



Australian Government

RIIWMG601D Establish and maintain water management system

Release: 3

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Modification History

Release	Comment
1	The unit replaces RIIWMG601A Establish and maintain water management system
2	Editorial corrections.
3	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit develops a participant's skills and knowledge required to establish and maintain a water management system in Coal and Metalliferous mining and Extractive.

This unit is appropriate for those working in management or technical specialist roles.

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

Unit Sector

Coal mining

Extractive

Metalliferous mining

Elements and Performance Criteria

1. Plan and prepare to establish and maintain water management system	1.1 Access, interpret and apply water management system documentation and ensure the work activity is compliant 1.2 Access, interpret and analyse organisational goals, objectives and strategies to determine required research 1.3 Investigate and analyse license, worksite environmental conditions and legislation to develop options, strategies and anticipated outcomes 1.4 Evaluate existing system and equipment suitability, taking into account operational requirements, safety and health issues and
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	environmental legislation/regulations 1.5 Research, evaluate, select and purchase new systems 1.6 Access, interpret and analyse research information to establish options and opportunities
2. Facilitate site environmental investigation	2.1 Consult with internal and external stakeholders in the planning process and gain their support for the outcomes 2.2 Establish strategies and systems to support analysis of the worksite environments 2.3 Ensure worksite environments are investigated to identify and assess the factors which impact on water management system 2.4 Ensure market opportunities are identified and explored to assist the organisation to forecast trends and options 2.5 Ensure water quantity and quality requirements and excesses are determined 2.6 Ensure threats and opportunities are identified, analysed and used to optimise project outcomes 2.7 Ensure titles searches are undertaken 2.8 Ensure legal obligations are identified and documented
3. Develop, implement and maintain procedures for the system	3.1 Ensure contingency plans for flood routing of water in operational area to cover peak flows are developed and implemented 3.2 Ensure site plans for surface drainage and total reticulation network are developed and implemented to service the life of the mine 3.3 Ensure procedures for pumping waters from the mine are developed and meet licence conditions 3.4 Ensure work procedures are developed for drainage and road geometry 3.5 Ensure staged development of civil aspects are planned and interpret 3.6 Ensure water treatment systems are designed to specification 3.7 Ensure maintenance work procedures for the drainage scheme of the worksites are developed and implemented 3.8 Identify, clarify and communicate roles and responsibilities 3.9 Develop and implement information and training systems to support water management 3.10 Prepare an emergency response plan for failure or critical aspects the system
4. Evaluate the	4.1 Identify and agree on performance indicators and criteria for

system	the evaluation of statutory compliance and system effectiveness 4.2 Ensure site drainage, reticulation and wastewater treatment is monitored against agreed indicators 4.3 Ensure quality of site drainage effluent is monitored, recorded and reported 4.4 Ensure hydrological effects and sensitive ecological/conservation sites are monitored 4.5 Ensure instances of non-compliance with regulatory requirements are identified, assessed and addressed
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Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIWMG601A Establish and maintain water management system

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for RIIWMG601D Establish and maintain water management system

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant legislation, documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient establishing and maintenance of water management systems including:
 - accessing and using information management technologies
 - accessing, reading and interpreting survey plans
 - interpreting geological and hydrological data
 - evaluating new and used equipment
 - identifying and applying people and processes management techniques
 - identifying and applying negotiation techniques
 - preparing and presenting management reports
 - preparing operating budgets
 - preparing tender specifications
 - applying conflict resolution techniques
- works effectively with others to undertake and complete the establishing and maintenance of water management systems tasks that meet all the required outcomes including:
 - consulting with internal and external stakeholders

- identifying, allocating, clarifying and communicating roles, responsibilities and targets
- using a range of communication techniques and equipment to convey information to others
- issuing and maintaining written and verbal reporting requirements and procedures
- organising work activities to meet task requirements
- developing, implementing, communicating and maintaining system procedures
- demonstrates completion of establishing and maintaining of water management systems that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - identifying, assessing and selecting program components
 - identifying required information and scope of work
 - accessing, interpreting and analysing research, information and requirements
 - identifying and applying strategies and systems to investigate the worksite
 - ensuring worksite environmental investigations are completed
 - developing contingency and site plans and procedures for the system
 - assessing design of water treatment systems
 - developing and implementing information and training systems
 - monitoring, recording and reporting on system performance

Knowledge Evidence

The candidate must demonstrate knowledge in establishing and maintaining a water management system through:

- accessing, interpreting and applying drainage systems techniques
- identifying, assessing and addressing environmental requirements
- accessing, interpreting and applying financial management techniques
- accessing, interpreting and applying mine design techniques
- identifying mine plant and equipment capabilities and limitations
- accessing, interpreting and applying mine water management systems techniques
- accessing, interpreting and applying organisational objectives
- accessing, interpreting and applying safety features of water management systems
- identifying and applying team management techniques
- establishing training and assessment systems

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,

- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 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.	

*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 frequent site assessments across various locations.

****Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level**

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