



Australian Government

Department of Education, Employment and Workplace Relations

CPPWMT4056A Implement landfill rehabilitation plans

Release: 1

CPPWMT4056A Implement landfill rehabilitation plans

Modification History

Revised unit

Unit updated and equivalent to PRMWM56A Implement landfill rehabilitation plan

Unit Descriptor

This unit of competency specifies the outcomes required to rehabilitate a landfill site, including recontouring, profiling soil, constructing drains and berms, and planting flora. It requires the ability to apply safe work practices in a landfill environment. It also requires the ability to supervise a field team.

Application of the Unit

This unit of competency supports individuals with responsibilities for organising landfill operations, leading a team or supervising a site. It includes contributing to the implementation of developed strategies, systems and plans, as well as recognising the need for expert advice.

Licensing/Regulatory Information

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

Pre-Requisites

Not applicable.

Employability Skills Information

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

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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| 1 | Organise for rehabilitation of landfill site. | <p>1.1 <i>Environmental management</i> and site development plans are reviewed to clearly identify job requirements.</p> <p>1.2 <i>Potential hazards and risks</i> of job requirements are identified and managed, according to <i>organisational requirements</i>, and occupational health and safety (OHS) regulations and other <i>legislation and codes</i>.</p> <p>1.3 <i>Supervisory processes</i> and checks and measures are implemented to ensure work is completed within <i>time available</i>.</p> <p>1.4 <i>Plant</i> and <i>equipment</i> required for work are identified and accessed according to organisational requirements.</p> <p>1.5 Tools and <i>material</i> required for work are identified and accessed according to organisational requirements.</p> <p>1.6 <i>Emergency and personal protective equipment</i> (PPE) is selected and fitted according to job requirements, <i>manufacturer specifications</i>, organisational requirements and legislation and codes.</p> <p>1.7 Safety barriers and signage are erected at work site to ensure safety of surrounding personnel and public, according to organisational requirements and legislation and codes.</p> |
| 2 | Recontour rehabilitation area. | <p>2.1 Area is recontoured so that it blends into surrounding environment or conforms to closure/rehabilitation plan.</p> <p>2.2 Creation of dust is minimised by using approved earthmoving techniques.</p> <p>2.3 Final landform is checked to ensure it replicates</p> |

- surrounding environment or conforms to closure/rehabilitation plan and environmental guidelines.
- 2.4 **Catchment** construction is determined by site and weather conditions according to closure/rehabilitation plan and environmental guidelines.
- 3 Profile soil.
- 3.1 **Soil profile** is constructed according to environmental guidelines that are designed to stabilise **contamination** of materials, soil and surrounding areas.
- 3.2 Materials for sub-soil are selected, taking vegetation requirements into account.
- 3.3 Construction of soil profile horizon is checked to ensure it emulates surrounding environment or conforms to closure/rehabilitation plan.
- 3.4 Landform construction is checked for completion prior to placement of final soil layer.
- 3.5 Soil horizon construction is checked to ensure it follows land contour to reduce water flow down slope and increase water storage capabilities.
- 3.6 Nutrients are added to soil according to closure/rehabilitation plan and environmental guidelines.
- 4 Construct drains and berms.
- 4.1 **Drain and berm** locations are pegged and constructed in appropriate locations and angles to ensure control of water flow, according to closure/rehabilitation plan.
- 4.2 **Drain mechanisms** are placed at required dimensions and appropriate catchment locations are provided for sediment according to closure/rehabilitation plan.
- 4.3 **Erosion** of drain edges is controlled through placement of appropriate drain mechanisms to reduce speed of water flow.
- 4.4 Erosion is reduced by placing berms at intervals according to closure/rehabilitation plan.

- 5 Plant flora.
 - 5.1 Seeds, ground covering, plants and trees are planted, protected and maintained according to planting requirements and specifications.
 - 5.2 Fertiliser is applied according to plant type, soil quality, manufacturer specifications, organisational requirements and closure/rehabilitation plan.
 - 5.3 Planting arrangement is checked to ensure it conforms to contour of site and pattern specification as detailed in closure/rehabilitation plan.

6	Record rehabilitation activities.	6.1	Details of landfill site rehabilitation are recorded promptly and according to organisational requirements and legislation and codes.
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Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- equipment operation and material handling skills to use:
 - PPE
 - hand tools
- interpersonal skills to:
 - work in a team environment
 - lead teams
- reading skills to interpret:
 - drawings
 - specifications
 - technical plans
 - material safety data sheets (MSDS)
 - documents
- problem-solving skills to identify hazards and risks
- self-management skills to:
 - apply diagnostic techniques
 - conduct work practices safely and efficiently
 - organise work methodically
 - keep records
 - use information technology to complete tasks
 - use emergency and PPE
 - work in confined area
- oral communication skills to:
 - ask questions
 - listen effectively
 - consult with other staff or team members
 - signal
 - give instructions and information

- planning and initiative skills to supervise teams, including:
 - providing guidance
 - determining and allocating work requirements
 - demonstrating functions associated with a rehabilitation plan
 - undertaking quality control inspections
 - planning and problem solving in tasks
- critical thinking skills to implement landfill rehabilitation plan, identifying:
 - land rehabilitation prospects
 - resource needs
 - hazards and risks
- written communication skills for:
 - report writing
 - documentation

Required knowledge

- environmental issues relating to:
 - life cycle of products: re-new, re-use and recycle
 - environmental regulations
 - renewable energy
- gardening methods, including:
 - flora, soil and nutrient requirements
 - draining methods
 - seed and plant varieties
 - seed and plant planting methods
 - watering principles
 - soil dynamics
 - fertiliser characteristics and application methods
- identification of:
 - hazardous waste
 - waste types, streams and characteristics
 - waste non-conformances
 - unanticipated waste
 - waste non-conformance procedures
 - waste containment
 - waste disposal and recovery routes
- interpretation of ground conditions for:
 - dumping techniques
 - pushing techniques
 - mixing and applying fertiliser
 - planting seedlings by machine and hand

- watering
- landfill site development plan:
 - plant and equipment requirements for site operations
 - tool and material requirements for site operations
- material placement procedures, including:
 - recontouring characteristics
 - catchment systems
 - principles of erosion and water run-off
 - dust suppression
 - soil profiling
 - soil dynamics
 - soil horizon construction
 - draining methods
- OHS requirements relating to:
 - dangerous goods and hazardous substances
 - OHS hierarchy of control
- rehabilitation plan, including:
 - closure/rehabilitation
 - job requirements
 - review of rehabilitation plan
- resource recovery options relating to:
 - valuable resources within materials
 - potential resources to be recovered
- waste assessment review, including:
 - analysing waste practices
 - analysing previous assessment plans and processes
 - outlining possible benefits and outcomes from conducting waste assessment
 - incorporating standard audit requirements and procedures
 - incorporating nature and significance of waste minimisation hierarchy
 - incorporating types of client waste management surveys and their uses
- waste management provision, including:
 - duty of care
 - legislation, regulations and codes of practice applicable to specific waste management functions
 - organisational pricing schedules
 - organisational requirements and structure, including workplace communication channels and procedures
 - waste management hierarchy
 - waste management options

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	This unit of competency could be assessed by observation of practical demonstration in the workplace or in a simulated environment, demonstrating the implementation of landfill rehabilitation plans.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	A person who demonstrates competency in this unit must be able to provide evidence of the required skills and knowledge specified in this unit. In particular the person should demonstrate the ability to: • determine rehabilitation work required • determine plant, equipment, tool and material requirements • profile soil and construct drains and berms according to closure/rehabilitation plan • comply with OHS requirements.
Context of and specific resources for assessment	Assessment of essential underpinning knowledge may be conducted in an off-site context. It is to comply with relevant regulatory or Australian standards' requirements. Resource implications for assessment include: • work plans and approved specifications • forms and procedures manuals.
Method of assessment	The implementation of a landfill rehabilitation plan must comply with industry expectations in the particular client environment. If the environment is narrowly defined or is not representative of industry needs, it may be necessary to refer to portfolio case studies to assess competency in landfill rehabilitation implementation. Assessment methods must: • satisfy the endorsed Assessment Guidelines of the Property Services Training Package • include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application • reinforce the integration of employability skills with workplace tasks and job roles • confirm that competency is verified and able to be transferred to other circumstances and environments.
Guidance information for	Reasonable adjustments for people with disabilities must be made to

assessment	assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support. Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed. This unit could be assessed on its own or in combination with other units of competency relevant to the job function, for example: • CPPCMN4002B Implement and monitor environmentally sustainable work practices • CPPWMT4030A Determine waste management services • CPPWMT5004A Develop waste management strategies • CPPWMT5036A Develop waste management plans • CPPWMT5057A Develop landfill rehabilitation plans.
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Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Environmental management may include:	• carbon emission policy • environmental incidents • lean management • minimisation of waste • recycling • reducing use of non-renewable resources • environmental protection legislation • resource efficiency • resource recovery • voluntary environmental agreements entered into with external organisations • maintenance • production estimates and schedules • sampling and testing • support function requirements • sustainable management • waste prevention • waste receipt schedule • waste transportation requirements.
Potential hazards and risks are those identified by the organisation that may lead to:	• damage to plant, vehicle or property • harm to the environment • illness or injury to employees, contractors or the public • injuries resulting from manual handling and repetitive work.
Hazards and risks may include:	• broken glass • broken metal • compaction equipment • contamination • dust • fire • gases and fumes • hazardous waste (e.g. sharps) • narrow driveways • other vehicles and equipment • overhanging signs • projectiles

	• spark-producing equipment • unguarded conveyor belts • weather.
Organisational requirements may include information found in:	• briefing papers • job sheets • letters • memos • operations manuals • policy and procedures documents • quality assurance documents • site development plans • tender and contract documents • training materials • verbal or written instructions • work procedures.
Legislation and codes may include:	• codes, including: • Australian Code for the Transport of Dangerous Goods by Road and Rail • industry • commonwealth, state and territory legislation, including: • anti-discrimination • environmental protection • equal employment opportunity • freedom of information • industrial • OHS • trade practices • road laws.
Supervisory processes may include:	• delegating • implementing • monitoring • overseeing • planning • reviewing • targeting practices to meet deadlines.
Time available may include considering:	• client instructions • contingencies • past experiences • skills and experience of operatives • location of project • methods to be employed

	resources and equipment to be used.
Plant may include:	- autoclave - balers - boilers - bunded areas - centrifuge - chippers - compactors - combustion - composters - computer hardware and software - conveyors - crushers - hammer mills - incinerator - materials recovery facility - microwave - pipes - processing plants, including size-reduction processing plant - safety structures and controls - separators - shredders - sorters - storage tanks - transfer station - treatment plants, including: - biological treatment plant - chemical treatment plant - liquid waste treatment plant - microwave treatment plant - physical treatment plant - treatment tanks - tub grinders.
Equipment may include:	- barriers and warning signs - compactors - computer and associated hardware and software - conveyors - dozers - earthmoving equipment - forklifts - generators

	• hoses • lawnmowers • lifting equipment • loadshifting equipment • pumps • safety barriers and signage • sampling equipment • scales • scrapers • skips • sorting tables • storage containers • tractors • trucks: • articulated • rigid • vacuums • waste containers • weighbridge.
Material may include:	• cell cover materials • cleaning fluids • cleaning rags • fertiliser • fuel • fuses • globes • gravel for wet weather tipping areas • lawn seed • lubricants • oil • pesticides • plant protection covers • plants • road repairing materials: • compacted materials • dirt • gravel • sand • water.
Emergency and personal protective equipment	• communications equipment • eye protection, such as goggles and protective glasses

must include:	• eyewash kit • fire extinguishers • first aid kit • footwear • gloves • overalls and protective clothing.
Emergency and personal protective equipment could also include:	• breathing apparatus • emergency procedure guides • face shields or masks • hard hats • hearing protection • material safety data sheets • spill kit.
Personal protective equipment must be:	• cleaned and fitted according to organisational requirements, manufacturer specifications and OHS requirements • worn when required according to organisational requirements • stored according to organisational requirements.
Manufacturer specifications are found in:	• equipment specifications • instruction leaflets • operator manuals.
Catchment may include:	• diversion channels • holding structures, such as: • banks • dams • drains • sediment dams.
Soil profile may include:	• gravel • topsoil • various grades and types of materials.
Contamination may include:	• exposure to sunlight • infestation • mixing with other waste types • rot or mould • waterlogging.
Drain and berm may be:	• concrete • plastic • rock • soil.
Drain mechanism may include:	• berm • flora coverage, such as:

	• grasses • small bushes • netting.
Erosion may include:	• water run-off • wind.

Unit Sector(s)

Waste management

Custom Content Section

Not applicable.