



Australian Government

MSS027009 Coordinate site remediation or rehabilitation activities

Release: 2

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Modification History

Release 1. Supersedes and is equivalent to MSS027009A Coordinate site remediation or rehabilitation activities.

Release 2. Prerequisite code updated. Equivalent outcome.

Application

This unit of competency covers the ability to oversee the day-to-day environmental remediation or rehabilitation activities at a site in accordance with an established management plan. Personnel assist with the planning and implementation of specific remediation or rehabilitation activities, liaise with contractors and consultants, and monitor both the progress and effectiveness of the activities. They work under the supervision of an environmental scientist or engineer, site manager or workplace environmental manager.

This unit of competency is applicable to environmental site coordinators, environmental managers and senior environmental officers working in a range of industry sectors, such as environmental monitoring, sampling and field testing (e.g. air, water, soil and noise); geotechnical services; natural resource management (e.g. wetlands); landfill management; site remediation or rehabilitation services (e.g. mine, construction and industrial). Note that the term 'manager' is used to refer to management of a function, project and /or program and does not necessarily imply line management.

While no specific licensing or certification requirements apply to this unit at the time of publication, environmental monitoring and management activities are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Path 1	MSS025021	Collect and evaluate groundwater data
	MSS025022	Perform sampling and testing of soils
	MSS024020	Recognise common geological landforms and samples
Path 2	MSS025021	Collect and evaluate groundwater data
	MSS025022	Perform sampling and testing of soils
	MSS025013	Assist with assessing and monitoring wetlands

Competency Field

Management

Unit Sector

Environmental

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Confirm scope of site remediation and/or rehabilitation activities with manager	1.1	Locate and review legislative, regulatory, licensing/approval and planning requirements that apply to the site.
		1.2	Review background information, site remediation/rehabilitation management plan and any relevant reports.
		1.3	Review site remediation/rehabilitation goals and strategies, key stakeholders and their issues and likely constraints.
		1.4	Review the technical specifications and plans for each activity.
		1.5	Confirm the roles and responsibilities of the workplace staff, consultants and contractors involved; the work requirements and timeframe for each activity.
		1.6	Confirm own role, limits of responsibility and reporting requirements for the coordination of assigned activities.
2	Plan and organise activities	2.1	Consolidate schedules of activities, timeframes and milestones on a single planning management framework to enable efficient coordination of each activity.
		2.2	Use appropriate project management tools to achieve efficient integration and sequencing of activities.
		2.3	Ensure that forward planning takes into account variables such as seasonal factors, availability of equipment, seeds and plants and site access.
		2.4	Identify possible/actual clashes and negotiate solutions

- with other staff, consultants, contractors and/or own manager, as appropriate.
- 3 **Liaise with site personnel and community members**
- 3.1 Confirm that staff, consultants and/or contractors understand the timing and technical specifications for their assigned remediation/rehabilitation activities.
- 3.2 Confirm that staff, consultants and/or contractors are aware of hazards and understand site safety procedures and their environmental management obligations.
- 3.3 Provide timely, authorised information to community members about remediation/rehabilitation activities in accordance with workplace procedures.
- 3.4 Solve problems and address issues/complaints arising from remediation/rehabilitation activities within scope of responsibility.
- 3.5 Refer complex problems, issues and complaints to relevant personnel in accordance with workplace procedures.
- 4 **Monitor progress of activities**
- 4.1 Anticipate risks to progress and notify relevant personnel.
- 4.2 Monitor completion of activities and progress against work requirements and milestones.
- 4.3 Develop solutions in response to problems and unforeseen or changed circumstances in consultation with site personnel and/or own manager, as appropriate.
- 4.4 If necessary, negotiate and/or implement adjustments to work programs with site personnel in accordance with workplace procedures.
- 4.5 Record and store required information for each activity.
- 5 **Monitor the effectiveness of activities**
- 5.1 Conduct, or arrange for, site inspections to check if work requirements for each activity have been met.
- 5.2 Conduct, or arrange for, the monitoring of specified environmental parameters to assist with the evaluation of

- remediation/ rehabilitation activities.
- 5.3 Examine results of regular surveys, inspections and environmental monitoring to identify significant trends in data, performance indicators or non-conformances.
 - 5.4 If necessary, clarify any significant remediation/ rehabilitation performance issues with the consultant or contractor involved to ensure details are fully understood.
 - 5.5 Seek manager's advice when challenges are beyond own technical competence or when further input from environmental specialists may be required.
- 6 **Report the progress and effectiveness of activities**
- 6.1 Provide regular reports to relevant personnel about the progress and environmental performance of assigned remediation/rehabilitation activities.
 - 6.2 Report any instances of potential/actual environmental management non-conformance and incidents and the actions taken in each case.
 - 6.3 Report opportunities and recommendations for improved coordination of remediation/rehabilitation activities accordance with workplace procedures.
- 7 **Maintain records of activities**
- 7.1 Ensure all required records are legible, accurate and satisfy workplace/legislative requirements.
 - 7.2 Store records of remediation/rehabilitation activities to enable easy access and review by authorised personnel.

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Legislation, regulations, standards, codes, workplace procedures and requirements include the latest version of one or more of:

- federal legislation, such as the Environment Protection and Biodiversity Conservation Act, Australian Heritage Council Act, Native Title Act and National Environmental Protection Measure (Assessment of Site Contamination)
- state/territory government legislation and local government by-laws, policies, regulations and plans dealing with land use, acquisition, planning and protection; environmental protection; cultural/heritage protection; vegetation management; nature conservation and wildlife/plant protection; water, water management; soil conservation; pollution and contaminated sites; fisheries, forestry and mining operations
- legislation, standards and codes of practice for work health and safety (WHS)
- Australian and international standards covering environmental management (e.g. AS/NZS ISO 14000 Basic Set:2007 Environmental Management Basic Set); sampling, testing and/or monitoring of air, water and soils
- industry methods and guidelines, such as ANZECC Guidelines for the Assessment of Contaminated Soil, and Leading Practice Sustainable Development Program for the Mining Industry (Mine Rehabilitation)
- registration/licensing and/or accreditation requirements
- site-specific information, such as applicable legislative requirements and approval requirements; work schedules; industrial processes and remediation/rehabilitation processes; environmental management and rehabilitation program plans; monitoring/inspection procedures and management actions to prevent/control environmental impacts or risks; methods for sampling and in-field testing; procedures for recording, processing, presenting and reporting data; job hazard analyses; safe work procedures and work method statements
- workplace documents, such as standard operating procedures (SOPs); equipment manuals and warranties; supplier catalogue and handbooks; safety data sheets (SDS); waste minimisation, containment, processing and safe disposal procedures.

Remediation/rehabilitati

- site goals and success criteria

on plans, programs and activities include one or more of:

- regulatory, licensing and approvals requirements
- consultation processes and community engagement
- characterisation of site to identify materials and/or contamination present, such as:
 - materials segregation and selective placement
 - material budget and schedule
 - identification of limitations to plant growth
- initial site assessment, such as:
 - protection measures for rare/endangered species and heritage sites
 - climate
 - water budget and salt budget
 - growth media (e.g. harvested topsoils)
- remediation/rehabilitation program/activities, such as:
 - landform design (e.g. placement, height, footprint, drainage, mode of construction, profiles and covers)
 - management of waste rock, tailings and/or wastewater
 - removal, containment and/or on/off site treatment of contaminated materials
 - landform reconstruction, filling of voids/pits and reinstatement of water diversions
 - topsoil management to preserve soil fertility and biota, treatments and fertiliser use
 - establishment of vegetation (e.g. controlling weeds; collection and retention of local seeds and propagules; seeding [supply, treatment, spreading and hydro]; hand/machine planting of seedlings; mulching, watering, maintenance and staking/protection)
 - establishment of fauna communities (e.g. controlling problem animals and constructing habitats)
 - environmental parameters and monitoring procedures for remediation/rehabilitation program
- recording and reporting requirements.

Background information includes one or more of:

- legislative/regulatory, permit, licence and approval requirements for site
- site access protocols and permits
- site history, client history and correspondence
- site industrial processes and work schedules
- records of consultations with stakeholders
- road and topographical maps
- existing databases (e.g. vegetation, topography, soils and

	regional ecosystem maps) • geological, hydro geological, ecological and meteorological data for site • workplace environmental management plans for site • site emergency plans and safety procedures • workplace, regulatory or standard methods/procedures for environmental sampling, monitoring or in-field testing • relevant reports, case studies and good practice models for site remediation/rehabilitation.
Site personnel and community members include one or more of:	• employees, site and project managers • contractors and subcontractors • suppliers and service providers • consultants (e.g. scientists, planners, engineers and external auditors) • government/regulator representatives and inspectors • community representatives, landowners, traditional owners and community volunteers.
Safety procedures include one or more of:	• identifying hazards, assessing and reporting risks • cleaning, maintaining and storing tools, equipment and machinery • safe operation of tools, equipment and machinery • safe handling, use and storage of chemicals and other hazardous materials • safe manual handling of items • obeying signage and using safety equipment, such as protective barriers • using specified personal protective equipment (PPE).
Environmental obligations of site personnel include one or more of:	• sustainable use of resources • duty of care to protect the site's natural, cultural and heritage values • not polluting, damaging or degrading the site's natural resources, ecological processes or biodiversity • avoiding introduction or transfer of weeds or plant/animal pathogens in soils.
Monitoring strategies include one or more of:	• use of transects to collect data across many types of landscape or ages of revegetation • use of point and quadrat sampling along transects

- ecosystem function analysis
- landscape and soil analysis (e.g. rainfall, infiltration, run-off, erosion, plant growth and nutrient cycling)
- vegetation analysis (e.g. species composition and structure)
- habitat and fauna analysis (e.g. use of indicator species, such as reptiles and ants, and soil-litter biota)
- use of remote sensing (e.g. aerial photography and satellite imagery).

Environmental monitoring parameters for remediation/rehabilitation programs include one or more of:

- air quality
- quality of surface water and groundwater
- residual contamination in soils
- surface (and slope) stability
- assessment of erosion, measurement of suspended sediment loads in run-off
- performance of constructed covers over mine or industrial/mineral processing waste
- properties of soil or root zone media such as chemistry, fertility and water
- plant community structural attributes such as cover, and woody species density and height
- plant community composition such as presence of desired species, condition and abundance
- presence of pest species such as feral animals and weeds
- selected indicators of ecosystem functioning such as soil microbial biomass and ants
- return of selected mammals, reptiles, macro-invertebrates, fish and birds to site.

WHS and environmental management requirements include:

- compliance with relevant federal/state/territory WHS legislation at all times
- assuming that samples are potentially hazardous and applying standard precautions
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and state/territory Departments of Health, where relevant.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS027009A Coordinate site remediation or rehabilitation activities

Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

Assessment Requirements for MSS027009 Coordinate site remediation or rehabilitation activities

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Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- planning and implementing the day-to-day remediation or rehabilitation activities for at least **one (1)** site
- accessing, interpreting and applying relevant legislative and regulatory requirements, standards, codes, guidelines and site environmental management plans
- applying a working knowledge of remediation/rehabilitation principles to analyse complex technical briefs and develop/refine implementation plans
- clearly explaining workplace site remediation/rehabilitation management and implementation plans, procedures and the technical details of specific activities to site personnel
- supporting, communicating and consulting with site personnel and/or community members to achieve quality outcomes on time and within budget
- analysing and solving project management problems, such as meeting tight deadlines; controlling costs; coordinating multiple activities; responding to changed or unforeseen circumstances; and negotiating changes to timelines, roles, responsibilities and resources
- seeking advice when challenges are beyond own technical competence/responsibility or when input from environmental specialists may be required
- using information management systems and/or project management tools to monitor progress and maintain accurate records of activities
- providing regular information and reports of progress and outcomes of activities
- recommending ways of improving the coordination of future remediation/rehabilitation activities
- working safely and monitoring the safety of others.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- environmental protection/management terminology, concepts and principles used in job role
- legislative, regulatory, permit, licensing, approval requirements and processes relevant to site remediation/rehabilitation activities
- common site remediation/rehabilitation goals, success criteria and strategies

- remediation/rehabilitation planning and design principles, including stakeholder engagement
- site remediation and rehabilitation methods and techniques relevant to job role
- common examples of environmental parameters, analytical tests and flora and fauna surveys used to monitor the effectiveness of site remediation/rehabilitation
- site characteristics, nature of activities conducted at site, environmental management values, environmental issues, risks and impacts
- workplace environmental management plans, procedures, control measures and management actions for site activities
- project management principles
- workplace project management procedures and controls, such as:
 - project governance requirements
 - stakeholder management
 - quality standards
 - risk management plans
 - record management and reporting, confidentiality and security of information
 - quotation, tendering, procurement and contract management procedures, and delegations
 - financial management procedures
 - human resource management procedures and industrial agreements
- interpersonal communication, negotiation and conflict resolution techniques
- problem-solving techniques
- relevant hazards, health, safety and workplace emergency response procedures.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace, or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process such as workbooks, written assessments or interviews (provided a record is kept in each case).
- Holistic assessment methods include:
 - review of plans, records, outcomes and reports prepared by the candidate about site remediation/rehabilitation activities they have coordinated

- feedback from manager, site personnel and/or community members about the candidate's ability to effectively coordinate remediation or rehabilitation activities
- oral and/or written questions to assess the candidate's understanding of remediation/rehabilitation principles, project management and problem-solving strategies, environmental parameters, analytical tests and flora and fauna surveys used to monitor the effectiveness of site remediation/rehabilitation
- observation of the candidate's interactions with site personnel and/or community members.
- Access is required to all instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit including, but not limited to:
 - background information for site and remediation/rehabilitation projects/programs
 - workplace environmental management plans and procedures, control measures and management actions for site activities, project management tools and workplace information management systems.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with an organisation providing environmental monitoring, management or technology related services about performing the competency being assessed within the last twelve months.

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