



Australian Government

Department of Education, Employment and Workplace Relations

CPPWMT5057A Develop landfill rehabilitation plans

Release: 1

CPPWMT5057A Develop landfill rehabilitation plans

Modification History

New unit

No equivalent unit

Unit Descriptor

This unit of competency specifies the outcomes required to develop a landfill rehabilitation plan. Landfill rehabilitation will typically involve recontouring, profiling soil, constructing drains and berms, and planting flora, within local government provenance.

Application of the Unit

This unit of competency supports individuals with responsibilities for planning landfill operations. It requires the ability to work in a planning team, developing strategies, systems and plans. It also requires recognition of 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

This unit contains employability skills.

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 | Review and evaluate landfill rehabilitation strategies to determine possible options. | 1.1 | Landfill rehabilitation strategies are reviewed to determine all site development options, including catchment devices , and drain and berm mechanisms to minimise erosion . |
| | | 1.2 | Feasibility of landfill rehabilitation strategies is assessed to ensure development of a realistic and achievable plan that complies with client requirements , occupational health and safety (OHS) standards and legislation and codes . |
| | | 1.3 | Client is consulted in the development of landfill rehabilitation plan according to organisational requirements . |
| 2 | Determine requirements of landfill rehabilitation plan. | 2.1 | Local government authorities are consulted regarding the local provenance guidelines pertaining to development of landfill rehabilitation plan. |
| | | 2.2 | Landfill rehabilitation plan is produced that fully addresses the construction of the soil profile to ensure that contamination is stabilised in a manner that complies with legislation and codes and environmental guidelines. |
| | | 2.3 | All aspects of implementation and, where provided, client's environmental aims are included in landfill rehabilitation plan. |
| | | 2.4 | Landfill rehabilitation plan is recorded and filed according to organisational requirements . |
| 3 | Present plan. | 3.1 | Landfill rehabilitation plan is presented to client. |
| | | 3.2 | Explanation of rationale, benefits and implementation process is provided to ensure that client is satisfied with plan. |
| | | 3.3 | Feedback from clients is obtained and integrated into plan. |

Required Skills and Knowledge

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

Required skills

- analytical skills to:
 - develop diagnostic techniques for landfill rehabilitation
 - conduct feasibility analysis
 - research, plan and evaluate
 - list options through procedures, such as brainstorming
- interpersonal skills to provide guidance on landfill rehabilitation options
- reading skills to interpret:
 - data
 - drawings
 - organisational policies
 - specifications
 - technical plans
- management skills to:
 - apply diagnostic techniques
 - conduct complex problem solving
 - identify hazards and risks
 - organise work methodically
 - use information technology to complete tasks
 - use emergency and personal protective equipment (PPE)
- critical thinking skills to:
 - discuss landfill rehabilitation options
 - present options
 - negotiate final rehabilitation plan
- written communication skills for:
 - report writing
 - planning documentation

Required knowledge

- development of rehabilitation plan, including:
 - drawings
 - specifications
 - technical plans
 - material safety data sheets (MSDS)
 - strategies
- 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:
 - waste types, streams and characteristics
 - waste non-conformances
 - unanticipated waste
 - waste non-conformance procedures
 - waste containment
 - waste disposal and recovery routes
 - hazardous waste
- interpretation of ground conditions for:
 - dumping techniques
 - pushing techniques
 - mixing and applying fertiliser
 - planting seedlings by machine and hand
 - watering
- landfill site development plan, including:
 - plant and equipment requirements for site operations
 - tools and material requirements for site operations
- landfill rehabilitation issues, including:
 - strategies available
 - analysing previous assessment plans and assessment processes
 - nature and significance of waste minimisation hierarchy
 - 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 or rehabilitation
 - job requirements
- 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 assessment processes
 - outlining possible benefits and outcomes
 - incorporating standard audit requirements and procedures
 - incorporating nature and significance of waste minimisation hierarchy
 - incorporating types of client waste management surveys and their uses
- service requirements for landfill rehabilitation, including:
 - organisational requirements and structure, including workplace communication channels and procedures
 - legislation, regulations and codes of practice applicable to specific waste management functions
 - waste management options
 - organisational pricing schedules
 - waste management hierarchy
 - duty of care

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 demonstration of the landfill rehabilitation plans developed.
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 features required for a landfill rehabilitation plan, incorporating client requirements and OHS requirements • conduct life cycle assessment • apply landfill analytical methods, incorporating environmental regulations • present developed landfill rehabilitation plan.
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	Landfill rehabilitation planning 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 planning. 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 processes where required. This could include access to

assessment	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 • CPPWMT4056A Implement landfill rehabilitation plans • CPPWMT5004A Develop waste management strategies • CPPWMT5036A Develop waste management 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.

<i>Landfill rehabilitation strategies</i> may include:	• advertising • constructing drains and berms • education • employee participation • planting flora • process audit • profiling soil • recontouring.
<i>Catchment devices</i> may include:	• diversion channels • holding structures, including: • banks • drains • dams • sediment dams.
<i>Drain and berm</i> may be:	• concrete • plastic • rock • soil.
<i>Drain and berm mechanisms</i> may be:	• berm • flora coverage, including: • grasses • small bushes • netting.
<i>Erosion</i> may include:	• water run-off • wind.
<i>Feasibility of landfill rehabilitation strategies</i> may include:	• catchment systems • compliance with legislation and codes • cost-benefit analysis • costs • draining methods • dust suppression procedures • fertiliser characteristics and application methods • flora soil and nutrient requirements • lead time

	• material placement procedures • organisational requirements • principles of erosion and water run-off • process constraints • recontouring characteristics and procedures • resource requirements, including: • equipment • personnel • resources available • seed and plant planting methods • seed and plant varieties • soil dynamics • soil horizon construction methods • soil profiling methods • watering principles.
<i>Client requirements</i> may include expectations expressed in:	• briefing papers • contract documents • letters • memos • quality assurance documents • tender documents • verbal or written instructions.
<i>OHS standards</i> may include:	• emergency procedures • emergency procedure guides • MSDS • OHS legislation • PPE • spill kit.
<i>Legislation and codes</i> 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.

Client may include:	- all forms of business enterprises in this context, including: - government agencies - internal customers - local governments and councils - private and public companies - residents and ratepayers.
Landfill rehabilitation plan may include:	- implementation strategies, including: - catchment systems - compliance with legislation and codes - costs - draining methods - dust suppression procedures - erosion prevention - fertiliser characteristics and application methods - flora soil and nutrient requirements - MSDS - material placement procedures - OHS procedures - PPE - recontouring procedures - legislation and codes - resource allocation - seed and plant planting methods - soil horizon construction methods - soil profiling methods - watering schedules - work procedures - objectives pertaining to: - changes to processes and procedures - cost-benefit analysis - education and training - environmental issues - site contract requirements - watering principles - review strategies, including: - internal and external audits - monitoring personnel performance following training - undertaking quality control checks - reviewing effectiveness of new procedures and processes

	- formalising review strategies via re-planning - samples - targets, such as: - meeting rehabilitation deadlines - meeting site contract requirements.
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.
Local provenance guidelines may include:	- flora planting, such as: - what types - where - issues pertaining to local area - local government requirements.
Soil profile may include:	- gravel - grades of materials - topsoil - types of materials.
Contamination may include:	- exposure to sunlight - infestation - mixing with other waste types - rot or mould - waterlogging.
Aspects of implementation may include:	- catchment systems - compliance with legislation and codes - costs - draining methods - dust suppression procedures - education - erosion prevention - fertiliser characteristics and application methods - flora soil and nutrient requirements - MSDS

	• material placement procedures • OHS procedures • PPE • process changes • recontouring procedures • legislation and codes • resource allocation • seed and plant planting methods • timelines • schedules • site contract requirements • soil horizon construction methods • soil profiling methods • watering schedules • work procedures.
Presentation may include:	• discussion • electronic communication • PowerPoint • written report.

Unit Sector(s)

Waste management

Custom Content Section

Not applicable.