



Australian Government

RIICAM409 Manage civil infrastructure datasets

Release: 1

RIICAM409 Manage civil infrastructure datasets

Modification History

Release	Comments
Release 1	This version first released with the RII Resources and Infrastructure Industry Training Package Version 8.0. Newly created unit.

Application

This unit describes the skills and knowledge required to document and manage civil infrastructure datasets. This includes an understanding of dataset functions and features.

The unit applies to those who work in a supervisory or paraplanning role. They generally perform a broad range of operational activities in their area of responsibility and are responsible for monitoring a safe work environment.

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

Unit Sector

Civil Infrastructure Asset Management

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. Determine organisational civil infrastructure dataset requirements	1.1 Obtain, interpret, clarify and confirm work requirements according to legislation, standards, regulations, codes, guidelines and manuals 1.2 Determine purpose of work activity and required outcomes 1.3 Identify and select civil infrastructure dataset according to task requirements
2. Implement procedures for managing civil infrastructure datasets	2.1 Configure dataset system start-up according to organisational vendor specifications 2.2 Securely store data collected into the dataset according to

	organisational procedures, legislative requirements, and industry practices 2.3 Document data findings in a retrievable format according to organisational policies and procedures and vendor specifications 2.4 Determine data integrity constraints according to organisational requirements 2.5 Modify the dataset according to task requirements 2.6 Save, back-up and close dataset according to vendor specifications
3. Review civil infrastructure dataset performance and security requirements	3.1 Review and document dataset security controls according to organisational requirements 3.2 Review dataset performance according to organisational requirements 3.3 Evaluate dataset capabilities for informing operational decision making 3.3 Monitor dataset storage according to organisational requirements 3.4 Manage access privileges, log files and dataset administration according to task requirements 3.5 Identify organisational areas for improvement in managing the civil infrastructure dataset and report to required personnel

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	Performs mathematical calculations
Oral communication	Conveys information and requirements clearly and listens actively
Planning and organising	- Plans, organises and completes work according to defined requirements and schedules - Prioritises tasks and own workload for required outcomes
Technology	Uses required technological tools and software in collecting and documenting data

Writing	Prepares information that complies with requirements, using sector-specific vocabulary, grammatical structures and conventions
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Unit Mapping Information

New unit.

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 RIICAM409 Manage civil infrastructure datasets

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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:

- manage civil infrastructure datasets for at least two different asset types.

In the course above, the candidate must:

- locate and apply required documentation, policies and procedures and confirm that the work activity is compliant
- apply diagnostic, problem solving and decision making techniques
- communicate clearly and concisely with others to receive and clarify work instructions.

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:

- key requirements of legislation, codes, regulations, standards and security arrangements relating to managing civil infrastructure datasets
- organisational policies and procedures applicable to managing civil infrastructure datasets, including:
 - financial plans
 - gap analysis
 - levels of service
 - pre-inspection survey packs
 - renewals
 - summary reports
 - work orders
 - work schedules

- records, dataset and documentation formats
- principles of dataset design
- processes for managing civil infrastructure datasets, including:
 - backup and recovery methodologies and procedures
 - dataset administration tasks and procedures
 - quality assurance practices
- features of civil infrastructure datasets, including:
 - dataset security concepts
 - dataset server management tools
 - data types
- key data collection methods, and their benefits and limitations, including:
 - aerial photo measurement
 - complaints systems
 - desktop surveys
 - formal visual inspections
 - global positioning system (GPS)
 - physical inspections
 - roughness testing
 - safety audits
 - surveyed
 - taped
 - visual and selection loading testing
- organisational information management strategies
- key data collection tools, and procedures for their use, including:
 - asset inventory
 - asset management systems
 - asset register
 - geographic information systems
 - spreadsheets.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required for managing civil infrastructure datasets
- 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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