to team members and others involved
4. Monitor, adjust and report on civil works maintenance programs	4.1 Monitor civil works maintenance program performance according to job requirements 4.2 Initiate adjustments to civil works maintenance program according to job requirements 4.3 Provide ongoing clarification and advice to those applying the program 4.4 Complete and submit reports according to site requirements 4.5 Conduct performance review of the works maintenance program 4.6 Recommend changes to improve civil works maintenance programming processes

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	Applies basic mathematics to calculate resourcing requirements and cost estimates
Oral communication	Presents workplace procedures and technical instructions to a group using sector-specific vocabulary

Unit Mapping Information

Supersedes and is equivalent to RIICWM602D Establish civil works maintenance programs.

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 RIICWM602E Establish 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:

- establish civil works maintenance programs on at least two occasions, including:
 - identifying information and scope of work to meet required outcomes
 - identifying viable program options and selecting programs that best meet required outcomes, including:
 - classifying levels of serviceability of assets
 - prioritising maintenance works
 - calculating maintenance resource quantities and program costs
 - maintaining maintenance program cost records
 - identifying contingency requirements
 - gaining client agreement on milestones
 - monitoring and coordinating progress of other team members involved
 - identifying and scheduling required resources
 - identifying and monitoring key performance indicators
 - gaining approval
 - documenting construction plan.

During the above, the candidate must:

- locate and apply required legislation, documentation, policies and procedures
- implement the requirements, procedures and techniques for the establishment of civil works maintenance programs, including:
 - interpreting asset plans, drawings, program specifications, briefs and contracts
 - interpreting engineering survey information
 - interpret hydrological, meteorological and geotechnical data
 - scheduling inspections
 - interpreting inspection data

- providing team leadership and coordination
- applying innovative solutions and new technology
- selecting and applying required maintenance operational techniques
- applying project scheduling and resource management technology
- work with others to establish civil works maintenance programs, including:
 - providing clarification and advice
 - completing reporting requirements and procedures
 - communicating with others to receive and clarify work instructions
 - communicating with others to coordinate work activities.

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 establish civil works maintenance programs
- key policies, procedures and documentation required to establish civil works maintenance programs, including those relating to:
 - risk assessment and management
 - statutory compliance
 - work health and safety
 - emergency response
 - environmental issues
 - quality management
 - communication, including:
 - briefings
 - handovers
 - toolbox meetings
 - site meetings
 - inspection program scheduling
 - asset condition classification
 - maintenance works prioritisation
 - industry and organisational maintenance
 - maintenance program review
 - maintenance program documentation
 - maintenance program reporting
 - maintenance program approval
 - maintenance program records filing
 - performance review
- principles and techniques for establishing civil works maintenance programs, including those related to:

- negotiation
- providing feedback
- choosing preferred options
- civil maintenance projects
- identifying and using civil works maintenance option works maintenance program development and implementation
- team leadership
- cost estimation
- road user behaviour
- use of innovation and new technology, including sourcing of information
- types, characteristics, technical capabilities and limitations of materials, plant and equipment required for establishing 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 establish 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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