



The Central Australian Remote Landfill Operating Manual

(Revised September 2016)

**For use in communities of the Barkly,
Central Desert and MacDonnell
Regional Councils**



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The Central Australian Remote Landfill Operating Manual

Introduction

The Central Australian Remote Landfill Operating Manual or “Manual” is a practical guide for remote landfills across the Barkly, MacDonnell and Central Desert Regional Councils.

Landfills in the Central Australian region have historically been subject to neglect and legacy issues that affect the efficiency, safety and health of landfill sites. This recognition led to the establishment of the Central Australian Waste Management Program being in 2012.

This document is a practical guide intended to assist Council Service Coordinators, Council Managers, Works Supervisors and field staff to implement effective change at their landfill sites. The framework outlined in the Manual applies to remote landfills and will assist in long term improvements and functionality that will keep landfills operating well. The Manual helps put in place training for staff and ongoing management principles that will assist Councils in the task of maintaining healthy and well-functioning landfill sites.

This resource consolidates existing waste management resources that have been created by Barkly, Central Desert and MacDonnell Regional Councils. The Manual recognises the LGANT *Waste Management Guidelines for Small Communities* in the Northern Territory as a key document.

This Manual has been produced as part of the Central Australian Waste Management Project 2012/13 funded by NT Department of Health, coordinated by Local Government Association NT and delivered by Barkly, Central Desert and MacDonnell Regional Councils.

The CARLMM is specifically aimed at existing landfills located in communities of less than 1000 people, where a licence is presently not required.

*At the time of writing Licencing for landfills servicing communities of less than 1000 people was not required. Licencing may be introduced for community landfills servicing less than 1000 and will be subject to NT EPA regulations and relevant Territory planning approvals.

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Section 1

Construction and Specifications

1.1 Plant & Equipment

1.2 New Landfill Site

1.3 Upgrading Existing Landfill Site

1.4 Waste Drop off and Sorting

1.5 Landfill Pit Design and Operation

1.6 Above Ground Waste Cell Method

1.7 Asbestos Pit

1.8 Cardboard Burning Pit

1.9 Animal and Septic Pits

1.10 Medical Waste

Section 1 Construction and Specifications

1.1. Plant & equipment for landfill management

To operate a landfill you require suitable plant and equipment for daily running and site management. Daily tasks require a minimum level of plant and equipment to manage the tasks as set out in this Manual. All operators of plant should be suitably trained and or licenced on that item of plant. It is intended that all Council staff will receive training to operate various plant in conjunction with the principles out lined in the Manual. This will ensure the landfill site will remain a functional user friendly site. Landfill machinery in a community will be typically limited to;

- **Back hoe**
- **Front end loader**

Councils may also provide and share specialized plant across multiple communities for example; steel wheel compactor, bulldozer or grader

Backhoe



Front End Loader



Steel Wheel Compactor



Bulldozer



Rubbish collection and disposal plant will typically be one of the following;

- **Standard trailer**
- **Tipping trailer with no hydraulic bin lifter**
- **Purpose built rubbish collection trailer or tipper with hydraulic bin lifter**
- **Garbage compactor**



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For landfill site establishment and broad area clean up, the following machinery may be used;

- **Excavator**
- **Dozer**
- **Backhoe**
- **Tipper truck**
- **scraper**

Using under sized plant will damage the equipment, make the job harder and cost the Council time and money. Plan the plant equipment needs with appropriate managers before starting the task. This may require floating the right machine in for specific jobs. ***All Plant Equipment should be thoroughly checked by the operator before commencing work using the Council's Pre-start checklists. All issues should be reported to the Works Supervisor. The daily check sheet must be completed.***

Waste collection and proper disposal is a high priority Council function. A breakdown in machinery will disrupt service provision. Pre- plan back up options when primary options fail.

A combination of plant and equipment are needed to carry out all landfill requirements. Nominating primary equipment and properly servicing this plant is critical for the smooth running of any landfill site.

It is when a breakdown in plant occurs that a breakdown in service delivery follows.

Site Considerations

- Vehicle access is clearly defined and kept to marked areas
- Drop off bays and listed waste is located before vehicles reach the general household rubbish bay. This allows for users to unload items in an easy fashion.
- Metal pile is clear of the pit and contains only metal-no rubbish
- Car dump is located outside the main compound so people can salvage parts
- Burning pit is away from main pit



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Table 1

Site Management Machinery

Plant Item	Intended use
Backhoe	<ul style="list-style-type: none">○ moving waste from public drop off bays to landfill pit○ daily waste consolidation in pit○ applying daily cover fill○ minor daily compaction
Front end loader	<ul style="list-style-type: none">○ waste movement in pit○ applying cover fill application○ waste compaction○ Cover fill movement○ Landfill pit or cell creation
Steel wheel compactor and or Bulldozer	<ul style="list-style-type: none">○ Major waste consolidation○ Major waste compaction○ Landfill pit or cell creation

Table 2

Rubbish Collection and Disposal Plant

Plant Item	Intended use
Tipping Trailer	Outstation or Small community domestic(household) rubbish collection
Purpose built rubbish trailer or tipper with hydraulic lifter	Small community domestic (household) rubbish collection from wheelie bins
Garbage Compactor	Medium to large community domestic(household) rubbish collection from wheelie bins

Steel drums (especially 44 gallon drums) should not be used for regular waste collection. They are often burnt resulting in unhealthy ash and fumes that affect Council garbage collectors. Councils should adopt plastic wheelie bins and stands for all locations.

1.2 New landfill site

Selecting a new landfill site is necessary when it is no longer possible for waste management to be conducted at the existing site. The existing site can be reconfigured in many cases to accommodate further use if suitable. Only when this process has been exhausted should a new site be considered.

There are several key considerations when selecting a new site. Extensive work should be carried out to ensure all aspects are considered. The key document for this process is; ***EPA Guidelines for the Siting, Design and Management of Solid Waste Disposal Sites in the Northern Territory (2012)***.

Initial steps can be taken by staff within the community. Management staff can assist with the process. Planning must start well before the existing landfill is full. This should be part of a 5 year planning process for landfills.

Diagram 1. New Landfill Site Planning Steps



A new site cannot be built without the necessary site clearances and environmental considerations. The community should be consulted at the beginning of the process as local cultural knowledge will eliminate many sites in the early stages.

A summary of the steps is as follows:

1. New site proposed
2. Community consultation begins with Local Authority
3. Budget developed for construction
4. Local Authority signs off on new site
5. New site assessed using ***Guidelines for the Siting, Design and Management of Solid Waste Disposal Sites In the Northern Territory***
6. CLC site clearances sought for proposed site
7. EPA approval
8. Site prepared for use

Note-NTEPA approval is required for all landfill construction and is not dependant on size. Any disposal of listed waste on commercial fee for service basis requires a licence (Waste Management Pollution Control Act schedule 2.Part1)

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When seeking to relocate the existing landfill site or change the current boundaries of the site a **Sacred Site Clearance Certificate** will need to be applied for and issued.



Application for a CLC Sacred Site Clearance Certificate

Application forms are available from the CLC's permit section, ph.8951-6320, or on-line at www.clc.org.au.

Below is an example of a clearance application made for Yuendumu Landfill, to construct a new fenced compound and clear legacy rubbish.

Diagram2. Example CLC site image



The CLC process can be jointly undertaken by local community staff and the Director of Works/Council Service Delivery. During this process landowner consent should be sought for use in the EPA application.

Description of Proposed Works for the CLC Clearance Application

PART 2 PROPOSED WORK PROGRAM AREA AND WORKS COMPONENTS

Yuendumu landfill has been in its current location for several decades, 3.5km north-east of Yuendumu. It contains an active landfill area managed by the Council, and a large 'legacy waste' area. The active landfill area is fenced and is close to full. A new fenced area needs to be established. The legacy waste area (15 hectares) needs remediation, and will be done if resources and time permit, but the Council accepts no responsibility for waste deposited by entities prior to the formation of the Council in 2008.

Immediate works are the erection of a new fenced compound to the immediate south of the existing compound, and digging a new landfill pit within that. The fence will have a common side with the existing pit, the other three sides being 130m x 130m. See attached image. The pit will be approximately 70m long, 13m wide and 3m deep.

Ground disturbance will be 100% within the new fenced area to clear the site for vehicle movements and pit excavation, plus a firebreak around the perimeter, as per current compound. Any sacred trees or other specific objects can be retained and fenced off from disturbance.

A new 120m long access road will have to be cleared into the landfill gate, approx. 10m wide.

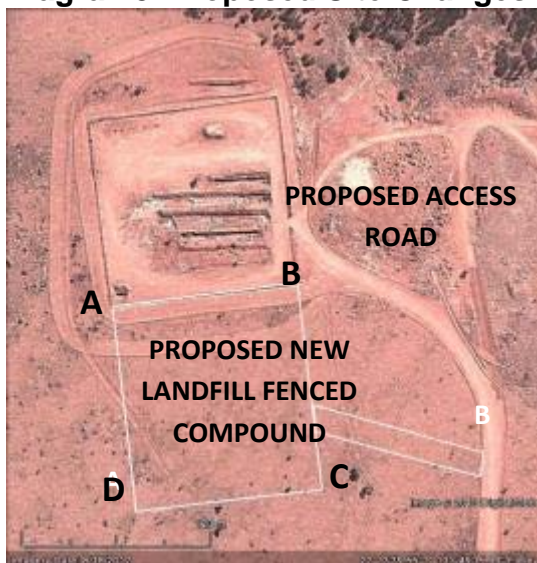
All works will be done by the Council's Yuendumu works team.

Works do not require an environmental impact assessment. The landfill services a population of less than 1,000 people, so does not need to be licensed.

The site is on the Yuendumu Aboriginal Land Trust.

Sacred sites clearance is sought over the entire disturbed landfill area, so that the Council can proceed with future clean up works without disturbing any sacred sites.

Diagram3. Proposed Site Changes CLC



GPS Coordinates:

Landfill fence

A	22deg 13min 39.9sec S 131deg 49min 07.7sec E
B	22deg 13min 39.4sec S 131deg 49min 11.9sec E
C	22deg 13min 43.8sec S 131deg 49min 12.5sec E
D	22deg 14min 44.3sec S 131deg 49min 08.2sec E

1.2. Upgrading existing landfill site

This section of the Manual is designed to assist field staff to identify the present condition of the landfill site and develop a plan to improve the current situation. In the majority of cases the landfill site on a community has a long history of use and misuse. The process of upgrading a site will need the commitment of all staff and community members to maintain a site which is:

- **functional for staff and the public**
- **a healthy work environment**
- **safe to all users**

A CLC Sacred Site Clearance Certificate will need to be issued for changes to existing boundaries or ground disturbances beyond the current landfill boundary.

In approaching the redevelopment of any site a basic checklist will help with the redesign of the site. Using a simple table in the **Landfill First Inspection** form will assist;

Table 3. Landfill First Assessment form extert

LANDFILL FIRST ASSESSMENT		
Condition Score		
1- Very Good, No work required 2 – Satisfactory -Scheduled work required 3 – Unsatisfactory- Immediate Work Required		
DESCRIPTION	SCORE	Condition Score Criteria
Entrance Road to landfill from Community		1-Clearly sign posted- side road turn offs blocked 2-Marked- few signs- side access roads open 3- Poorly marked- no signs-side roads open
Landfill Fence		1-Complete- gates in order-no work required-meets new site plan requirements 2-Partial- needs repairs, or addition to create separation bays and Council operational area 3-None-in disrepair-Installation required

Landfill Site Considerations

Public access areas should be designed to be as user friendly as possible. The site should have clearly defined and signposted disposal areas. Areas not intended for dumping should not be accessible to the public. Prohibiting public access to the main pit should be done via an internal fence with lockable gates.

Drop off Bays

Identifying recyclable materials and listed (prohibited) waste makes it easy for the public to keep these items out of the landfill pit. Give adequate area to each drop off bay and keep each contained. See diagram 6

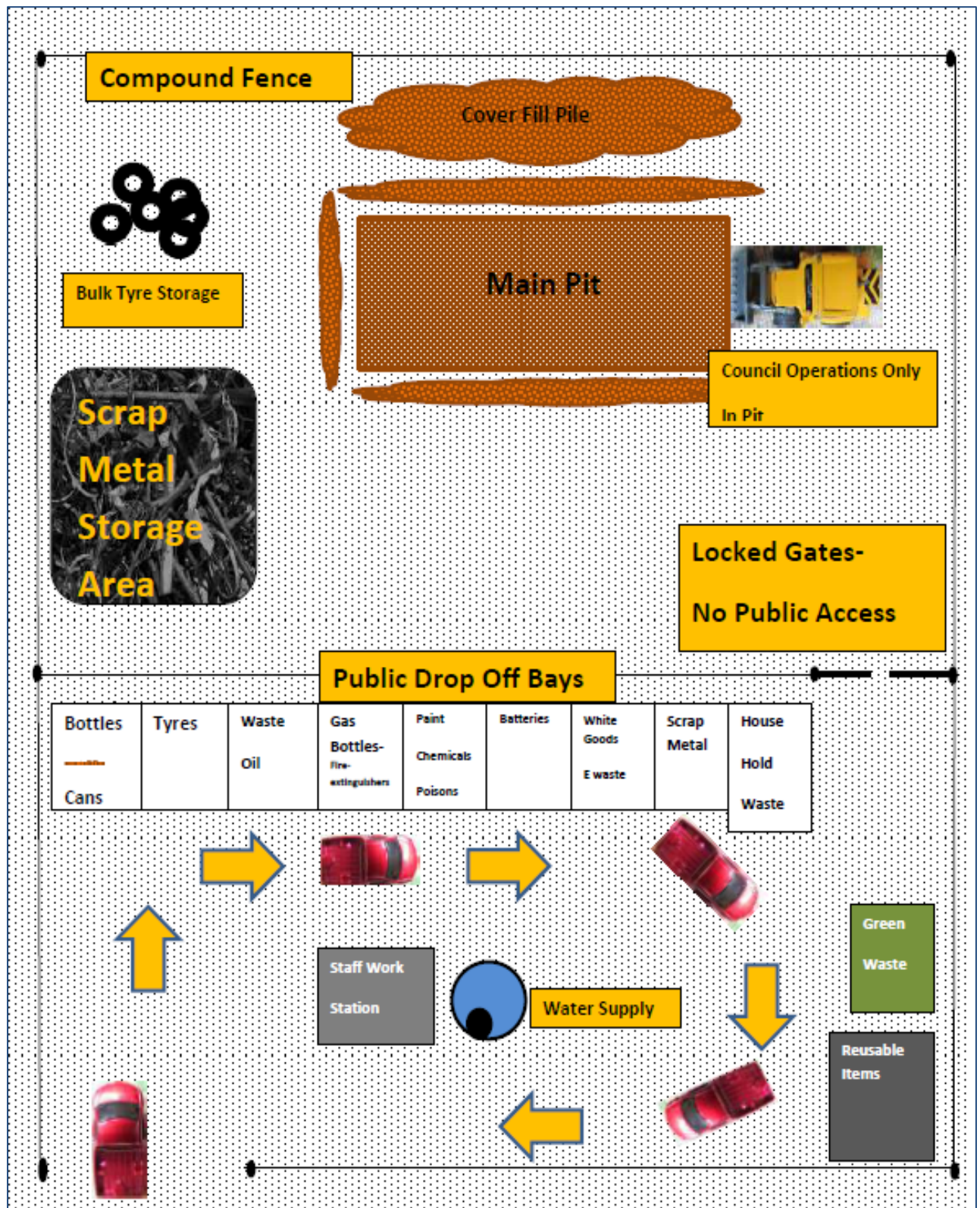
General Household Rubbish

This should be located immediately after the drop off bays. Use dirt bunds, concrete panels or other non-combustible materials to identify the area along with very clear signage. It should be large enough to back a trailer up to but not so large that it becomes too hard to manage the transfer of waste to the main pit. Note location on diagram 5

Scrap metal

Locate the scrap metal bay right next to the general rubbish bay. This makes it easier for Council workers to quickly separate metal that is in the general rubbish bay.

Diagram 4. Example Landfill Site Design



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Divide the site into two main areas:

- Public Access Area
- Council Operation Area

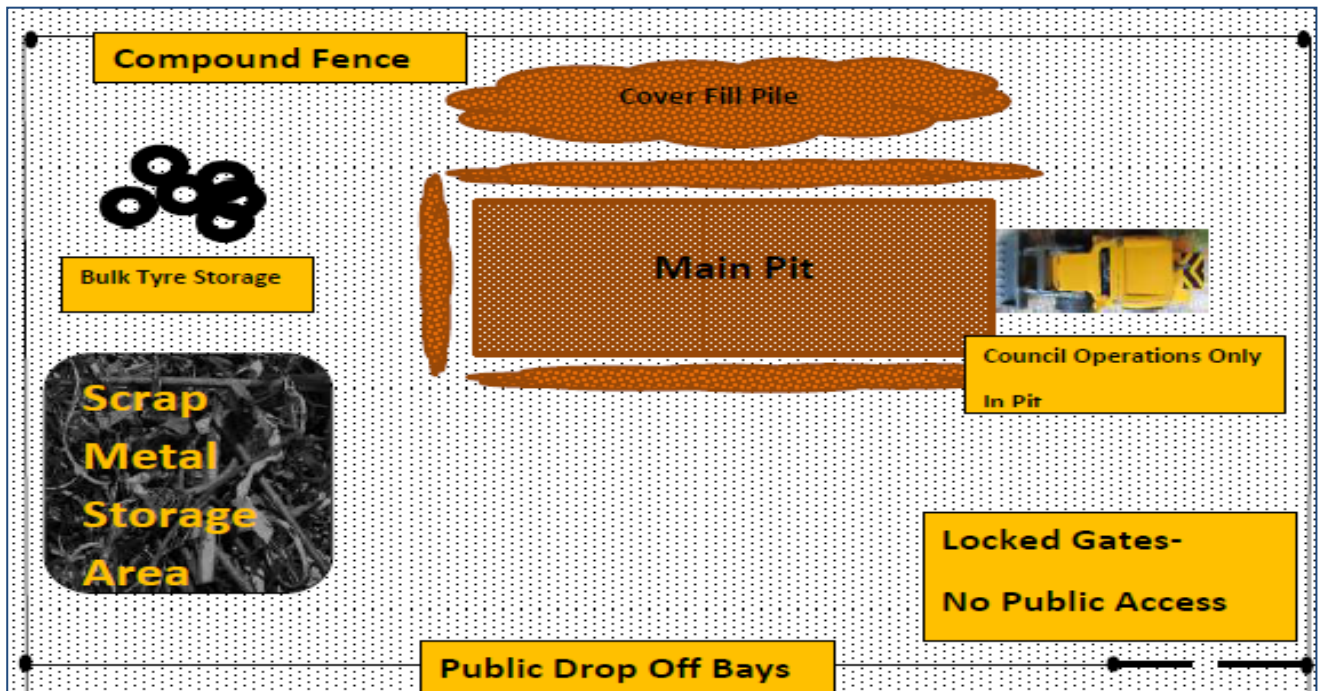
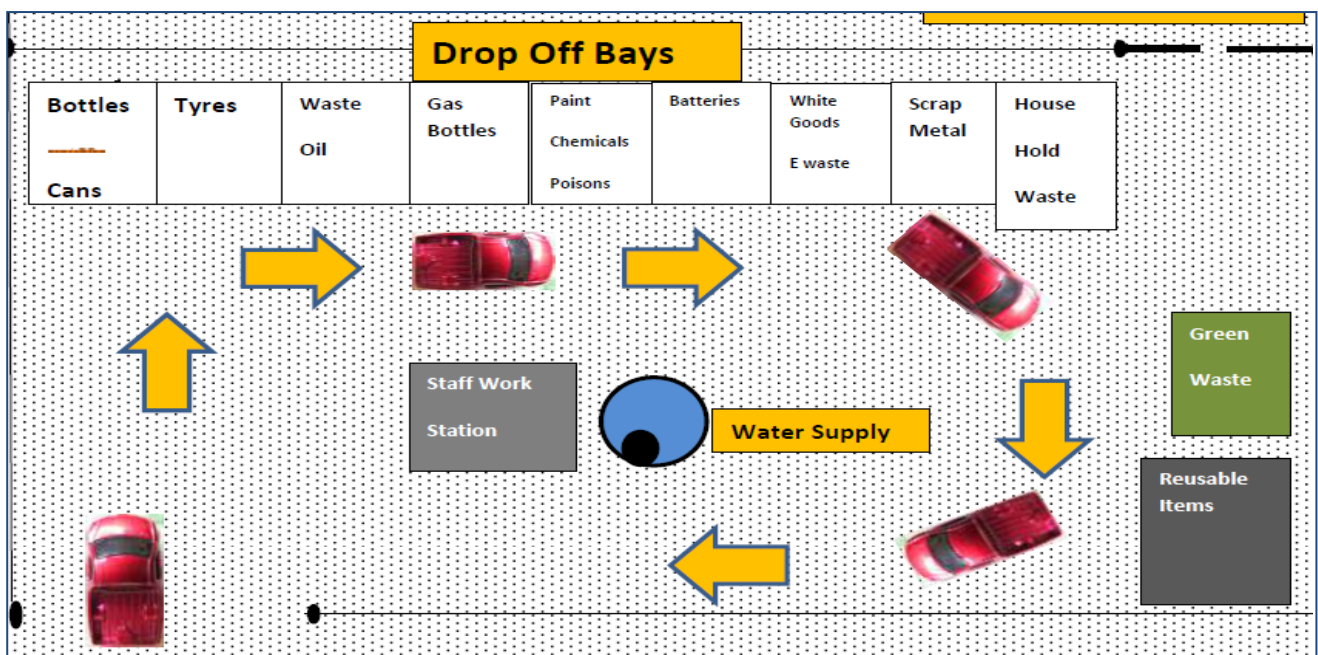


Diagram 5 Council Area only- no public access allowed

Public access should be limited to the drop off bay areas on the site. Council staff relocates items to the locked tip site.

Diagram 6 Public Access Areas



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Prioritising actions on site

A site visit is critical to identify the areas that require attention. Actions can be categorised into 3 areas:

- | | |
|---------------------------------------|------------------|
| ➤ High Priority Actions | Immediate |
| ➤ Medium Term Priority Actions | Planned |
| ➤ Long Term Priority Actions | Scheduled |

High Priority- urgent actions; possibly dangerous to the public and Council staff if left unattended. Examples are:

- ◆ Narrow deep trench with straight walls- prone to collapse
- ◆ Mixed waste in the trench- steel, tyres, medical waste
- ◆ Undefined dumping area
- ◆ No signage
- ◆ Public access to unfenced pits
- ◆ Uncovered asbestos

Medium Term Priority- items affecting the efficient use of the site and will continue to make the site difficult to use. Examples are:

- ◆ Poor site access
- ◆ No recycling or separation bays
- ◆ Storm water flow into pits
- ◆ Badly designed internal roads and traffic flow
- ◆ Random piles of mixed waste-mullock heaps within compound
- ◆ No compound fencing
- ◆ Compound gates not present or able to be closed

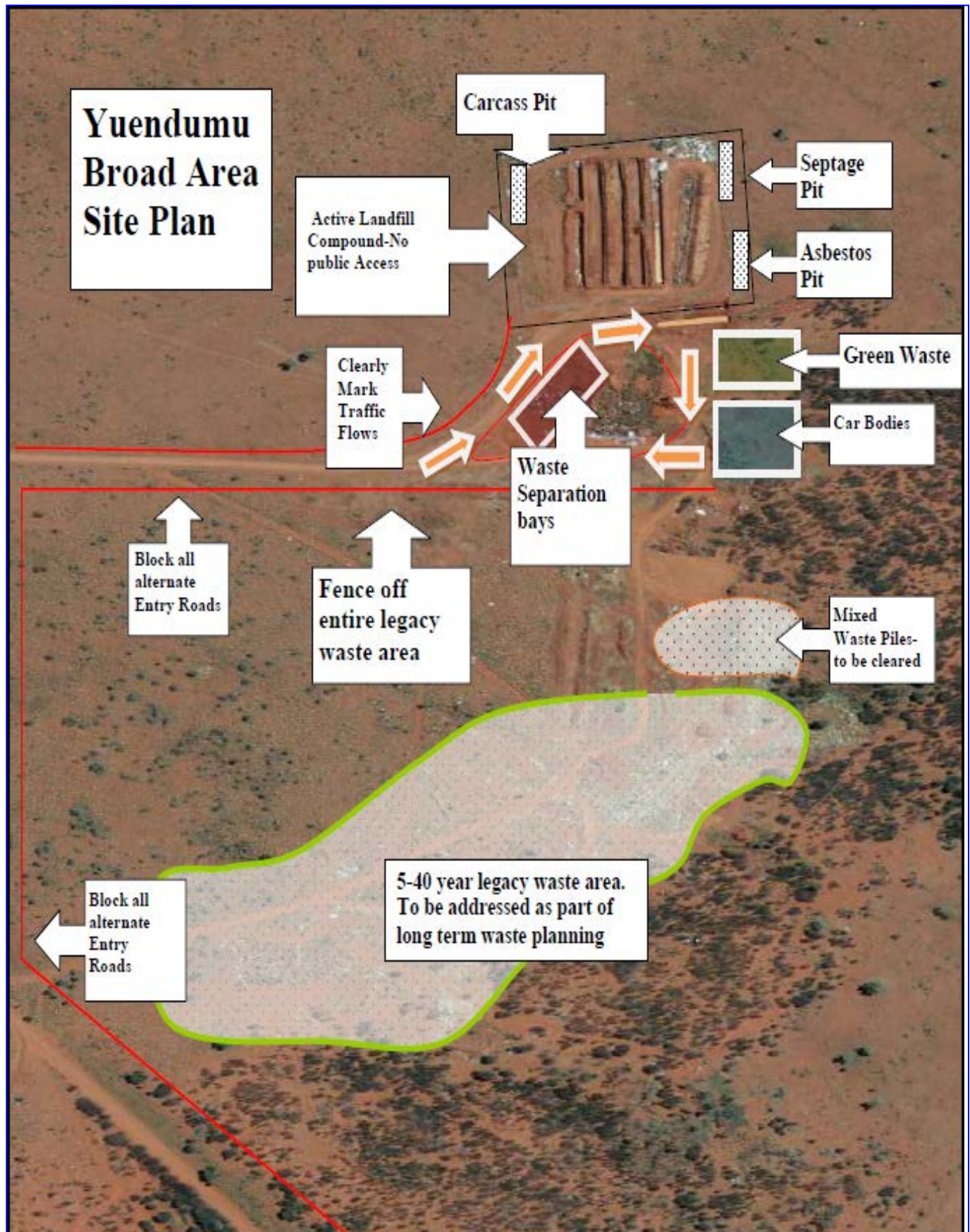
Long Term priority- Items that require attention but require budgeting and planning. Examples are:

- ◆ New compound fencing
- ◆ New trench installation
- ◆ Old trench sealing, capping and signposting
- ◆ Site clean-up of mixed waste piles in and around landfill
- ◆ Identifying old trenches and signposting
- ◆ Identifying past Asbestos dumps and making safe

Site Assessment Tools

1. Aerial photo of present site
2. Aerial photo of site over the past 10 and 5 years, from Google Earth
3. Community layout (SLAP) map
4. Landfill site audit- (available in form section)
5. Camera

Diagram 7. Aerial photo- Yuendumu Broad Area Site Plan



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Mark the present location and necessary site changes on the aerial photo:

<ul style="list-style-type: none">◆ Perimeter fence - include existing lengths of intact fencing and present gate location. Add required fence lengths and new gates if required◆ Entry road and any other existing/useful access points◆ Existing and finished pit location/s◆ Possible new pit locations◆ Recycling or separation bays◆ Mullock heaps-mixed waste◆ Car dump present and nominate a future site	<ul style="list-style-type: none">◆ Asbestos disposal compound and pit◆ Septic pits◆ Animal pits◆ Medical waste pits◆ Tyre storage area◆ E-waste storage area◆ Cardboard burning pit◆ Green waste and wood storage area◆ Scrap metal pile◆ Internal road ways
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Creating a Scope of Works

After the initial site inspection has been done, create a scope of works that addresses each aspect and assigns a timeline and person responsible for completion. The Scope of Works allows progress to be tracked at the site. It does not have to be complicated and can start as a basic outline of immediate work to be addressed.

Example Scope of Works:

Yuendumu Landfill Upgrade

Scope of Works

19 March 2013



Landfill pits

Place car bonnet "No metal; No tyres; No asbestos" at tipping face

Obtain 12 car bonnets - Trevor

Obtain 12 x spray cans paint - Geoff

Fill remaining top 300mm space of middle filled pit with compactor household waste. Place final cover of dirt.

Repair landfill perimeter fence. Straighten all bent posts as required.

Fencing pliers, wire, spare mesh fence for patching – Geoff (fencing from Yuen)

Burning Pit

Complete negotiations with stores and other cardboard generators for cardboard delivery to burning pit.

Commence burning, with fire trailer on-hand.

Animal Carcass Pit

Excavate animal carcass pit (at site of old burning pit). Place bund around for vehicle safety. Place car bonnet 'Animal bodies'.

Household rubbish dumping bay

Add 6' fencing along top of bunds to control blown litter

Place car bonnet "No metal; No tyres; No asbestos" at tipping face

Local fencing materials – Trevor

Tyres

Remove load of tyres to Alice Waste Disposals in Alice Springs (\$5 per tyre).

Take out tandem trailer and straps – Geoff

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Or is Trevor backloading anything that we can use? - Trevor

Ultimately would be best to locate a shipping container onsite to store and transport tyres (and ultimately electronic goods).

Legacy Waste

Complete removal of metal from Council legacy waste pile

Wet down and remove asbestos-laden soil from same pile. Bury in Asbestos pit.

Take asbestos handling kits - Geoff

Take our personal asbestos handling gear - Geoff

Ensure fire trailer available for wet down - Trevor

Pluck large tree trunks to separate pile at Green Waste site (DO NOT PUSH UP ONTO DIRT MOUND)

Use dozer to push up remaining dirt piles onto northern bund.

Erect car bonnet signs "No dumping here" and "Danger, possible asbestos".

Monitor closely for several months, cracking down and charging for any further dumping.

Erect Legacy Exclusion Fence and 3 x gates

Purchase 20 x 'Danger Asbestos' signs to hang on fence (Yuen and elsewhere) - Geoff

Green Waste

Move 'Green waste' sign closer to recycling bays.

Add some green waste from legacy waste area, as starter.

Move large tree trunks to here from legacy waste area.

Car Body Area

Pluck metal from new car body area

If necessary, cover puncture-risk areas with clean dirt.

Place a few car bodies in that area, including car body that is currently in bush next to Mt Dennison road turnoff.

Place 2 x car bonnet signs 'Car bodies' and 'Cars will be crushed and stacked after spare parts removed'.

Asbestos Pit

Clean out existing northern pit (outside fence) as 3m deep asbestos pit, with 1m bund at 1.5m depth.

Fence Asbestos pit area with same 6' mesh fenced as main area. 70m x 30m x 30m (130m total required). Plus gate.

Place car bonnet "Asbestos pit" at gate plus formal Asbestos signs.

Fire break

Ensure firebreak functional and clear around entire active landfill site

Rubbish on landfill access road

Finish removing general rubbish from new sacred site area opposite cemetery sign, and around 'Keep Yuendumu Beautiful' sign.

Finish removing visible metal and rubbish from road sides on main road to landfill.

Clean up metal and debris from car crushing area.

Place 4 x car bonnets with "No dumping here" on small side roads to landfill and near airport.

Metal & dirt piles in community

Pluck metal from inside community boundary

Remove mullock dirt piles from inside community

Asbestos in community

Wet down and remove asbestos pipes from dirt piles at west side of community

Hard Waste Trailers

Upgrade and register 3 x existing trailers. Construct cages for each.

Make sign 'Yard rubbish in here' with CDSC logo.

Place outside grubby yards.

Check if any mesh or RHS needed by Trevor's crew for cage – Trevor tell Geoff

Verge rocks

Tidy up verge rocks to re-establish vehicle control purpose.

Source additional rocks, paint white.

Provide 3 x large cans white paint - Geoff

1.4 Waste Sorting and Transfer

Effective waste sorting will ensure the efficient use of the landfill site. Traditionally pits were used for all items that had no separate areas to place them. This led to pits being filled quickly and with items that don't belong in the ground. The pit is predominately for domestic waste only-that is waste that comes from households. (Pit may contain mixed demolition and shop waste). The pit should not have the following items in it:

- ◆ metal
- ◆ green waste
- ◆ chemicals/paints
- ◆ tyres
- ◆ batteries
- ◆ animal parts or carcass
- ◆ medical waste
- ◆ E-waste
- ◆ Waste oil
- ◆ Gas bottles/fire extinguishers

All the above items need to have designated areas to keep them from going into the pit. Separation bays and specific waste areas need to be located away from the main pit. This will allow users to unload those items before reaching general the waste drop off area. Traffic flow is important to keep the site functioning. Bunting, bollards and internal wire fencing should be used to delineate waste areas.

Clear signage is very important

Key waste areas to be clearly identified at the site;

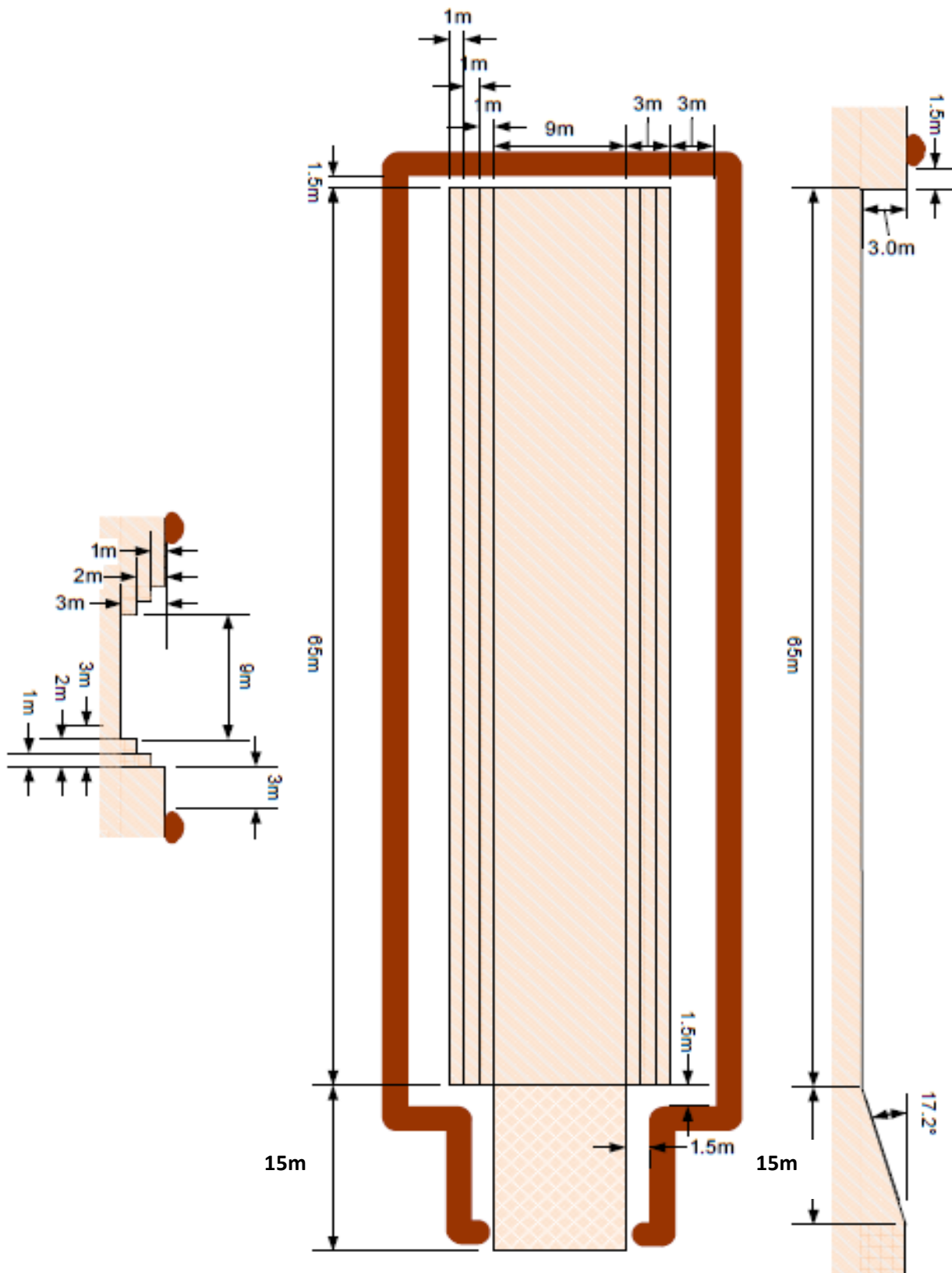
- ◆ **Main Pit**
- ◆ **General household rubbish bay**
- ◆ **Recycle and listed waste bays**
- ◆ **Cardboard burning pit-inside locked compound**
- ◆ **Animal carcass pit –inside the compound**
- ◆ **Medical waste**
- ◆ **Septage**
- ◆ **Asbestos**
- ◆ **Metal**
- ◆ **Mixed rubble (dirt, bricks, concrete)**
- ◆ **Clean fill (dirt only-contains no rubbish)**

If there is already a full fence around the landfill compound, and enough space inside the compound, fence off a public drop off area with turn around area inside the main gate 1100mm high ring lock fencing is adequate with barbed wire on top. Council staff then accesses the landfill pit through a locked gate.

If the site is limited in space, the public drop off area can be located outside the main compound. The car body area is also best located outside the main compound, as traditionally these areas are visited often and viewed as a community resource.

1.5 Landfill Pit Design and Operation

Diagram 8. Trench Design for Central Australian Communities



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The trench design meets current trenching and WHS standards and allows Council staff to operate the trench in a manner consistent with the principles outlined in the manual. Using this design will maximise trench life and will enable the effective development of waste cells and compaction efficiencies.

The stepped sided trench with a floor width of 9m allows council staff to safely conduct work in the trench and carry out the four 'C' s of landfill management. They are;

1) Consolidate 2) Compact 3) Cover 4) Cap

*Detailed in section 2 pg. 50-51

Smaller scale trenches can be used in sites with spatial constraints.

The use of straight walled trenches is no longer permissible in any new trench with walls higher than 1.5m.



Large Trench as per Manual specification

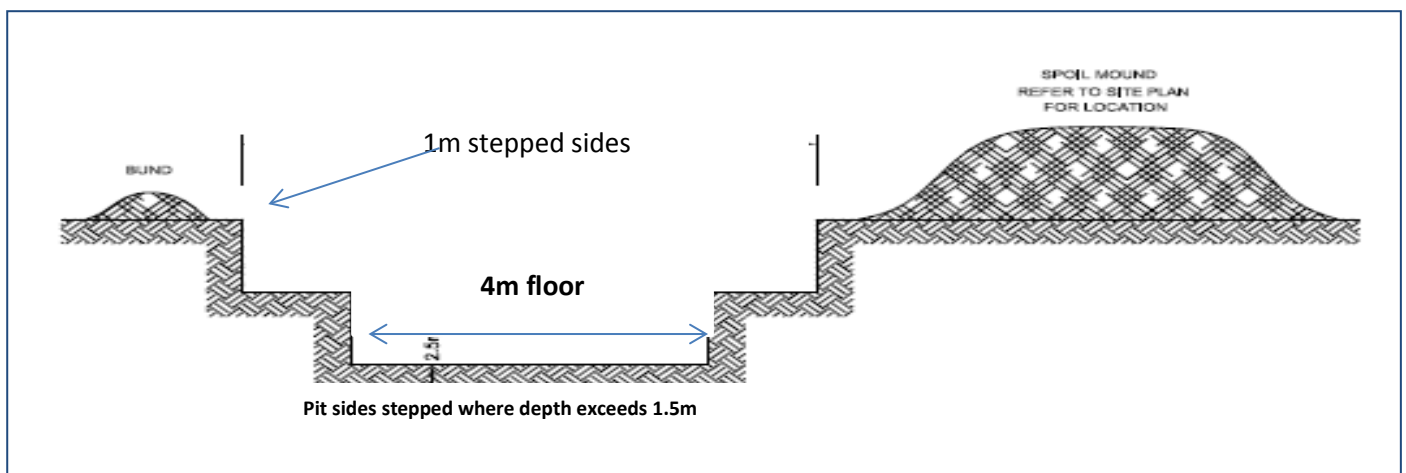


This pit design is recommended for communities with a population of more than 400 people or around 40 homes.

Smaller communities, those with a population less than 400 people, can adopt a similar design but reduce the overall length. This will allow for correct operating procedures to be maintained.

Outstations-Larger outstations can modify the design to suit waste needs. A recommended variation on the design is shown below.

Diagram 9 End View Small Community Trench



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Pit Life

The Life span of the new pit design is yet to be tested. Designs should aim for minimum 5yrs life, given that mobilisation costs for excavation plant are often a large component, and it is a major logistical project for most remote locations. Pit life is greatly increased by excluding all recyclables and listed wastes.



Transform the site from this...



to this

General Household Rubbish Bay

- ◆ Council staff should clear this bay regularly and on a daily basis in larger communities.
- ◆ Listed wastes should be extracted by staff before the general rubbish is moved to the main pit.
- ◆ Use backhoe or loader to move waste to main pit
- ◆ Remove items that may cause damage to equipment during any stage of the process- example steel posts

Waste can be easily transported to the main pit by council staff



Upgrading an old pit

Straight walled pits have inherent hazards. Councils' are phasing out this design as new pits are installed. The construction of straight walled trenches is no longer permissible in any new trench installation.

Minimum retrofitted safety measures for existing pits should include:

- 1 Excluding public access - fencing and locked gate
- 2 Minimum 500mm earth bund around top of pit, 1.5m from edge
- 3 Wire fencing or drums outside the earth bund
- 4 Banning tipping of rubbish from top of walls
- 5 All rubbish to be tipped at ramped end of pit

Training Staff to work according to WHS and employing management practices outlined in the CARLMM is vital to improving any existing site.

The on-site practices employed will determine the efficiency and longevity of the pit. It is important to develop a routine for land fill management.

Recommended Plant use and frequency table

Table 4

Plant Item	Intended use	Frequency Large Communities	Frequency Small Communities
Backhoe	<ul style="list-style-type: none">○ Depositing or pushing up waste○ applying cover fill○ Minor compaction	Daily	Min 2x weekly
Front end loader	<ul style="list-style-type: none">○ applying cover fill○ Waste compaction○ Mixing fill with waste○ Pit or Waste cell maintenance○ Pit excavation	Daily	3 Monthly community rotation
Steel wheel compactor Bull Dozer	<ul style="list-style-type: none">○ Major waste movements○ Major waste compaction○ Pit Excavation or Waste cell creation	3 Monthly community rotation or as required	6 Monthly community rotation

Stepped sides in new pit installation



Stepped sides are the safest method of new trench installation. This type of pit is to be used in Central Australian Remote Communities.

Approximately 20% of excavated spoil should be stockpiled next to the pit for future cover fill and capping purposes.

The remaining excavated dirt from a new trench can be used to;

- ◆ Create storm water exclusion bunds around the landfill compound or community
- ◆ Backfill depressions around landfill or community
- ◆ Cover old legacy waste plies
- ◆ Correctly cap old pits within the site
- ◆ Or be creative and plan a BMX track or other community uses.

A large tipper truck or trailers are required to move this volume of dirt.

Changing current practices

The landfill site should be designed to be as user friendly as possible. The site should have clearly defined and signposted separation bays and disposal areas.

Areas not intended for dumping should not be accessible.

This will often be the biggest step for improving the site.

User practices will not change if the site is not organised and kept tidy.

1.6 Above Ground Waste Cell

The above ground waste disposal method can be used as an alternative in locations where trenches are difficult to construct or are prone to flooding; for example in sandy soils or in high rainfall areas. They can also be used above capped pits if space is tight.

The method involves creating waste cells at ground level in a defined waste disposal bay. The bay is bordered by earthen walls (dirt mounds) approximately 2m high. The cells move toward the front of the bay.

Diagram10. Above Ground Waste Disposal Method



More information on this method can be found in the ISWA-Landfill Operating Guidelines

1.7 Asbestos pit

Asbestos identification, management and training should be provided to all Council field staff. Asbestos can be very dangerous if not handled correctly. See Section 2.5 of this Manual for further information. ***No staff should handle asbestos unless trained to do so.***

Diagram 11

Asbestos Pit Design

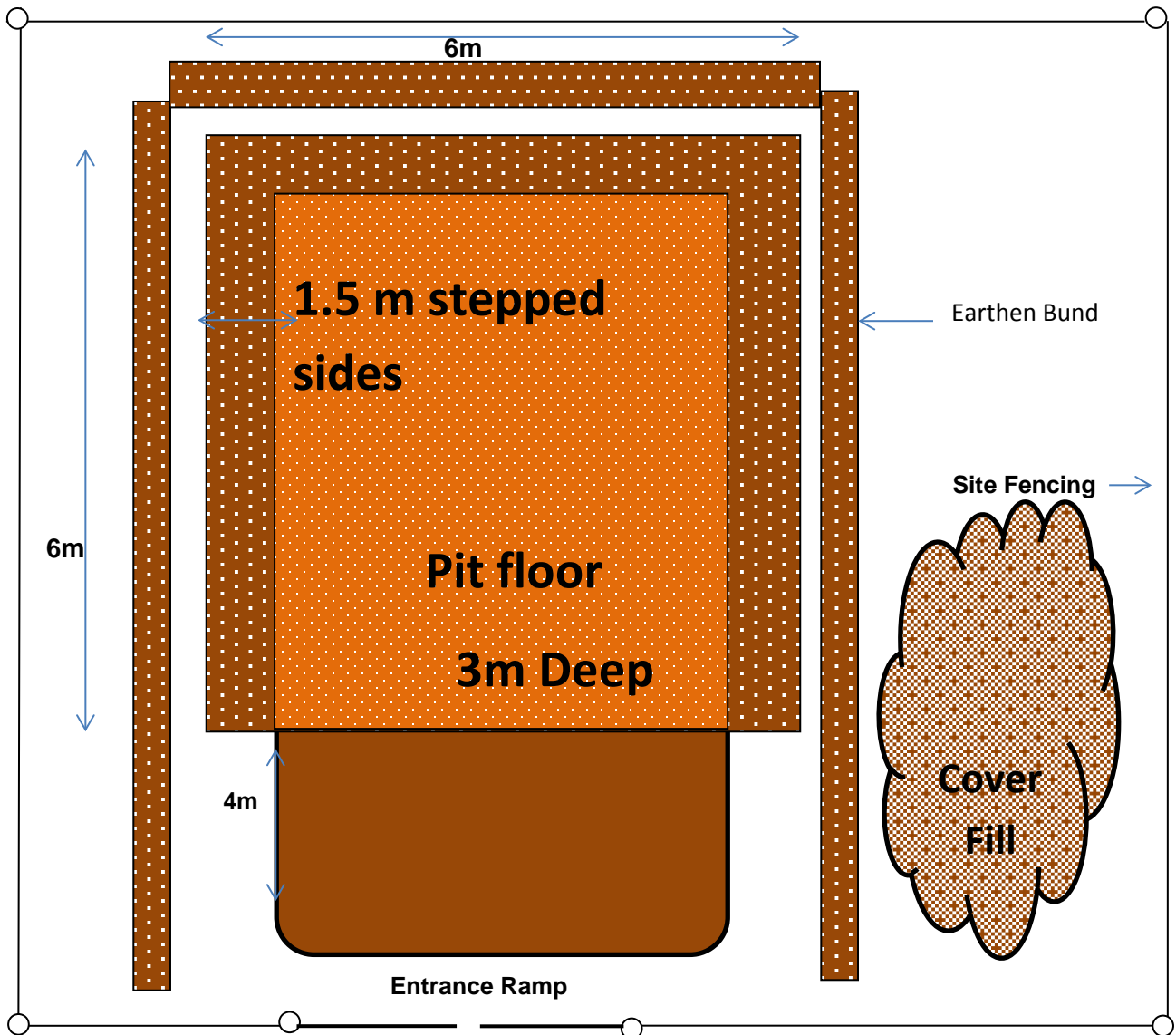
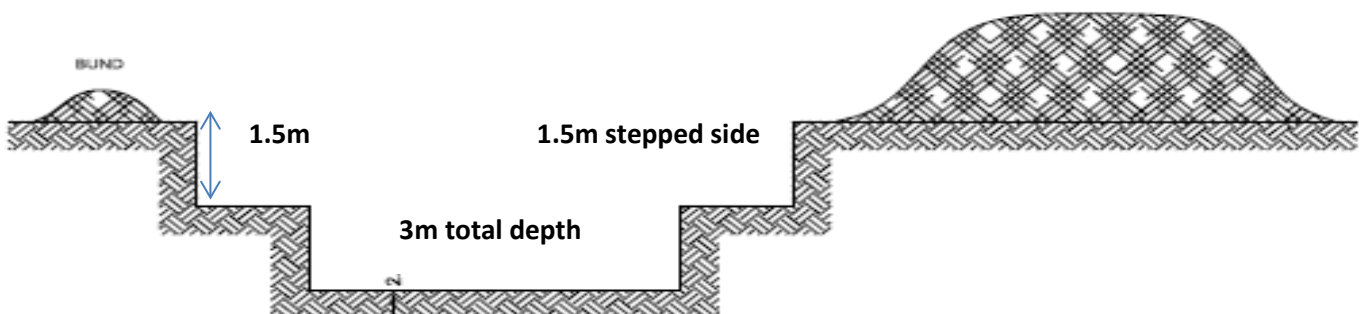


Diagram 12

End View Asbestos Trench



Primary Design Considerations

- 1 Located within main locked compound
- 2 Maintain a community asbestos register and a copy in head office
- 3 Each layer of asbestos must have min. 1m cover of dirt –a 3m pit can hold 2 layers of asbestos
- 4 Stepped side walls and entry ramp for safety
- 5 1.8m chain mesh perimeter fence and locked gate. Clearly marked “**DANGER ASBESTOS AREA**” signage in place

Temporary Asbestos Storage Site



Councils can apply to the NT Environment Protection Authority for an **Asbestos Disposal Licence**. Central Desert Regional Council was granted a licence at the Yuendumu Landfill site in 2013

Asbestos is often found lying on open ground around communities



1.8 Cardboard Burning Pit

This is primarily for store cardboard, to reduce the volume of waste in the pit

Diagram 13 Burning Pit Design

Length 5m	Width 3m	Depth 2m
-----------	----------	----------

BURNING PIT DESIGN

PLAN

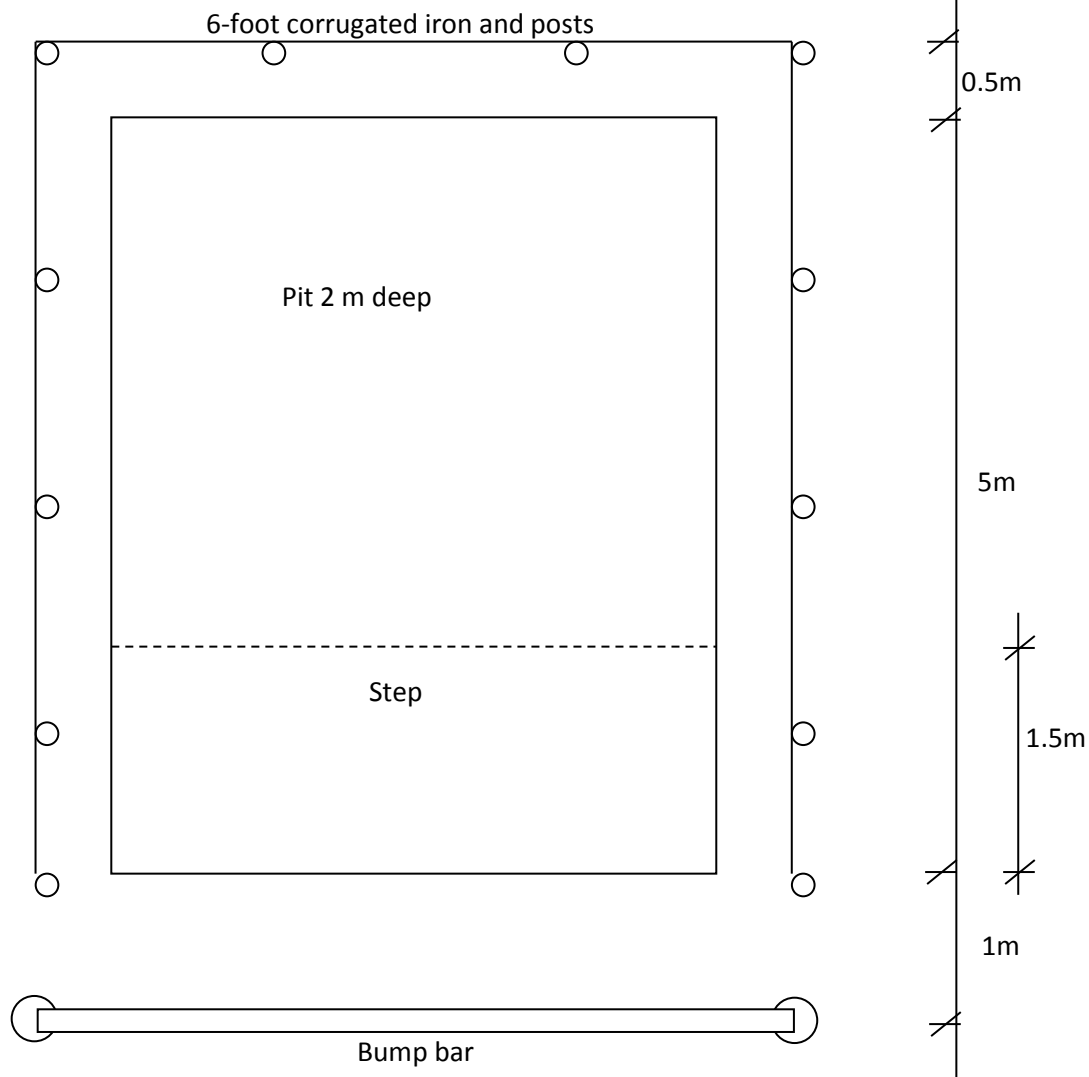
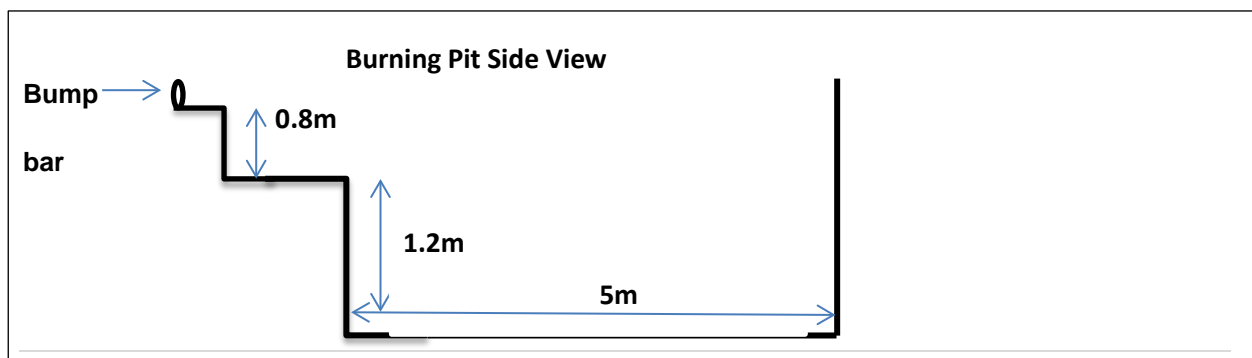


Diagram 14

End view burning pit



Example Cardboard Burning Pit



Before establishing a Cardboard burn pit (primarily for store cardboard) a Permit to Burn must be obtained from Bushfires N.T.

Operational Burning Pit



1.9 Animal and septic pits

These must be located within the fenced landfill compound.

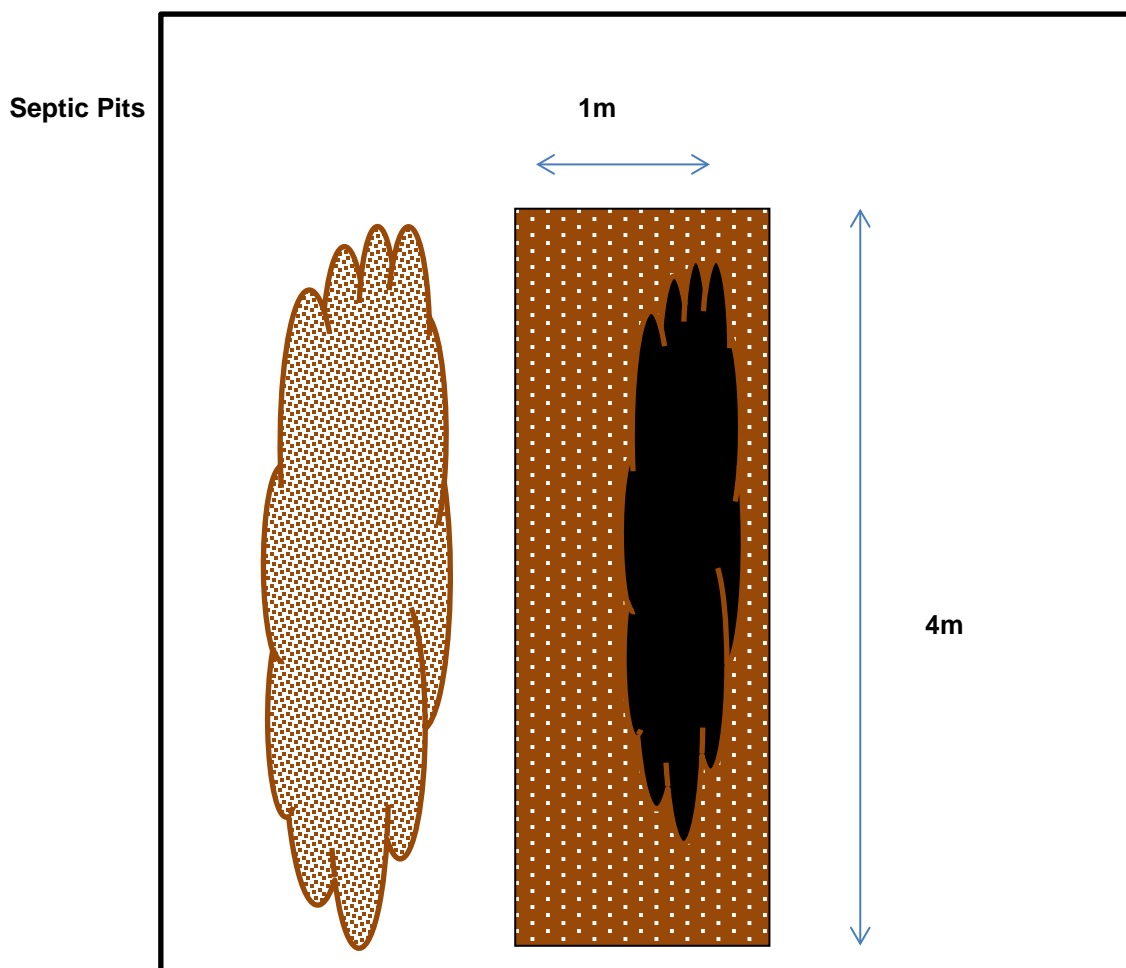
Pits should not be located outside main compound due to;

- I. health risks from effluent, and
- II. some drugs used to euthanize dogs remain dangerous for some time

Diagram 15

Septic Pit Design

Length 4m	Width 1m	Depth 2m	Access ramp NA
-----------	----------	----------	----------------



Septic pits are generally single use. They must be covered immediately after used

Recommended dimensions are 4m long, 1m wide and 2m deep to hold 4000 litres of effluent from 1 septic tank, with 1m of cover on top.

SETBACK REQUIREMENTS

The designated trench is to comply with the following setback requirements:

- 1000 metres minimum from a dam, well or bore, reservoir, public or domestic water supply
- 500 metres minimum from a stream or water course

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- 250 metres minimum from a growing edible vegetable or flowering fruit tree.

Notwithstanding these setbacks, it is recognised that they may not be practicable in all situations and so should be discussed with Environmental Health

DESIGNATED TRENCH REQUIREMENTS

The trench(s) shall:

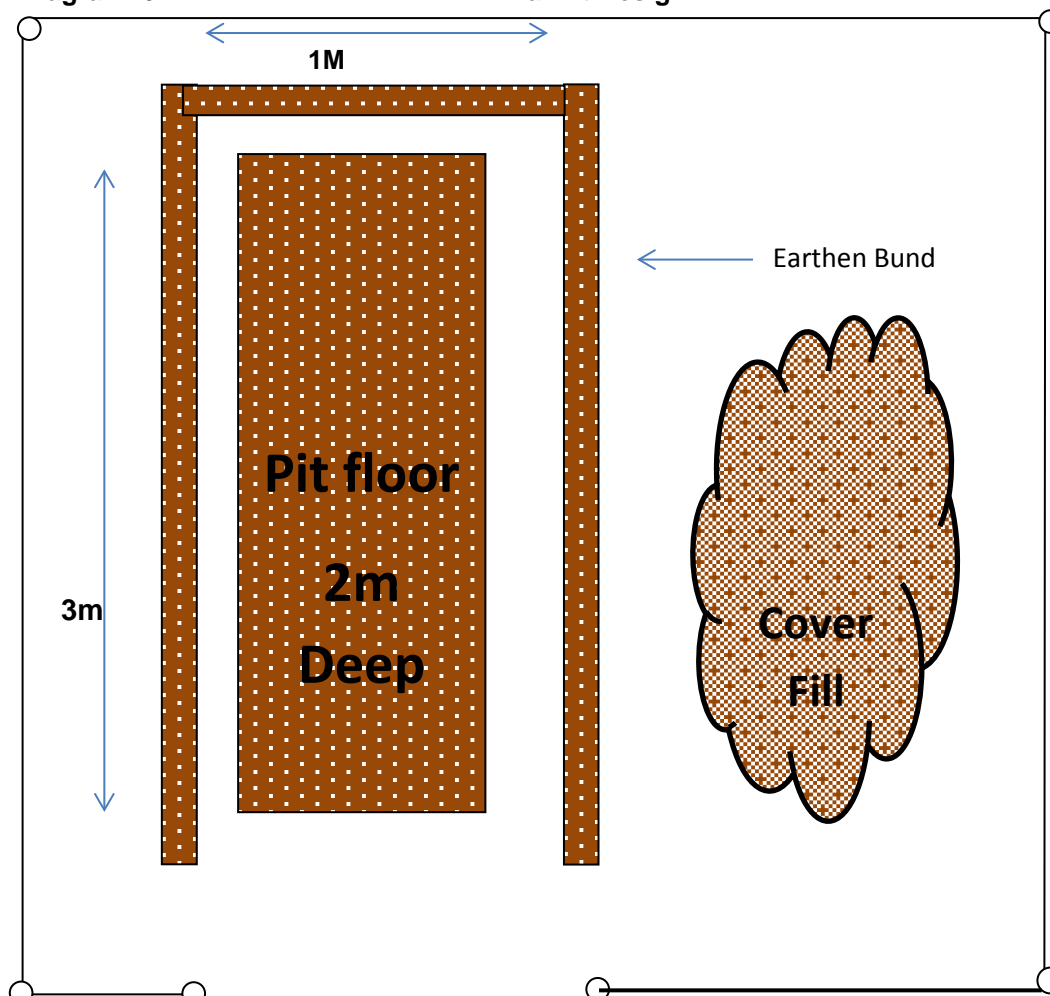
- be of sufficient volume to contain the amount of septage requiring disposal
- be located so as to minimise access by humans and stock
- not cause a public health nuisance, mosquito breeding, etc.
- be immediately covered with a minimum of 150 millimetres soil
- If in a landfill site, have a setback distance of at least 6 metres from a landfill trench or adjacent septage trenches.

Animal Pit Design

Length 3m	Width 1m	Depth 2m
-----------	----------	----------

Diagram16

Animal Pit Design



It is recommended that several pits be pre dug in preparation for unexpected deaths. For dogs and other small animals excavate 600mm auger holes 2m deep. Surround with portable panel fencing or similar

1.10 Medical waste pits

At the time of writing this Manual, there was no consensus from NT Health Dept. as to the type of medical waste that can be disposed of in local landfills or how it should be handled.

Contact Local Environmental Health Officers for advice.

Section Notes

Section 2

Operation & disposal/recycling

2.1 Public Access Area

2.2 Landfill Site

2.3 Active Landfill Pit

2.4 Listed Hazardous Wastes

2.5 Asbestos Identification and Management

2.6 Cardboard Burning Pit

2.7 Animal & septic waste pits

2.8 Medical Waste Pit



Section 2 Operation & disposal / recycling

2.1 Public Access Area

Recycling and Reuse

Recycling is the term given to items collected at the landfill site or community depot for transport to a regional centre. Recycled items are generally broken down and re-manufactured as part of the recycling process.

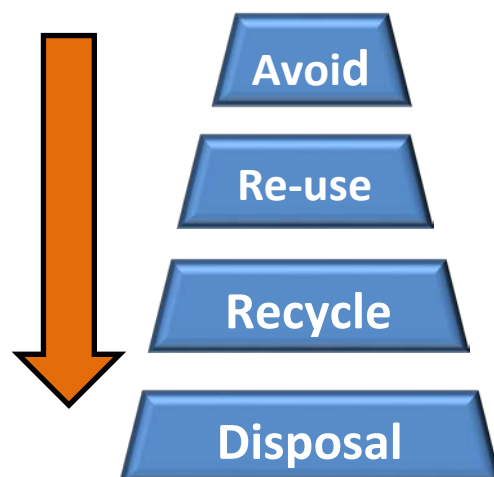
- Glass bottles
- Aluminium cans
- P.E.T plastic bottles
- tyres

Re-use is the term used to define items that are separated to be used again as they are. The items are generally put to use again in the community.

- Lengths of timber
- Straight steel
- Furniture
- Car parts

Diagram 17 Waste Reduction Pyramid

The figure below demonstrates how to approach reducing what goes into landfill site.



✓ ***Disposal is the last resort for waste***

Remote Councils have to be realistic about the items they decide to recycle. Distance can often mean that items readily recycled in urban councils may not be economically viable to transport to regional centres for recycling.

Public Drop off bay

This area is a defined area designated for public use. It allows the public to drop domestic waste on a defined pad and not in the pit. This method gives Council staff the opportunity to further sort the waste and make sure nothing but domestic waste enters the pit. Council staff then transfer sorted waste to the main pit.

At the site it is critical to keep the following items working well:

- ◆ Keep all areas neat and tidy- it might be a rubbish dump, but it is a work place and needs to be a safe and healthy work environment
- ◆ Have clear directional signage for traffic flow to the site and within the compound
- ◆ Fence the public access areas so vehicles cannot stray into non- public areas
- ◆ Regularly clear items from drop off bays to reduce clutter and minimise fire risk
- ◆ Leave a few example of each item in each bay to encourage drop off in the right areas



Drop off areas located before main pit



Scrap Metal

Locate a scrap separation bay near the general household rubbish bay. This will give users the opportunity to place any metal items in the bay.

Council staff then moves items to the long term metal storage area inside the main compound.

- ◆ Demarcate a large area in the locked compound for scrap metals.
- ◆ Plan for a five year storage period of metals on site
- ◆ Remove all non-metal items from the area as they appear
- ◆ Push up remaining metal regularly to minimise the pile area
- ◆ Separate non-ferrous metals (copper, brass, aluminium) as they are high value scrap metal. It is best to store these in a secure area as they will be stolen. (A shipping container can be used for sorted and bailed non-ferrous metal)

Scrap Metal Area large enough for 5 year storage



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White Goods- Fridges, washing machines, air-cons, stoves, microwaves

These items have scrap value only and should be combined with the main scrap metal pile.

- ◆ Fridges and air-cons should be stored in an accessible area so than can be de-gassed if this is a council priority. De-gassing does not mean puncturing the unit to release gas. It is done by arranging a contractor to come on site and capture the gas. This may be a yearly cyclical visit.



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E-waste- T.V's, dvd players, radio's, computers* note –E-waste does not include cooking appliances

A national recycling market is emerging for these items so separation is essential.

- ◆ Collect and store in a separate pile for potential transport to regional centre
- ◆ A shipping container can be used but is not essential



E-waste being processed



Paints, Chemicals and Poisons

Do not handle poisons if you do not know what they are. Obtain a Material Safety Data Sheet for the product before handling.

- ◆ Relocate to a secure compound at the community for transport to regional centre for correct disposal
- ◆ Ensure correct handling and transport procedures are followed and the Material Data Safety Sheet is read before attempting to move



Gas Bottles and fire extinguishers

These items are highly dangerous if burnt. Store in a safe location away from any potential fire risks.

- ◆ These do not go into the scrap pile, they can explode if compressed, punctured or burnt
- ◆ Relocate to a secure compound at the community for transport to regional centre for correct disposal



Waste Oils

Generally do not accept waste engine oil/cooking oils from mechanical shops or the store. They should have their own storage and transport options for disposal.

- ◆ Transfer to a dedicated plastic drum on site:
 1. One marked engine oils
 2. The other marked cooking oils and fats
- ◆ Place drums on a pallet for handling purposes and remove to Council depot when full
- ◆ Waste oils can be back loaded to regional centre when full



Tyres

Tyres do not belong in the landfill pit. They take up space, do not compact and work their way to the surface over time. They are also hazardous when burnt.

- ◆ Tyres with rims should be stored separately. Aluminium rims have high scrap value.
- ◆ Rims must be removed before tyre recycler's will accept tyres
- ◆ Tyres in good condition can be re-used around the community for traffic control purposes or as flood mitigation barriers
- ◆ Stock pile tyres in a safe area of the locked landfill site away from any fire risks.
- ◆ Transport tyres to a regional centre for remanufacturing or disposal options

*See section 7-forms for Tyre Poster





Tyres off to regional centre

Bottles and cans

As at 2013 there are no known community stores in the Central Australian region that are paying 10c per container and returning them to regional centres for recycling.

- ◆ Collection and separation is advised for transport to regional centres as backloads
- ◆ Local options should be investigated and stores to encourage providing collection and transporting options should be sought.

Bailed P.E.T bottles can be stored until a viable backload option is sourced



Tip Shop Area

An area should be set aside for community access to reusable items. This will allow salvaging of valued items and keep people from entering the pit to retrieve goods. This area is for items that have community re-use potential only.



Items might include;

- ◆ Lengths of steel or wood
- ◆ Toys
- ◆ Bikes
- ◆ Corrugated iron

This area must be kept safe and tidy due to unrestricted public access. Items that are not being taken for re-use should be moved to the appropriate disposal area

Do not allow the site to degrade with clutter.



2.2 Landfill Site

The effective management of the site will increase its usability and prolong its life span. Council staff will need to address each area on a regular basis to ensure that only the items signposted for that area are located there. Any item that does not belong in that designated area should be immediately removed.

Like items attract. If someone dumps household rubbish in a recycling bay then someone else will do the same. Remove items to their correct area immediately when they are seen.

Key Person-Landfill leading hand

Appointing a key person or Landfill Leading Hand within existing Council staff is an important step in keeping the site operating well. This person will become the eyes and ears of the site and assist others to become “landfill friendly”. The Landfill Leading Hand will be responsible for making sure the site is managed in accordance with the key principles in this document. They will be responsible for the completion of the **Weekly Landfill inspection report** and carrying out associated tasks.

Responsibilities of community based staff:

1. SSM- Monthly landfill audit and report
2. Team leader- Weekly Report
3. Field Officers- daily visual inspections, tidy up and report issues to Team Leader

Weekly Landfill Inspection Report

The landfill inspection report has been developed to assist in identifying and monitoring onsite issues at the landfill. The intended user is the Works Supervisor or Landfill Leading Hand in conjunction with Works staff. Works staff should be introduced and trained in the use of the report. The Landfill inspection report is a weekly report that assists in effective service delivery at site.

Table 7 Example section taken from landfill inspection report.

*Complete form located in section 7

Tick and Initial Inspection days						
Week 1		Mon	Tue	Wed	Thur	Fri
1) Access Road -Clear of Rubbish						
2) Fencing- Intact-no holes & gates working						
3) Pit Condition- Only domestic waste, cover fill on						
4) Separation Bays- Tidy, sorted, only listed items						
5) Signs and markers-All in place						
6) Car Area- Cars in area, boots and bonnets off-safe						
7) Scrap Metal-Pile consolidated, safe						
8) Waste compacted and covered						

By completing the Landfill Inspection Report staff will have a work list of tasks that must be attended to at the next visit to the landfill site.

2.3 Active landfill pit

The landfill pit is a limited and expensive resource. Keeping the pit functioning well is essential to overall landfill management.

Keep the pit under control

The pit should contain only household domestic rubbish and clean cover fill. All other materials should be excluded by effective separation. This will ensure the pit has the longest life span possible, is environmentally clean and will not damage plant and equipment.

Burning the landfill pit is no longer an acceptable practice in Central Australia. It is explicitly banned by Work Safe and the Department of Health due to the risk to staff and the public by exploding gas bottles, toxic fumes, ash and potential personal injury risk of burns. Only cardboard burning is allowed in designated areas with appropriate permit

Managing the pit will greatly increase its life span and eliminate the desire to burn

Things that go into the pit after separation:

- ✓ **Household Domestic waste**
- ✓ **Furniture**
- ✓ **Mixed demolition waste (excluding metal)**
- ✓ **Plastics**



Things that don't go in the pit:

- ❖ Metal
- ❖ Car parts
- ❖ Timber
- ❖ Listed/hazardous wastes
- ❖ Tyres
- ❖ White goods
- ❖ Cardboard
- ❖ Electronic items (E-waste)
- ❖ Clean construction waste
- ❖ Asbestos

The pit should be inspected daily for items that don't belong. Remove immediately as it will attract like items.



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This pit has been under managed. Note the steel, tyres and white goods present in the pit. This was all removed to ground level and capped with clean fill.



This pit is too far gone. Removing the steel is no longer a viable option. Steel was crushed with the excavator bucket and capped with clean dirt



A new pit being excavated at Yuendumu



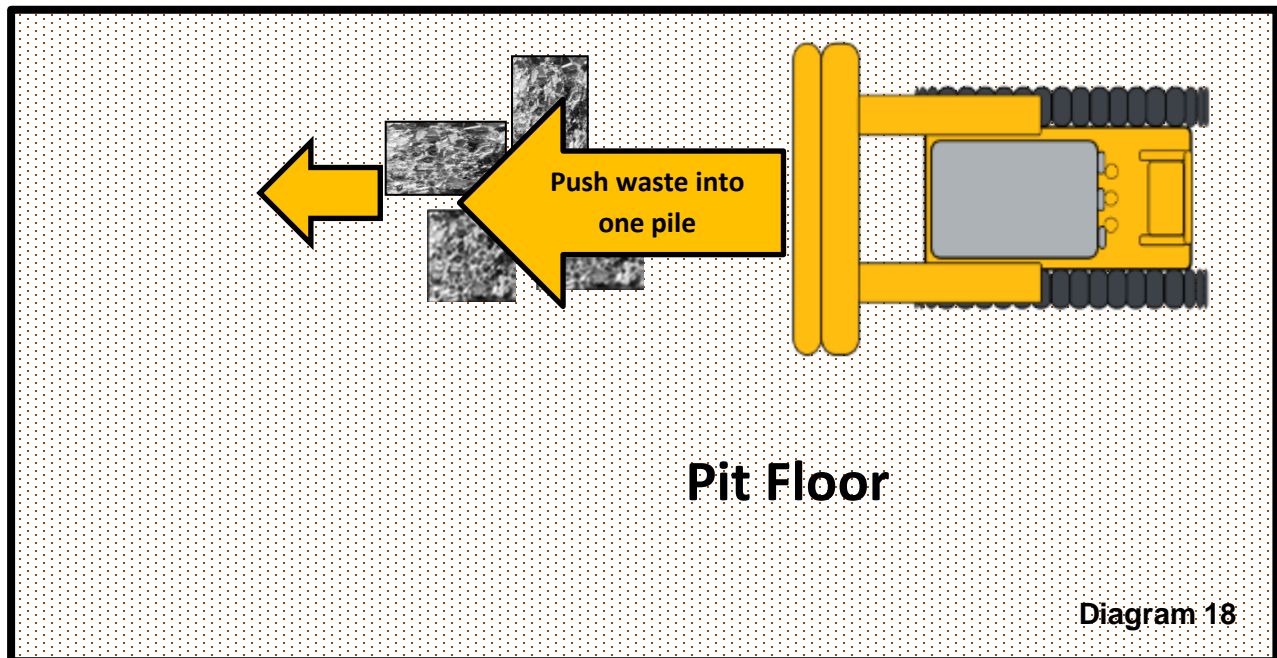
Waste Cell Methodology

Employing a waste cell method at the pit will greatly increase its lifespan and usability. Waste cells are the term given to a “unit” of waste in the landfill pit. They are small manageable sections of waste that ultimately join together to form a layer in the pit. A pit is made up of multiple cells. A cell is approximately 3m x3m and 1m high.

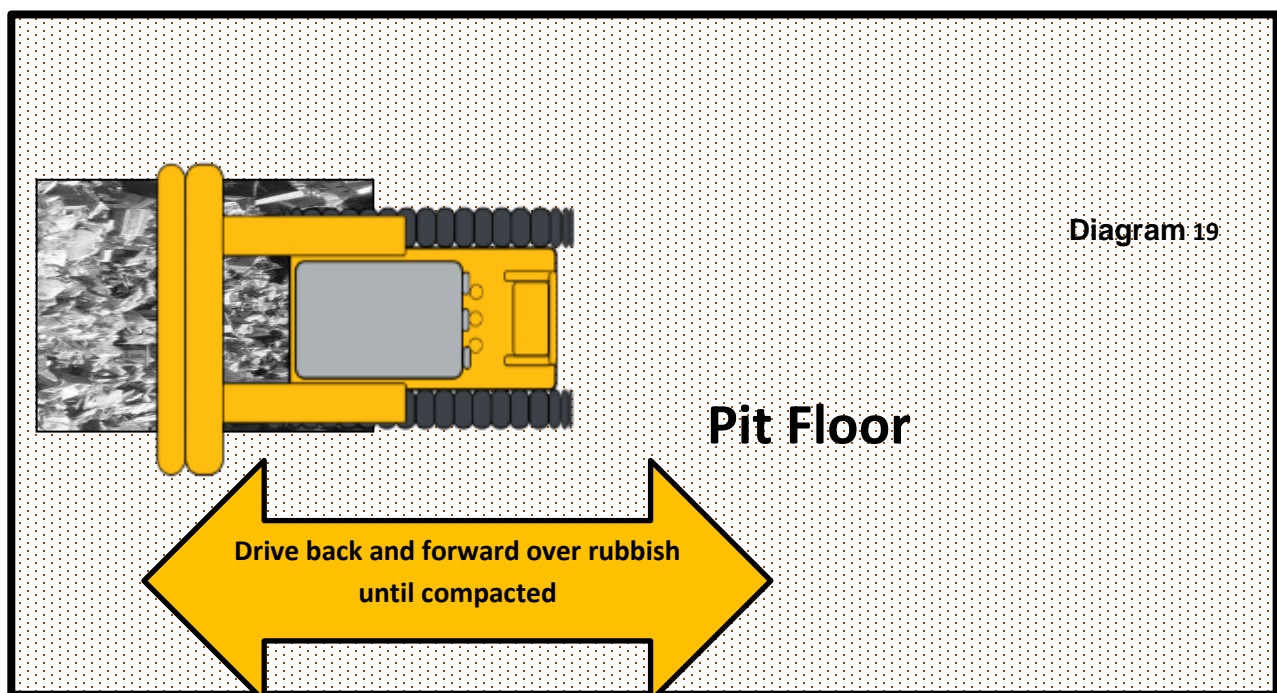
There are four steps to successful Waste Cell Management.

- ◆ **Consolidate**
- ◆ **Compact**
- ◆ **Cover**
- ◆ **Cap**

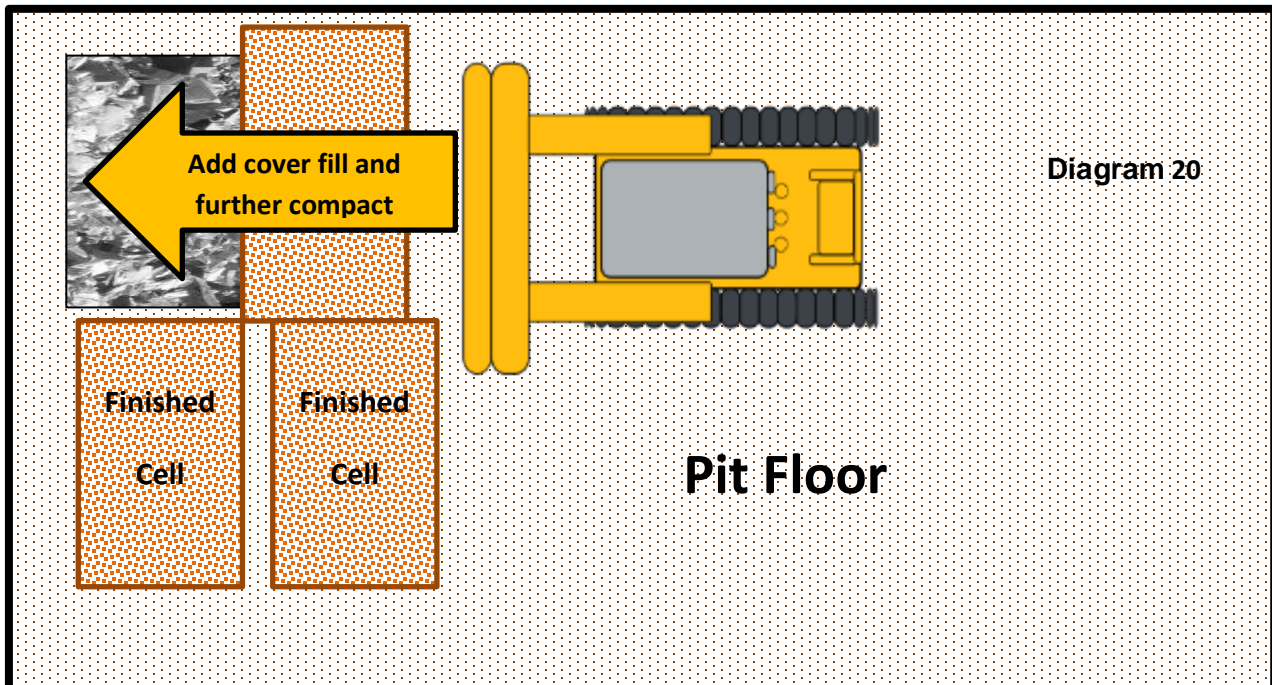
Action 1 Consolidate- This is the action of pushing waste into a neat pile in the correct position in the pit. It is good practice to add a bucket of clean fill to assist with compaction at this point. It can be done with a backhoe, front end loader or compactor/dozer.



Action 2 Compact - This is the action of reducing the size of the waste in the pit by squashing it down. It should be done daily in large communities and directly following garbage collection in small communities. Use bucket to press down waste and sprinkle a layer of dirt about 100mm thick. Drive over waste if no puncture risk present.



Action 3 Cover- This is a daily operation to make sure all domestic waste is covered with soil. A layer of 100mm thick is adequate. On large communities it is an end of the day process. In small communities it should be done immediately following the Council rubbish collection.



Action 4 Cap - Capping is the final action on a completed layer of cells. This seals the layer and creates a new operating floor on top of the old cells. It is also the final action required to seal off a trench, which is full to capacity and ready for closure. The final cap should be around 300mm finished at ground level so the area remains trafficable for future activities.

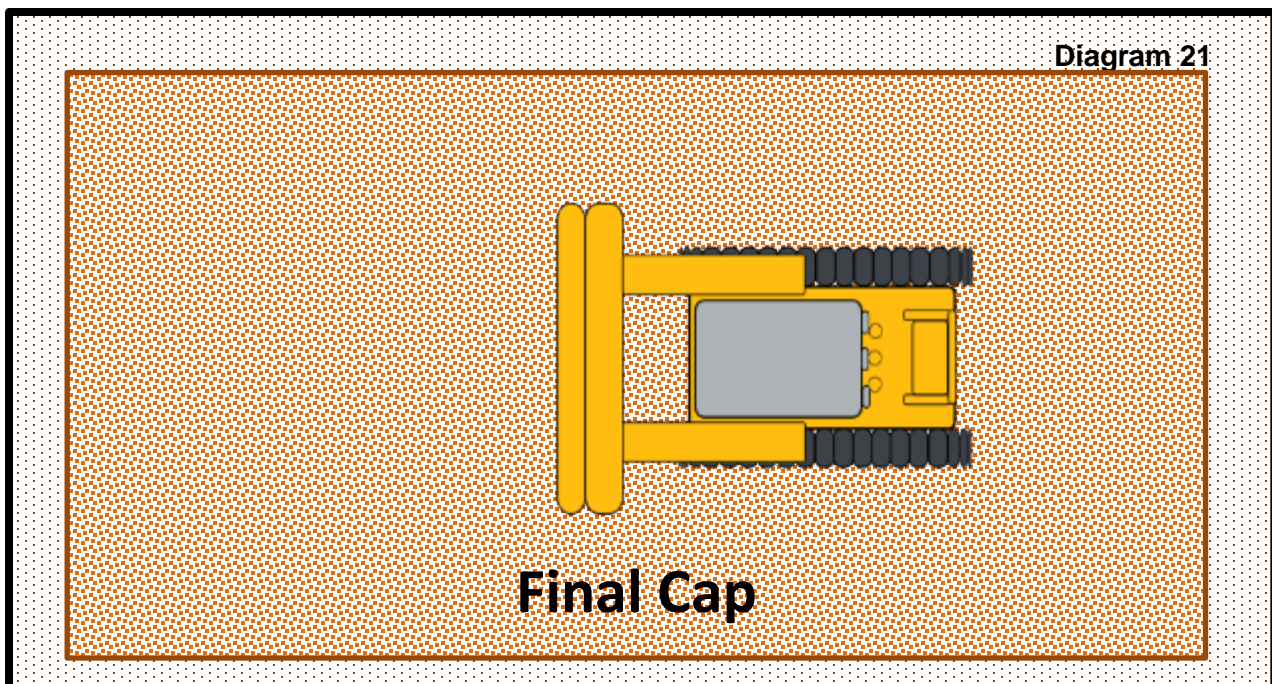


Diagram 22

Cross Section of a Completed Pit

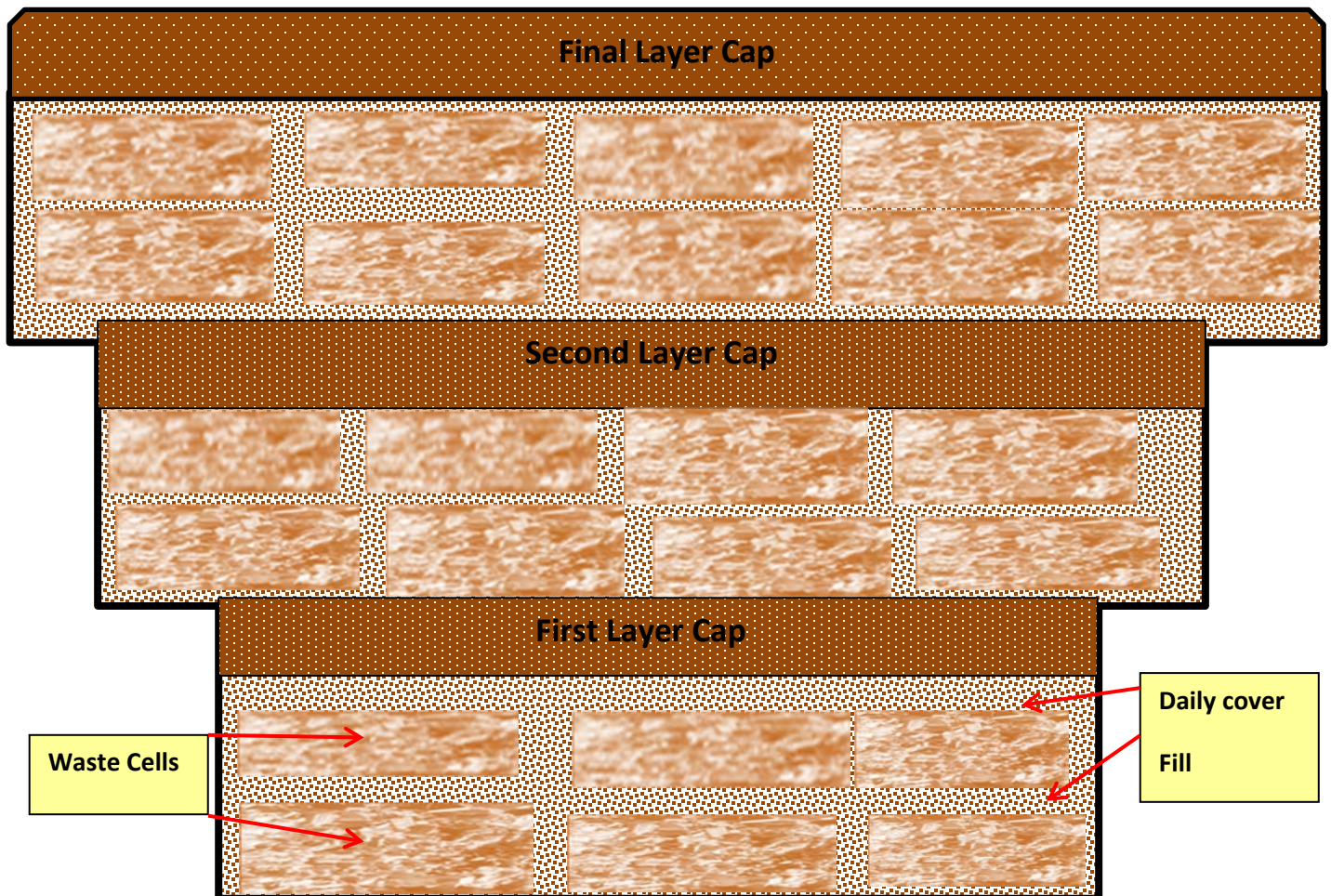
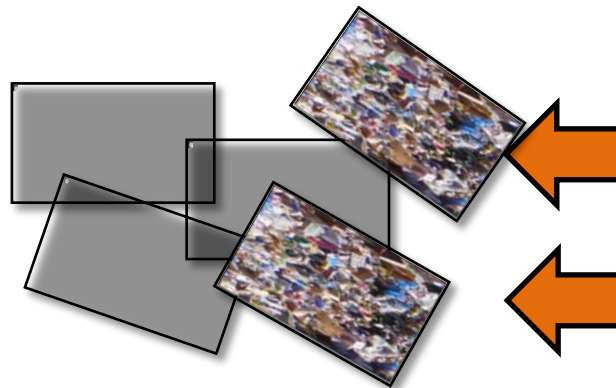


Diagram 23 **Four Steps to Manage Pit Waste**

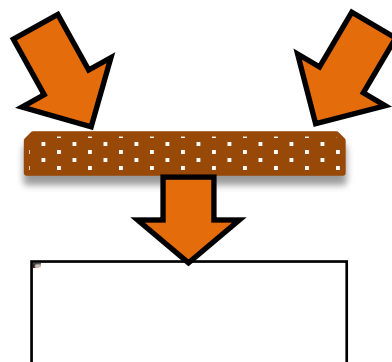
1. Consolidate- Push waste together daily



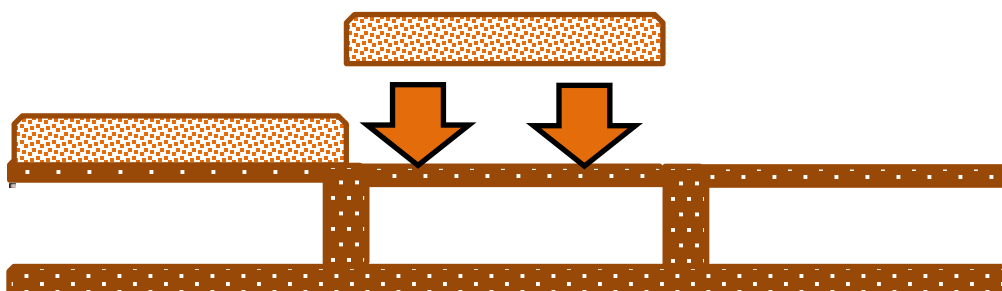
2. Compact- Reduce the size of waste by squashing daily



3. Cover- Add clean fill to cover waste daily



4. Cap- A final layer of clean fill to cover and finish a layer



Tipping Location

Pits should only be accessed from the end, not from the side. Side tipping has a high risk of reversing over the edge or collapsing the side wall. It should not be done.

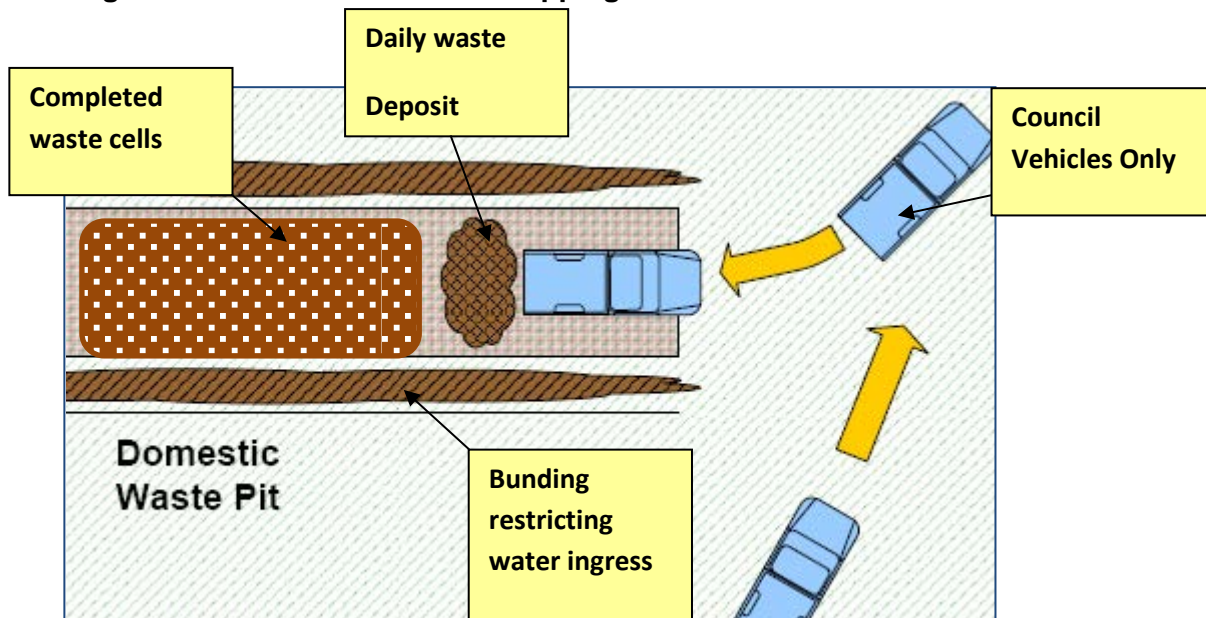
End Tipping in the pit is the mandatory method

End Tipping

Is a progressive movement along the pit floor. The waste is dumped on the ramp or pit floor and consolidated daily. Dumping area should be marked clearly with signage and temporary bunting.

Diagram 24

End Tipping



There are 3 recommended end tipping techniques that can be used:

1. **Base of pit**-reverse down (or drive if new wide pit) ramp to dump at far end of pit. May be inaccessible in wet weather
2. **Top of Pit**- dump from top of existing waste layer, which slowly migrates down the length of the pit
3. **Wet Weather**- dump as far down the pit as safe to access. Council staff to push into base of pit when weather allows.

A pit without proper management techniques in place



Consolidating daily waste with proper management technique





Forming neat waste cells
using end tipping
methodology

New Way

Old Way

Don't let the pit look like this



2.4 Listed and Hazardous Wastes

Listed wastes are wastes which pose public or environmental risk. Listed waste must be dealt with in accordance with NT EPA Act and regulations. In a community environment this will require separation and storage until safe disposal can be economically arranged.

Listed wastes encountered in communities include:

- Chemicals, paints, poisons
- Medical waste
- Vehicle batteries
- Septage
- Waste oils
- Gas bottles, fire extinguishers
- Tyres
- asbestos

Listed wastes are easily diverted from the landfill by setting up drop off bays as shown below



Listed waste should where practical be transported to the nearest major centre or licenced landfill for appropriate disposal.

2.4 Asbestos identification, testing, handling & disposal

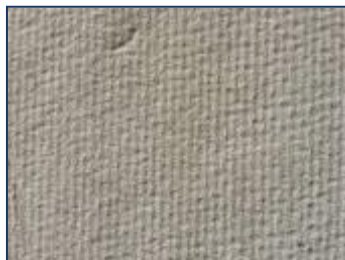
Asbestos is present in all remote communities. It was widely used as a cheap building material and is found in many different products. Asbestos is very common in all communities and is often found;

- Lying on open ground
- In abandoned buildings
- In mixed waste piles around the community
- In old dongas and silver bullets

If in doubt assume it is asbestos and treat accordingly.

Common Asbestos types found in communities

Asbestos Sheeting



Asbestos pipes and insulation



Asbestos Roof Sheets



Floor tiles containing asbestos



Do not handle asbestos if not trained to do so safely.

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Do not handle any friable (powdery or flaky) asbestos. It is very dangerous due to the risk of inhaling asbestos fibres. Trained staff should only handle non-friable asbestos (solid and not flaky) asbestos products.

Testing

Suspected asbestos should be sent for testing to an approved agency.
Use the technique as described in the Work Method Statement in Section 6 of this manual.

Transport and Disposal

In communities the transportation of asbestos to a licenced waste facility is expensive. In communities with an approved Asbestos disposal pit, use the technique described in the Work Method Statement "Transporting and Disposing Asbestos". Staff must be appropriately trained and equipped with PPE before doing this.

Interim Asbestos Storage Area

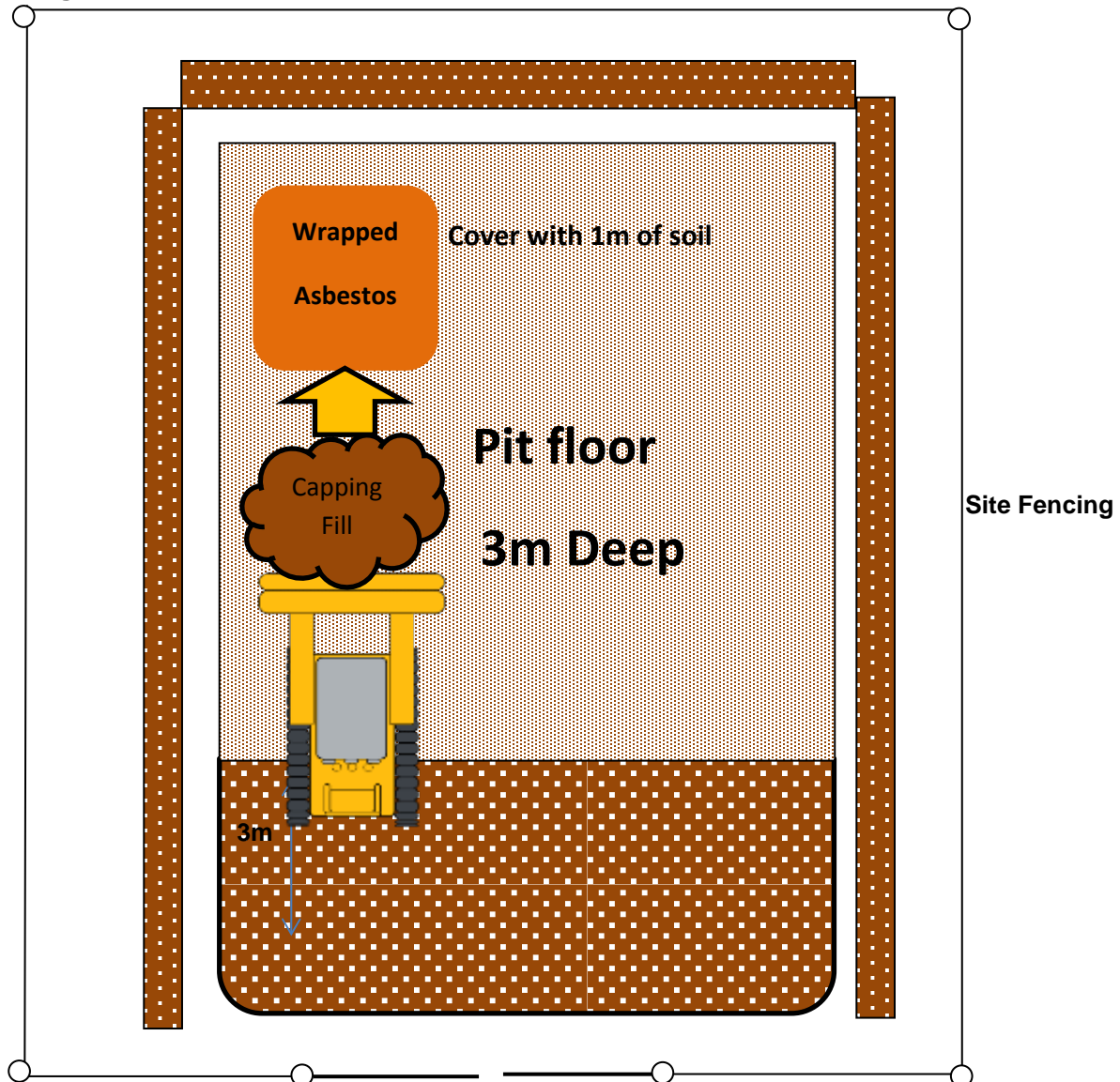


Asbestos placed in the pit should be:

- ◆ Wrapped in two layers of builders plastic and taped
- ◆ Laid carefully in the pit
- ◆ Covered immediately with 1m of soil- not compacted

Diagram 25

Asbestos Pit Use



- ◆ Located within locked compound
- ◆ Adequately fenced and signposted to prevent disturbance

Handling requirements

All bonded asbestos waste must be:

- kept damp (prevent runoff water)
- collected, labelled and sealed using appropriate plastic or leak proof containers
 - placed in bins or trucks that are large enough to contain full sheets without breaking them
- stored in a secure area
- removed from the site as soon as practicable.



Council Staff should not handle friable asbestos

All friable asbestos material must be only be handled by trained professionals. It must be removed from the site as soon as practical.

For further information see fact sheet;





2.6 Cardboard Burning Pit

The recommended method for disposal of cardboard at the landfill site is burning. *Back loading cardboard with outgoing trucks, or Council vehicle can be investigated as an alternative. Burning must be done under controlled conditions and by trained staff. Conditions to burn as listed on the permit to burn;

- ◆ Permit is not valid on fire ban days.
- ◆ Only Council staff to light up the burn pit.
- ◆ Council to ensure community fire trailer/truck is on-site when burning in high risk fire season.
- ◆ Council staff to remain on-site in high risk fire season until visible flames have disappeared and/or the situation is safe.
- ◆ Council to ensure fires breaks are in good order and maintained between the community and landfill, and around the perimeter of landfill



	PERMIT TO BURN		PERMIT No. 16820
	BUSHFIRES ACT NORTHERN TERRITORY		
NAME	<u>Tim Parlow</u>	PHONE No.	<u>89 750 886</u> Fax: <u>89 80988</u>
ADDRESS	<u>Lajamanu Community</u>		
LAND TO WHICH PERMIT RELATES	<u>Lajamanu Tip/Landfill</u>		
PERIOD FROM	<u>9/8/2013</u>	TO	<u>31/12/2013</u> BOTH DATES INCLUSIVE
Special conditions to be observed:—			
i) This permit is not valid in a Fire ban area.			
ii) Note Fire Ban Days.			
iii) Fire Equipment to be on standby.			
iv)			
DATED	<u>9/8/2013</u>		
 Fire Control Officer/Fire Warden			
NOTE: THIS PERMIT IS ISSUED SUBJECT TO THE PROVISIONS OF THE BUSHFIRES ACT SET OUT BELOW			

For operation detail see Work Method Statement 13

2.7 Animal & septic pits

DESIGNATED SEPTAGE TRENCH REQUIREMENTS

Septage is the term given to septic tank contents. It is generally pumped at the community and transported by truck to the landfill site. The disposal of septage must be in a separate trench from all other waste types.

The trench(s) shall:

- ◆ be of sufficient volume to contain the amount of septage requiring disposal
- ◆ be located so as to minimise access by humans and stock
- ◆ Not cause a public health nuisance, mosquito breeding, etc.
- ◆ be immediately covered with a minimum of 150 millimetres soil
- ◆ If in a landfill site, have a setback distance of at least 6 metres from a landfill trench or adjacent septage trenches.

Disposal of septage must be to a designated trench (i.e. not trenches intended or used for Landfill), preferably within landfill sites.

Occupational Health & Safety issues are to be considered whenever handling septage. Protective clothing is to be used and hands are to be washed regularly, prior to smoking, eating, etc.

- ◆ **Contractors need to notify the Council when a septage trench is required**
- ◆ **All contractors must be accompanied by a Council staff member**
- ◆ **Septage must be covered immediately**

Further information can be obtained from;



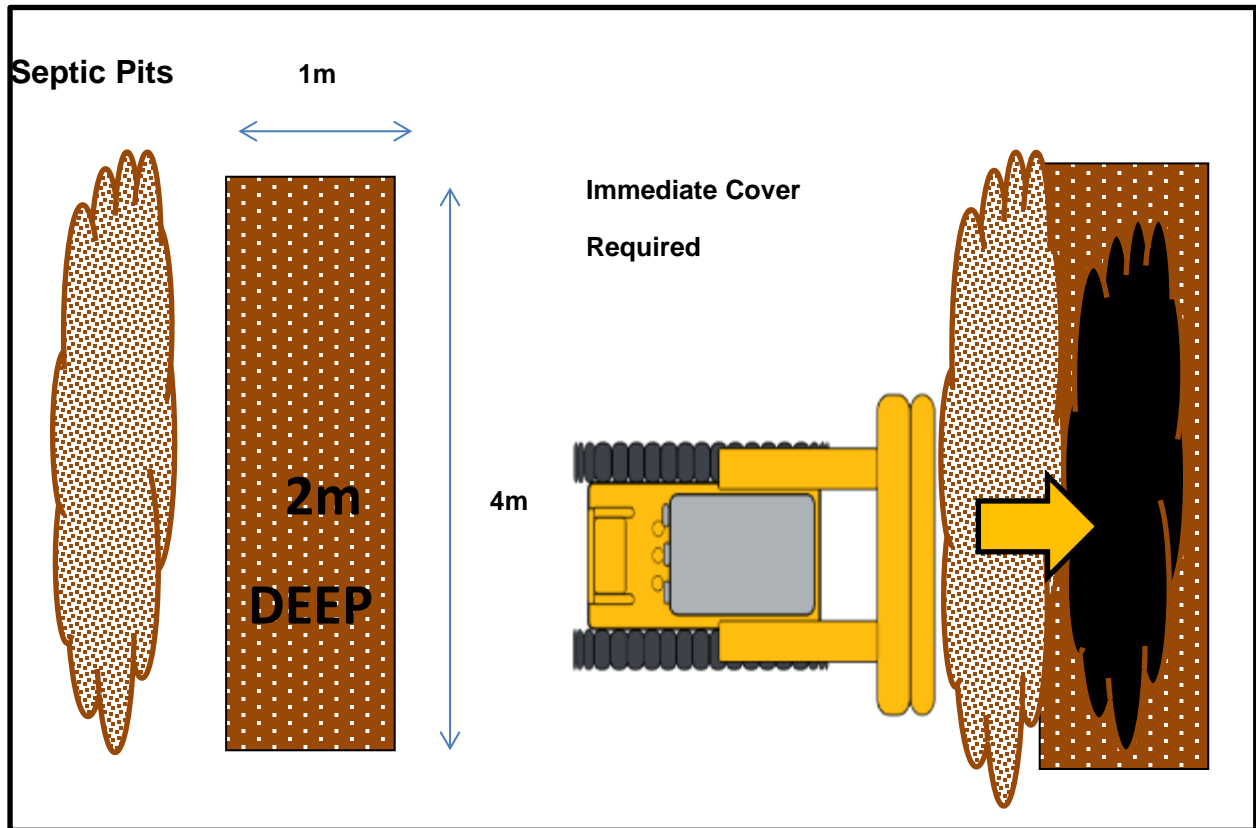
DEPARTMENT OF HEALTH AND FAMILIES

ENVIRONMENTAL HEALTH FACT SHEET NO. 501

DISPOSAL OF SEPTAGE FROM ON-SITE WASTEWATER SYSTEMS

Diagram 26

Septic Pit Use



Animal Disposal

Animal Disposal should not occur in the main pit. Animals should be buried in a designated area in a separate pit. The pit can be for multiple burials of small carcasses or single use large burial for large animals, i.e. horses, camels, cattle. If animal carcasses are found in the pit, they should be removed immediately as the risk of putrefaction is high bringing flies, maggots and increased vermin risk.



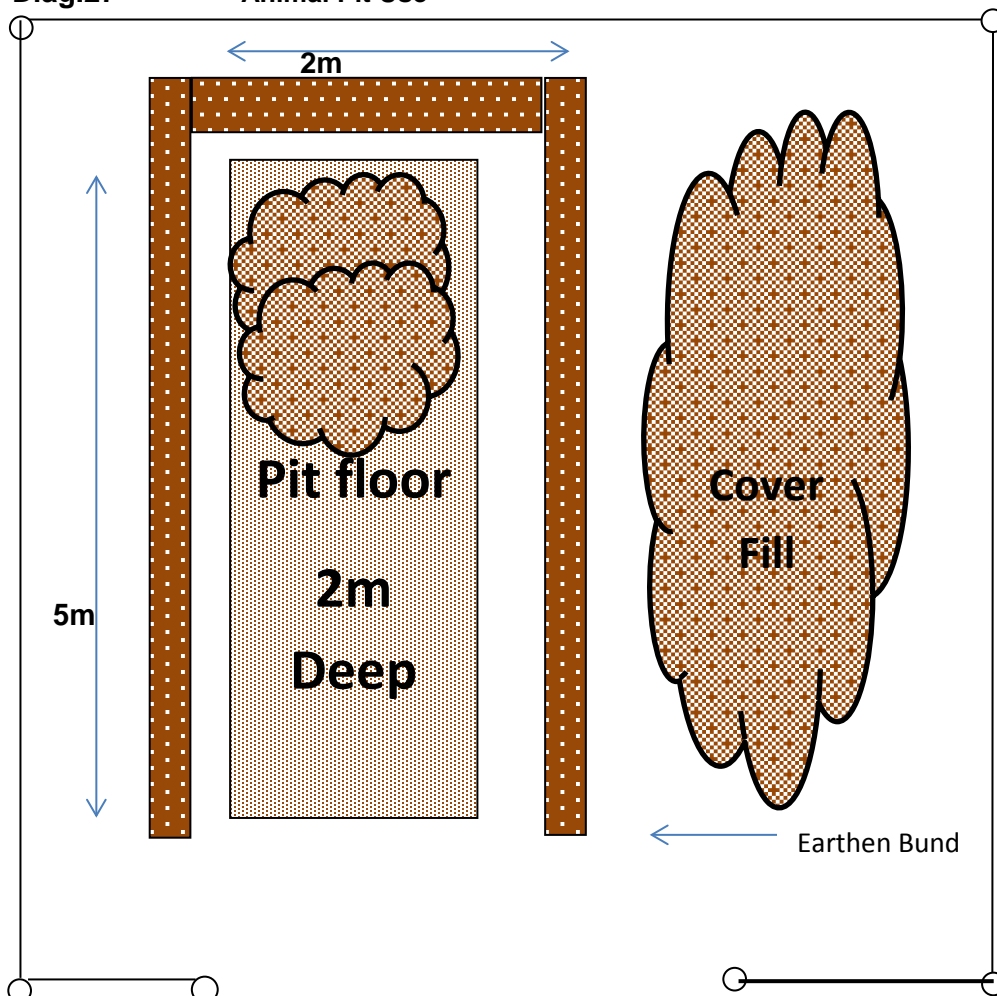


Animal Carcasses or animal parts should not be in the main pit

Specific Animal Burial Pit

Diag.27

Animal Pit Use

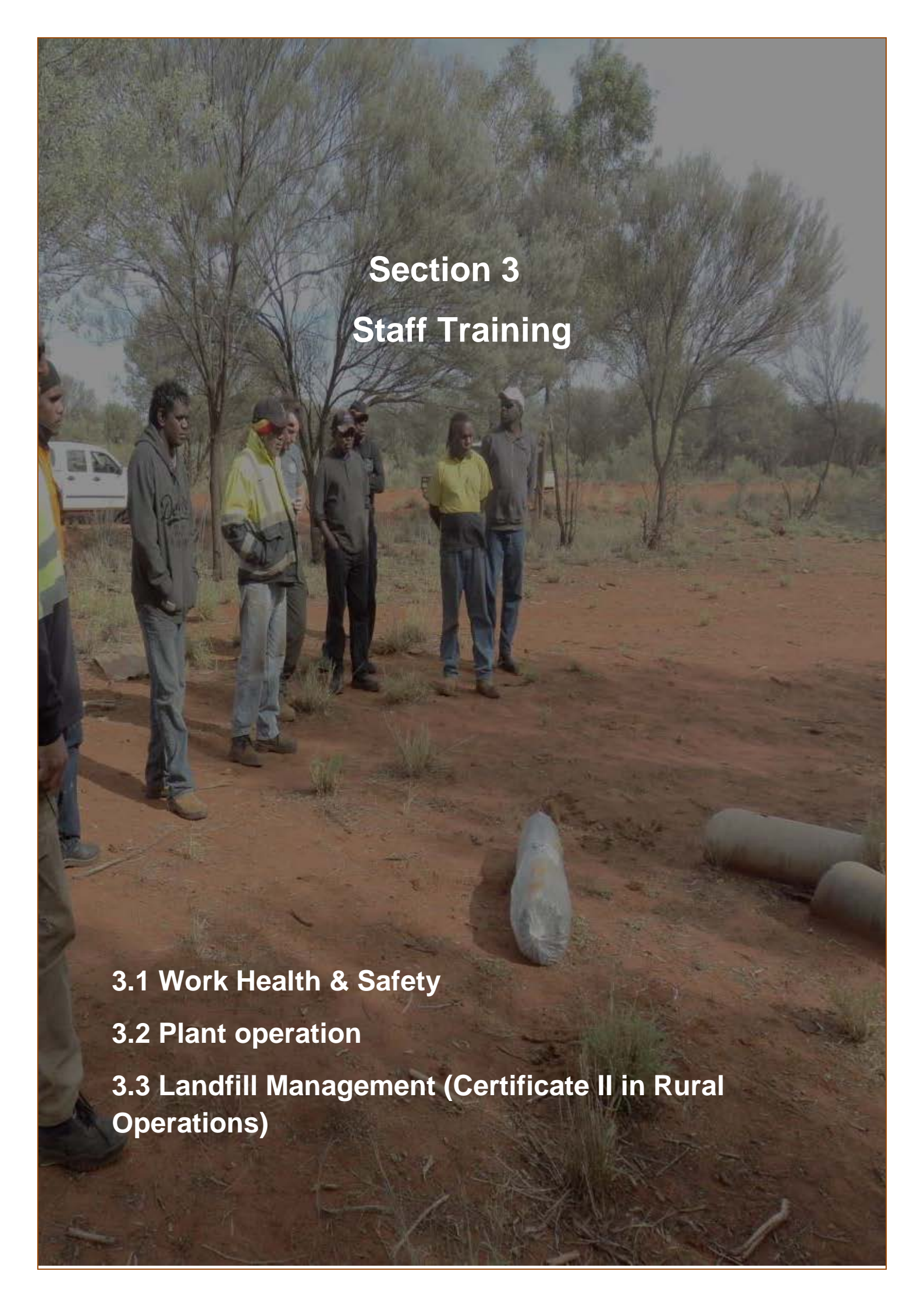


2.4 Medical waste pits

Council Staff are not to handle medical waste.

At the time of writing this Manual there is no specified method for dealing with medical waste. Contact NT Dept Health for updated information as required.

Section Notes



Section 3

Staff Training

3.1 Work Health & Safety

3.2 Plant operation

3.3 Landfill Management (Certificate II in Rural Operations)

Section 3 Staff Training

3.1 Work Health and Safety

The landfill site is a hazardous work environment. Minimising risks is essential to the safety of staff and community members.

The first step in working safely is wearing personal protective equipment or PPE for short.

The images below are of the **Minimum Personal Protective Equipment** or PPE required to be worn by staff operating at the landfill site.



Additional special purpose PPE (required for specialist tasks)



Chemical Gloves

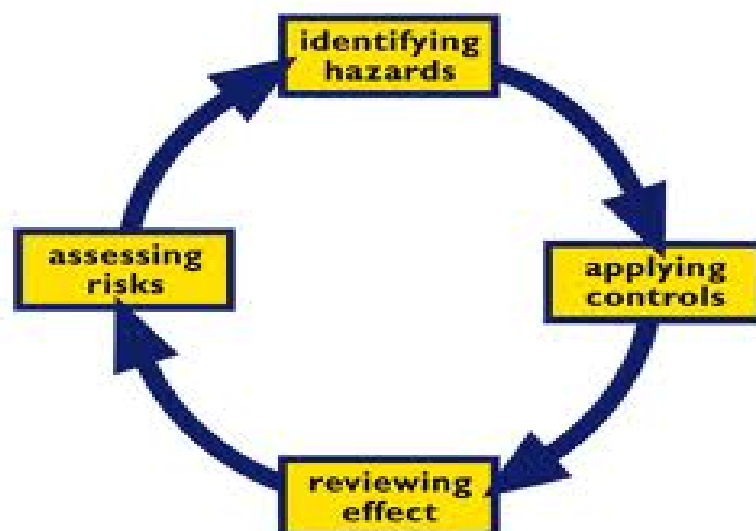
Canister Type Respirator

Face Shield

Managing risk at the landfill site is everyone's business. Use 4 simple rules:

1. **Assess Risks**- think about what work place actions may be potentially dangerous and how to make them safe
2. **Identify Hazards or Dangers**- look for potential site risks that may harm you
3. **Apply Controls**- Remove, clean up, repair or avoid any potential risk
4. **Review Effects**- Make sure what you have done has effectively made the hazard safe

Diagram 28. Risk Cycle



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Use a risk assessment form for hazardous activities.

A simple risk assessment form:

A) Task Description <i>Cover Waste at Landfill</i>		B) Date of Work : <i>23/12/13</i> Time Task start: <i>10am</i> Time Task Completed: <i>12pm</i>		C) Date Prepared: <i>23/12/13</i>
D) Prepared By: <i>Bill Landfill</i>				
E) Task <i>Cover and compact waste at landfill</i>	F) Identify hazards <i>Dust</i> <i>Vehicle backed into pit</i> <i>METAL IN PIT causing punctures</i>	G) Develop controls <i>Wet area down, Wear PPE</i> <i>Fence off exclusion zone near pit edges. Use a spotter</i> <i>Use a spotter</i> <i>Identify exclusion zones</i>	H) Determine Residual risk <i>NIL</i> <i>Nil</i>	I) Implement Controls <i>Use water Truck, Put on PPE</i> <i>Install fencing around pit-</i> <i>Use spotter to guide back hoe. Flag off high risk areas</i>
(J) Determine overall task risk level after controls are implemented <i>Low risk</i>				
Low(L)	Moderate (M)	High (H)	Extremely High (E)	

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SITE SPECIFIC HAZARDS

There are various common hazards at the landfill site whose risk can be controlled.

Table 5 Site Hazards and Controls

Hazard	Controls	Implement Controls
Dust	dust mask– water truck	Wear Dust mask –wet down work area
Falling	Avoid walking near pit edges	Fence off pit edges
Vehicle Movement	Don't walk near moving vehicles or plant	Establish exclusion zones for staff near vehicles- wear high visibility vest
Heat Stress	Have adequate water on site	Drink and work in cooler parts of the day
Chemical exposure	Separate chemicals from main pit,	Establish chemical area, wear chemical gloves, mask ,face shield, overalls if handling
Manual Lifting	Avoid lifting items that are too heavy	Employ safe lifting techniques. Do not walk on uncovered waste
Disease	Avoid entering the pit	Stay in vehicle whilst in pit, be appropriately vaccinated, wear PPE
Asbestos	Identify possible asbestos source	Wet down work area, avoid disturbances, and follow safe asbestos removal principles.
Gas	Gas mask	Wear gas mask

3.2 Plant operation

All operators of plant should be suitably trained and ticketed or licenced on that item of plant.

Put in place a regime that covers:

- ✓ Training
- ✓ Ticketing or Licencing
- ✓ Site specific operation

All staff should have the industry standard NT White Card.

3.3 Landfill Operation

Councils are providing Certificate 2 in Rural Operations training for all Field Officers, including units in landfill Management

Minimum Training Requirements for Landfill Staff:

- OHS requirements and safety plan
- Emergency response plan
- Manual handling of waste
- First Aid
- Personal Protective Equipment
- Emergency and safety
- Risk identification and management processes
- Policy/management systems/procedures
- Use of site plant and equipment
- Storage and covering of wastes
- Site maintenance requirements

AHC21210 Certificate II in Rural Operations



This course is compiled by The Centre for Appropriate Technology-CAT

Information on the above accreditation can be obtained from

: <http://training.gov.au/Training/Details/AHC10>

The Waste Management Coordinator or other suitably trained person will carry out the field training in each Council.

Delivery plan for Certificate II in Rural Operations

Training is a combination of class room time and hands on learning experiences. The following table is an outline of how training in waste management has been carried out in some communities. It is the intention of the CAWMP that all remote community staff who deal with waste will be up skilled to apply techniques in this Manual.



Asbestos wrapping demonstration

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Work-Based Learning Pathway 1	
Organization/RTO	Central Desert Regional Council : Yuendumu Community
Facilitator	Geoff Taylor : Central Australian Waste Management Coordinator TAE 40110 Cert 1V Training & Assessment
Learner	Field Officers Yuendumu: Landfill Staff
Benchmark/ Objective	Develop competency in best practice operations of Community Landfill including handling and disposal of Community Waste To identify organizational communication requirements and workplace procedures with assistance from appropriate people By the end of this course the learner will have developed an improved skill set and be more confident in their work role to deliver improved service to their Community This informal course to be seen as "RPL" towards Landfill Management (Cert 11 in Rural Operations)
Learner Characteristics	<i>Learners have a range of LLN issues and may not respond to activities that involve reading long texts. Learner's will respond to a more visual presentation and hands on approach to the subject</i> <ul style="list-style-type: none"> • A varied age group • All with vast knowledge of their Community operations • Kinesthetic learners, practical/hands on • Enthusiastic and willing to learn • Do not like reading much
Learning Context	Mixture of on the job training at the Landfill and informal classroom delivery
Boundaries/ Expectations	The trainer will work with the Council in setting times for training, this will be a comfortable arrangement as it will involve on the job training and be meshed in with their day to day work program. The trainer will communicate to the Learners through the Council Services Manager prior to and at the completion of the training
Access/Equity considerations	The Trainer will take into consideration LLN issues experienced by the Learner Informal classroom sessions will carefully structured with adequate breaks and intervals Power point and white board tools will be extensively used in consideration of the above
OHS considerations to ensure learner safety	The trainer will facilitate a complete induction for all learners in regard to the facilities on hand, exits, emergency procedures, amenities available. Appropriate breaks will be provided throughout the training. PPE will be provided for the onsite training
Other relevant stakeholders	The Trainer may require the assistance of the Council Services Manager in parts of the content delivery. The trainer may include guest speakers during the informal classroom session e.g. Bush Fire NT Environmental Health, EPA to speak on related topics
Details of any external or 'off- the-job' learning	All Training will be conducted on Community
Strategies to monitor	The Trainer will monitor progress post the training by setting weekly times to contact works supervisor to discuss the progress of the participants.

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workplace pathway	Trainer will set date to visit Community after training to assess progress
Assessment strategies	Trainer to visit Communities and observe skills of Learner's Obtain verbal or written report from Works Supervisor
Criteria for evaluating effectiveness of pathway	Trainer to speak with Learner to obtain their thoughts on the training. Trainers reflection on the process and the learners response Feedback from supervisors and managers Feedback from Community members, and visual improvements made at the Landfill site
Contractual requirements	The Field Officers are to complete the entire courser and complete tasks set out by the trainer and Supervisors
Agreed by:	Learner: Field Officer Name: _____ Date: _____ Facilitator: Geoff Taylor _____ Date: _____ SSM/RSM _____ Date: _____

Pathway Schedule

Date	Pathway Activity	Personnel/staff involved (Roles & Responsibilities)
1/6/2013 9am- 11am	Trainer to present Best practice Waste Management program to students, Landfill design, correct waste handling procedures, Landfill operational procedures, environmental health impacts Completion of simulated activities Group to discuss reasons for best practice operations	Trainer observations/questions and answers
11am- 12:30pm 1pm- 4pm	PPE requirements and reason for when operating Landfill Landfill onsite session : All hands on operations	Trainer observations/questions and answers Trainer demonstration/ Field Officer to mimic



Section 4

Auditing and Reporting

4.1 Landfill Auditing

4.2 Litter, bins and car audit

Section 4

Auditing and Reporting

4.1 Landfill Auditing

Monitoring a landfill site is as important as introducing changes in infrastructure and practices. A well designed site will deteriorate in a short period of time if not well managed. Regular, formal inspections play a vital role in this management. The inspections can be simple, and regularity is the key. It is important that specific operation and monitoring tasks are assigned to specific staff members.

A site that has no inspection regime is at high risk of deterioration

Weekly Landfill Inspection Audit

The landfill inspection audit identifies and monitors onsite issues. The intended user is the Works Supervisor and/or Landfill Leading Hand assisted by field staff. The audit should be completed once a week as per the Work Method Statement- **Landfill Inspection Report**, and handed to the SSM or Works Manager. The audit sheets should be in a dual copy carbon A4 book, or completed on electronic tablet device.

Monthly Manager's Inspection Report

The SSM/Manager should undertake a formal monthly audit of the Landfill site. This involves a site visit to make sure that staff are on track with the overall operation of the site. The audit will assist the manager to assess the status of upgrades, plan future works and budgets, and identify gaps in staff training. The manager must lodge the report to their relevant Director.

6 Monthly Director's Report

The Director's report is a summary of the progress of operations and capital upgrades, for use by the CEO and Council. The Works Matrix used by Central Australian Regional Councils will capture this information.

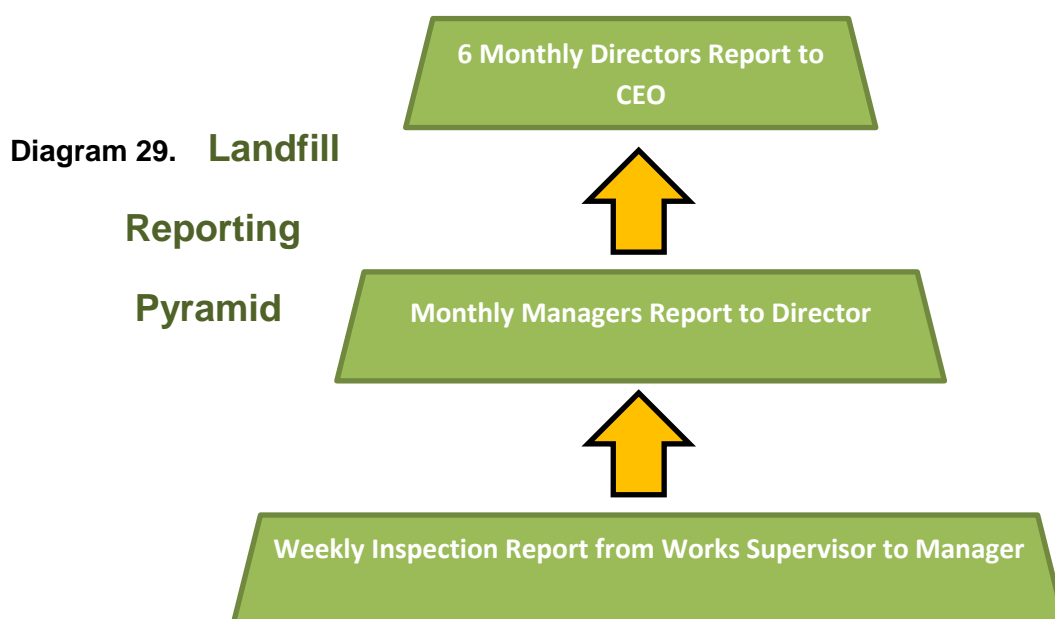


Diagram 30. Landfill Responsibility Hierarchy

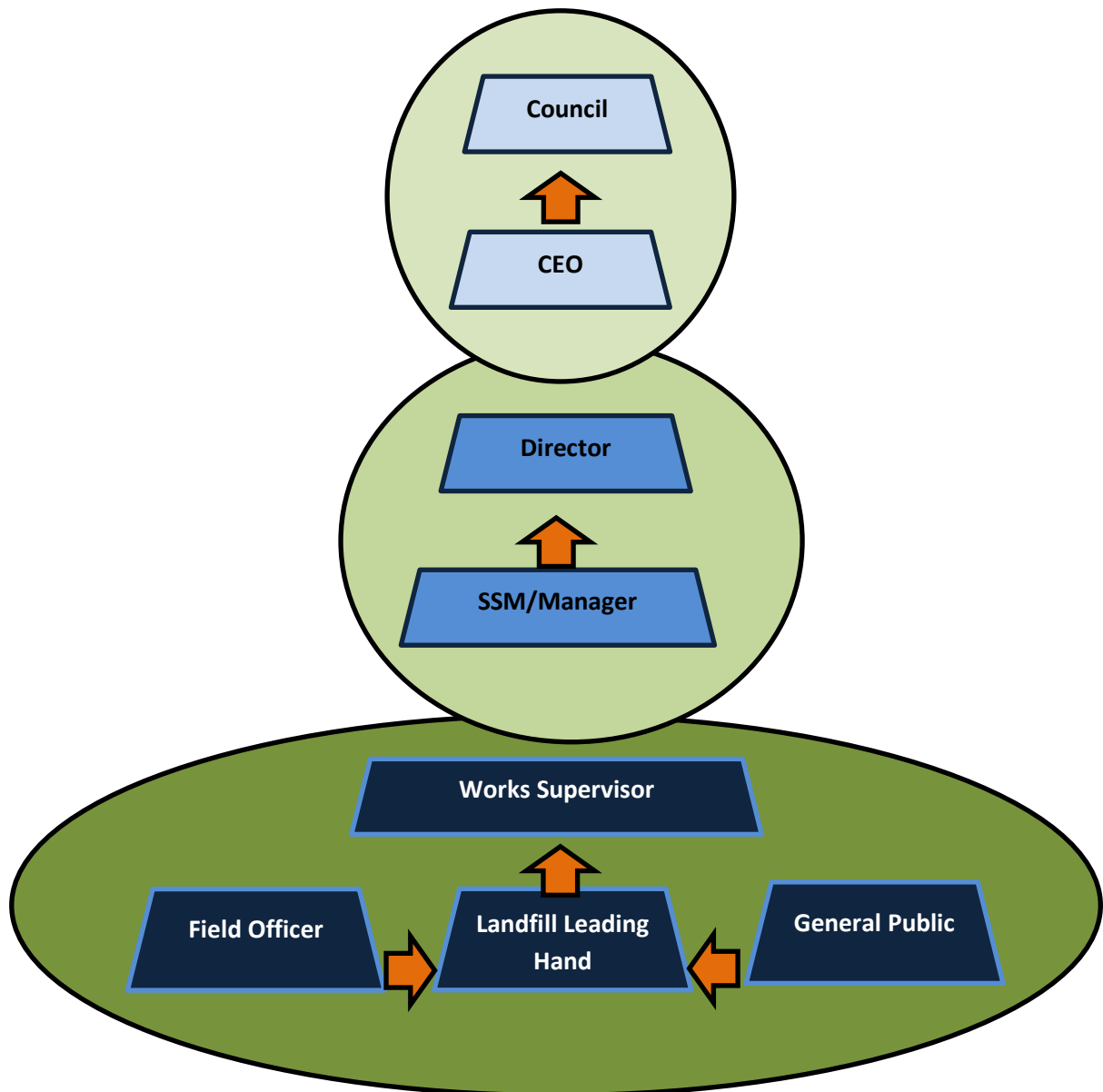







Diagram 31

Everyone needs to work together to get the landfill working the right way. Get to know who is responsible for each role in the landfill management chain.

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Exert From Weekly Landfill Report

							
WEEKLY LANDFILL INSPECTION REPORT							
Location:				1 Inspection per week			
Staff:				Submit to SSM/SSC			
Week Ending:				by 2pm Every Friday			
1=	Inspected item O.K- no work required						
2=	Inspected item requires work- Work carried out and completed						
3=	Inspected item required work- Work to be scheduled						
Score 1, 2, or 3 next to each item							
Fill out Inspection day					Score 1-2-3		
			Mon	Tue	Wed	Thur	Fri
1) Access Road -Clear of Rubbish							
2) Fencing- Intact-no holes & gates working							
3) Pit Condition- Only domestic waste, cover fill on							
4) Separation Bays- Tidy, sorted, only listed items							
5) Signs and markers-All in place							
6) Car Area- Cars in area, boots and bonnets off-safe							
7) Scrap Metal-Pile consolidated, safe							
Work to be Scheduled							

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Monthly



CENTRAL DESERT
REGIONAL COUNCIL
two ways :: one outcome

Managers
Report to



MacDonnell
Regional Council

Director

MONTHLY LANDFILL AUDIT ASSESSMENT

Location	
Date	
Assessor	

DESCRIPTION	SCORE	Condition Score Criteria
1. Entrance Road to landfill from Community		1-No Rubbish 2- Clean Up Required- Scheduled 3- Immediate clean up required
2. Landfill Fence		1-Complete- gates in order-no work required 2-Partial- needs repairs, or additions 3-None- Installation required
3. Landfill Operating Area		1-Public Access Controlled, separation bays in order, pit area locked off and tidy 2- Public access marked but not, poor traffic flow indicators, untidy site causing safety risks 3- Public can Access all of compound, no traffic flow indicators, significant safety risks
4. Pit Condition		1- Waste Cell methodology in place, Adequate cover fill, evidence of regular CONSOLIDATE-COVER-COMPACT 2-Poor practices evident-some listed waste present in pit, inadequate cover fill and compaction techniques 3-No obvious methodology in place, no covering or compaction, contains listed waste
5. Scrap Metal and tyres		1-Clearly marked steel/tyre area, consolidated regularly, safe from wind blow 2- Poorly defined area, poorly consolidated, dangerous to public 3- No clearly defined area, not consolidated, dangerous to public
6. Vehicles		1-Designated vehicle area, tidy. Well planned for 5 year collection, adjacent to current landfill site 2-More than one vehicle area, scattered over large area, close to or adjacent to current landfill site 3- No clearly defined vehicle area, other rubbish mixed with vehicles, not adjacent current landfill site
7. Carcass-Septic/Medical pits		1-Separate pits-fenced, away from main pit, clearly marked, covered with soil 2- Separate pits, not in landfill site, poorly signposted 3- No separate pits, carcass's presently in main pit
8. Public Drop Off Area		1-Separation bays sorted, signposted and free of impurities in place. General household rubbish bay clean 2-Separation bays present, untidy, not well sign posted, contain impurities 3-No separation bays for listed waste
9. Nuisance Health Issues managed		1-Odours from the site are being managed 2-Waste are being stored as not to encourage insect breeding
10. Water Management		1-Water is being effectively diverted from landfill pit/s 2-Water is not ponding anywhere on site

Table 6 Landfill Reporting Responsibilities

Position	Reporting Responsibilities	Reports to
CEO	Annual Report	Council/NTG
Director	Six Monthly Report	CEO/Council/External Agencies
SSM	Monthly inspection	Director/Area Manager
Works Supervisor	Weekly site audit	SSM/Manager
Field Officer	Report issues as they arise-assist Works Supervisor with Weekly audits	Works Supervisor
Public	Report Hazards	Works Supervisor

4.2 Community litter, bins and car audit

Waste within the community is often the subject of external criticism and is often the target for public comment. The Community Litter and Waste audit is an effective way to monitor and rectify these key areas. A Community Waste Audit provides the information to strategically plan community clean ups.

The audit is a scoring system for each property and public space;

1. **All O.K –No action required**
2. **Some issues-scheduled action required**
3. **Bad condition –immediate action required**

Litter- audits rubbish in and around properties and public spaces. It is the areas that the Council has a responsibility to maintain. Litter includes windblown rubbish, hard rubbish and car parts, old furniture and other solid rubbish

Bins- audit the condition of bins provided by Council for domestic waste collection. If bins are not functional or missing then waste soon becomes an issue for tenants.

The audit is best done quarterly and should cover the whole community. It records the status of waste in the community and can be used to work with external complaints and criticism. It is best performed as a team and with benchmark scoring established prior to performing the task. Audit results then informs priority actions for Council staff, community members and external agencies.

Exert from audit sheet (full version in section 7 forms)

Community Litter and Hard Waste Audit										Central Desert Shire Council				
Community		Date		Assessor		Drive-by or comprehensive audit				Page ____ of ____				
Lot No or Area	Terr Housing or Other (describe)	Wheelie bins						Car bodies	Animal carcass	Yard rubbish		Verge rubbish		Overall Condition
		# bins	# stands	Number damaged						Score 1-2-3		Score 1-2-3		
				Bin	Lid	Wheels	Stands			Litter	Hard waste	Litter	Hard waste	

To learn how to use the Audit Sheet, use the Work Method Statement for Community Litter Waste in section 6 of this Manual.

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Tools Required-

- Community SLAP Map showing lot numbers
- Community Satellite Photo (optional)
- Audit Sheet
- Vehicle Removal Consent Form
- Camera

Cars- Relates to derelict vehicles both in Territory Housing lots and on public land. Permission of owners is required to move these to the car storage area- Use the form "Vehicle Consent" in section 7 of this Manual.

A work order must be raised by Territory Housing before Council removes any vehicles from inside Territory Housing yards. Council should submit 3 monthly Waste Audit to Territory Housing so there is a clear record of derelict vehicles on their properties.

Exert from Vehicle Audit:

CAR BODIES IN TERRITORY HOUSING LOTS



Community	<i>Santa Teresa</i>
Audit date	<i>12/10/13</i>
Submitted by	<i>Joe Audit</i>

The following car bodies in Territory Housing lots have been deemed unsafe and should be removed to the Council's car body storage area near the landfill.

Territory Housing Lot No	Number car bodies
12	3
23	4
18	3
22	5

Section 5 Regulations and resources

Key Documents	Organisation	Where to obtain
Waste Management Guidelines for Small Communities	LGANT	E: Info@lgant.asn.au P: 08 8936 2888 W: www.lgant.asn.au
NT Guidelines Siting- Design-and management of solid waste disposal sites NT	NTEPA	P: 08 89244218 W: www.ntepa.nt.gov.au
Waste Audit Guide	LGANT	E: Info@lgant.asn.au P: 08 8936 2888 W: www.lgant.asn.au
Waste Management Priority Planning Template	LGANT	E: Info@lgant.asn.au P: 08 8936 2888 W: www.lgant.asn.au
ISWA Landfill Operational Guidelines	ISWA	Google- ISWA
CLC Sacred Site Clearance	Central Land Council	P: (08) 8951 6211 Fax: (08) 8952 7387 W: www.clc.org.au

Applicable Legislation

The *Waste Management and Pollution Control Act* is the main legislation regarding waste disposal, however there are other legislation, guidelines and standards that are applicable. Below lists these documents and they should also be consulted to ensure compliance.

Related legislation guidelines and agencies for Waste Management in the Northern Territory

- *Waste Management and Pollution Control Act 2007*
- *Waste Management and Pollution Control (Administration) Regulations 2004*
- *Water Act 2004*
Department of Natural Resources, Environment, the Arts and Sport (NRETAS) (www.nt.gov.au/nreta).
- *Public Health (Nightsoil, Garbage, Cesspits, Wells and Water) Regulations*
- *Public Health (General Sanitation, Mosquito Prevention, Rat exclusion and Prevention) Regulations*
- *Environmental Health Standards for Remote Communities in the Northern Territory 2001*
Department of Health and Families (DHF) (www.nt.gov.au/health/envirohealth)
- *Local Government Act 2007* Department of Local Government And Housing (www.dlgh.nt.gov.au)
- *Workplace Health and Safety Act 2007*
- *Workplace Health and Safety Regulations 2008*

Key External Agencies:



ntepa@nt.gov.au

(08) 8924 4218



Phone: (08) 8999 2400 **Head Office:** 87 Mitchell Street, Darwin, NT 0800

Post Address: PO Box 40596, Casuarina NT 0811



Main Office 27 Stuart Hwy Alice Springs, NT 0870

Australia Tel 08 8951 6211 **Fax** 08 8953 4343

Email: FOR PERMITS : permits@clc.org.au OTHER: media@clc.org.au **PO Box** 3321, Alice Springs

NT 0871



Central Australian Remote Landfill Operating Manual

Telephone: 1800 193 111

Email: territory.businesscentre@nt.gov.au



LOCAL GOVERNMENT ASSOCIATION OF THE NORTHERN TERRITORY

Postal Address: PO Box 2017, Parap NT Australia 0804

Office Address: 21 Parap Road, Parap NT Australia 0820

Email: info@lgant.asn.au

Important Fact Sheets



DEPARTMENT OF
NATURAL RESOURCES, ENVIRONMENT, THE ARTS AND SPORT

Asbestos Disposal in the Northern Territory

Information on the requirements for the disposal of Asbestos in the Northern Territory

Available at: www.nretas.nt.gov.au

Available at: www.health.nt.gov.au



DEPARTMENT OF HEALTH AND FAMILIES

ENVIRONMENTAL HEALTH FACT SHEET

No. 501

DISPOSAL OF SEPTAGE FROM ON-SITE WASTEWATER SYSTEMS



Section 6 Work Method Statements

Register of Work Method Statements

1. Developing a Site Plan
2. Litter Control
3. Dust Control
4. Pest Control
5. Weed Control
6. Signage
7. Fencing
8. Cars collection
9. Whitegoods collection
10. Get Reusable Gear
11. Reuse and Recycling
12. Burning Waste
13. Cardboard Burning
14. Contractor Sign In
15. Looking after the Trenches
16. Flooding and Erosion
17. Collect Bins from Community
18. Bins Maintenance
19. Listed Wastes
20. Car Batteries
21. Animal Carcasses
22. Emergency Response Plan
23. Auditing Litter, Waste, Bins & Cars in a Community
24. Asbestos

1. Work Method Statement

Developing a site plan

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> Full staged and drawn to scale plan of the landfill site is available onsite and at head office Plan details past, present and future activities at the landfill facility Staff are aware of the plan
2. General Strategies and Procedures	<ul style="list-style-type: none"> Conduct a 'walk through' of waste site to become familiar with key facilities and activities Do a rough 'mud map' first, not to scale but including as much information as possible Active trench is indicated, with estimate of time till full Drop off points and special waste disposal points are all clearly marked GPS coordinates of key points in the site Overlay with topographical / satellite map
3. Procedure Identify:	<ul style="list-style-type: none"> drop off areas for bulky goods, tyres, cars, listed wastes, reusable gear direction of wind northerly direction topography or slope of the site and water flow direction distance to nearest bore, community, water courses past trenches current trench future trenches fence boundary animal carcass disposal area any other points of interest that impact on the functioning of the site
4. Recording and Reporting	<ul style="list-style-type: none"> Document any incidents and the measures taken to address the situation Develop Emergency Management Plan
S. What to do when it's not working	<ul style="list-style-type: none"> New works found to be non-conforming with site plan must be ceased immediately pending management approval Any new trenches or changes to the site without approval by Area Manager will be reviewed and reversed Update and monitor site plan
6. Management Review	<ul style="list-style-type: none"> Annually When any significant change occurs at the site

2. Work Method Statement:

Litter Control

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none">• Community township is visibly clear of litter, bins are not overflowing and fence lines are clear• No litter to escape landfill boundaries• Litter to be collected and disposed of as often as necessary to maintain tidy appearance
2. General Strategies and Procedures	<p>Minimise area of the 'active face' at the landfill trench</p> <ul style="list-style-type: none">• Cover waste and compact when possible• Regular visual checks and litter pick ups• Good housekeeping and tidiness• Erect fencing in community and around landfill
3. Litter Control Procedures	<ul style="list-style-type: none">• Sometimes a litter clean-up will be required. This can be scheduled into weekly work tasks• At end of each day, collect all litter bags and empty at landfill working face• Check external properties including roadways adjacent to landfill site at least once weekly to ensure these are free of litter
4. Recording and Reporting	<ul style="list-style-type: none">• Weekly Log Sheet (diary) — record results of visual inspections• Waste Management Monthly Report
5. What to do when it's not working	<ul style="list-style-type: none">• Investigate cause of uncontrolled litter (e.g. uncovered loads, overflowing bins, littering behaviour around store)• Check adequacy of strategies above• Clean up excessive litter and modify procedures to avoid recurrence
6. Management Review	Document Waste Management Monthly Report

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3. Work Method Statement:

Dust Control

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none">• General activities at landfill do not result in large amounts of dust• Dust does not blow around the community centre• Native vegetation is maintained as much as possible
2. General Strategies and Procedures	<ul style="list-style-type: none">• Encourage vegetation at landfill• Minimise 'active' tip face• Cover waste regularly• Minimise vehicle traffic at landfill• Orient landfill and trenches away from prevailing winds• Avoid working at landfill on high wind days• Water down roads on high wind days
3. Procedure	<ul style="list-style-type: none">• Prior to earth moving activities at the landfill site, observe the wind — if wind is blowing toward the community from the landfill site, and reconsider earth moving activities.
4. Recording and Reporting	<ul style="list-style-type: none">• Weekly Log Sheet (diary) — record results of visual inspections• Waste Management Monthly Report
5. What to do when it's not working	<ul style="list-style-type: none">• Cease all earth moving activities• Investigate cause of excessive dust• Water down roads and access areas
6. Management Review	<ul style="list-style-type: none">• Document above in Waste Management Monthly Report

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4. Work Method Statement:

Pest Control

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none">• Perimeter fence is maintained and gates are kept closed• Pest animals are not present at the landfill site• Food waste is not left exposed at landfill site
2. General Strategies and Procedures	<ul style="list-style-type: none">• Minimise 'active' face of landfill site to discourage scavenging• Push waste up and cover with 150mm soil• Baiting or trapping if necessary• (see Animal Carcasses)• Waste is covered with 150 mm designated fill cover regularly.• Bulky items are separated out to reduce the amount that needs to be covered,• Organic waste is also separated out for composting to reduce putrescible waste at the landfill site.• Landfill is well fenced to prevent dogs and larger pests from entering. When necessary, baiting or trapping is undertaken to eradicate pests,• Bins in the community are emptied frequently and have lids. :• A perimeter fence is erected around the landfill site when resources permit.• Bins in the community generally have lids and are emptied regularly.• Baiting or trapping is undertaken to manage pests.• Report
3. Recording and Reporting	<ul style="list-style-type: none">• Weekly Log Sheet (diary) — record results of visual inspections• Waste Management Monthly
4. What to do when it's not working	<ul style="list-style-type: none">• Identify what pest animals are present• Repair fencing
5. Management Review	<ul style="list-style-type: none">• Lay baits and/or traps as necessary and appropriate• Quarterly

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5. Work Method Statement:

Weed Control

Item	Comment / Action
	<ul style="list-style-type: none">• Weed species are identified in the community and at the landfill site.
1. Performance Indicators	<ul style="list-style-type: none">• The Weeds Branch in NRETAS is contacted for appropriate weed-specific disposal methods.• There is a weed management plan for the community.• Staff can identify declared weeds and have a weed management plan.
2. General Strategies and Procedures	<ul style="list-style-type: none">• Composting is done where possible but generally weeds are chemically sprayed or burnt.• Green waste including weeds should not be disposed of with general waste, in the main trench• Contact Council or the NRETAS Weeds Branch to find out what weeds are problematic in the area and if there are any existing programs for weed control. http://www.nt.gov.au/nreta/natres/weeds/index.html• Assess landfill area to identify any weed infestations.• Educate staff and community on the identification, treatment and disposal methods of weeds.
3. Recording and Reporting	<ul style="list-style-type: none">• Weekly Log Sheet (diary) — record results of visual inspections• Waste Management Monthly Report
4. What to do when it's not working	<ul style="list-style-type: none">• Identify what weeds are present and the necessary treatments• Spray as necessary
5. Management Review	<ul style="list-style-type: none">• Quarterly• Waste Management Monthly Report

6. Work Method Statement

Signage

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Item	Comment/ Action
1. Performance Indicators	<ul style="list-style-type: none"> • Signs present at: landfill access, inside landfill to indicate what items should be kept out of the trench and reused, active tip face to show where to dump. • Signs are locally and culturally appropriate, using graphics and local language to support the message. • Where relevant they refer to appropriate legislation and possible penalties.
2. General Strategies and Procedures	<ul style="list-style-type: none"> • Signs don't have to be professionally made, look at what materials you have in the community that can be reused (eg — car bonnets) • As much as possible use pictures and arrows to direct people, rather than lots of words
3. Procedure	<ul style="list-style-type: none"> • Do a 'walk through' of the site and decide what requires specific signage • Work with community and staff to ensure message is clear and culturally appropriate. • Gather materials from within the community (possibly from the landfill site) that could be re-used for signage. • Consider working with community centre or school to design signs, maybe have a drawing or art competition • As a guide, the following information should be included in signs: <ul style="list-style-type: none"> o Name of the facility (possibly the community name, or street name) o Owner and operator of the facility (i.e. council or community name), including contact details for reporting emergency situations, making inquiries, registering complaints o Hours of operation of the site o any arrangements or facilities for separation of materials, recycling and reuse of material o Wastes which should not be dumped at the landfill (and who to contact for advice on acceptable methods for disposal of such wastes) o Areas that are not open to the public, e.g. areas under rehabilitation or construction, or hazardous disposal points o Controls over scavenging, lighting or fires, littering and illegal dumping o Prohibited materials and Listed Waste o Prohibited activities (e.g. litter on approach roads, burning waste or unauthorised disposal of waste) and the penalties for offences.
4. Recording and Reporting	<ul style="list-style-type: none"> • Weekly Log Sheet (diary) — record results of visual inspections • Waste Management Monthly Report
5. What to do when it's not working	<ul style="list-style-type: none"> • Assess damage to sign, find out why it is damaged • Erect temporary signs until more permanent signage can be arranged • Educate staff on what the signs mean
6. Management Review	<ul style="list-style-type: none"> • Quarterly — check that all signs are present and legible • Assess options for more professional signs Item

7. Work Method Statement:

Fencing

item	Comment / Action
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Performance Indicators	<p>~1800mm high wire mesh surrounds landfill area</p> <p>~Within the site there are a variety of smaller, movable fences to control litter, restrict access to dangerous areas and to guide users to the correct disposal sites.</p> <p>~Fencing and gates in good state of repair with no notable Damage Any damage to the fence is reported and repaired within one month</p> <p>Site is open only during standard business hours, and is locked outside of these hours.</p> <p>~Inspect and maintain fence regularly</p> <p>~Use simple fencing inside landfill site to restrict access to 'non active' parts of the site — simple as star pickets with flag tape or reused items such as corrugated iron</p> <p>~Low level bunding along the active stretch of the tip face makes it easier and safer for crews to reverse close to the trench without into it</p>
. Procedure	<p>Work with the community to determine the external boundary of landfill site (refer to NRETAS Siting Guidelines for more information).</p> <p>Determine fencing needs for site to ensure it is appropriate in height, material and distance.</p> <p>Assess materials at the landfill site to see if materials can be reused for movable internal fencing.</p> <p>Regularly inspect fencing for damage and repair as early as possible</p>
Recording and Reporting	<p>Weekly Log Sheet (diary) — record results of visual inspections</p> <p>Waste Management Monthly Report</p>
. What to do when it's not working	<p>Perimeter or internal fencing is damaged or not present</p> <p>Damage to fences goes for more than one month before repair</p>
. Management Review	<p>Quarterly — check actual fencing against log</p> <p>Assess options for fencing upgrade</p>

8. Work Method Statement:

Cars Collection

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> • 'Active cars' are only stored within persons yard OR at the 'active car' yard • Completely unused cars are piled up at the tip, easily accessible for road trains to collect when possible

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2. General Strategies and Procedures	<ul style="list-style-type: none"> • If car is on blocks in the street, talk to owner and tell them to move it inside, or take it to the 'active car' yard • At Active Car Yard, line cars up — bonnets up, boots off • At 'Unused Car' Yard, stack cars and line up
3. Procedure	<ul style="list-style-type: none"> • Discuss with community the need to have the old cars out at the tip and the need to have cars off of the road • Every week, drive around the community to check for cars in and around the community, remove cars as necessary
4. Recording and Reporting	<ul style="list-style-type: none"> • Tip maintenance register
5. What to do when it's not working	<ul style="list-style-type: none"> • Cars sitting in street on blocks • Cars all over the place at the tip or around community • Cars being flipped up and over at the tip • Hold a community meeting to discuss why the cars are being left around. • Offer to move cars to the 'Active Car Yard' if they have broken down • Any cars found to be non-compliant at the tip need to be addressed urgently (boots off, bonnets up)
6. Management Review	<ul style="list-style-type: none"> • Monthly check around community and in trench • Quarterly check that all cars are lined up properly

9. Work Method Statement:

Whitegoods collection

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> • No fridges, washing machines, dryers, dishwashers or any other whitegoods are put into the trench at the tip • None of the above are left lying around the community • All fridges have doors removed
2. General Strategies and Procedures	<ul style="list-style-type: none"> • Create a separate 'recycling' area at the

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	<p>tip for storing old whitegoods</p> <ul style="list-style-type: none"> Any whitegoods left on the street are picked up and taken to 'recycling' centre at tip Any whitegoods found in the trench should be pulled out and put at recycling centre Remove all fridge doors and washing machine lids for safety
3. Procedure	<ul style="list-style-type: none"> Have weekly drive around to look for whitegoods in and around the community, remove as necessary Weekly check of the landfill trench and remove any whitegoods Consider having a designated 'community clean up' day when community members can put old whitegoods out the front for collection
4. Recording and Reporting	<p>Weekly Log Sheet (diary) — record results of visual inspections</p> <p>Waste Management Monthly Report</p>
5. What to do when it's not working	<ul style="list-style-type: none"> If whitegoods found in the street, remove them immediately to the tip, and talk to the community to explain that whitegoods can't be left in the street If fridges found at the tip with doors still attached, discuss with staff the dangers of children getting stuck in the
6. Management Review	<ul style="list-style-type: none"> Monthly check of trench and around community

10. Work Method Statement:

Reusable Gear

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> No intact building materials are left in the trench at the tip Reusable items, such as fencing, posts, furnishings, corrugated iron and chipboard are all stored at the tip, and not left in the trench Household items, such as whitegoods and

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	furniture are kept separate at the landfill site for reuse within the community or sold to provide an income for the maintenance of the facility.
2. General Strategies and Procedures	<ul style="list-style-type: none"> • Create a separate 'reusable building gear' area at the tip • Ask building contractors to keep excess and leftover gear out of trench • Check in the trench weekly and pull out anything that can be reused • Think of good things to do with excess materials, for example — any excess concrete could be poured to make a storage area for car batteries at the tip • Conduct a waste audit or a visual assessment to determine which materials in the landfill could be recovered, and which materials are taking up the most room in the landfill.
3. Procedure	<ul style="list-style-type: none"> • All contractors (both Council and non-Council) are to sign in and out at Council Services Office • Explain to contractors where they should put excess material and where they can put waste • Check tip before contractors sign out <p>4. Recording and Reporting</p> <ul style="list-style-type: none"> • Contractor register book (sign in, sign out) • Tip maintenance register <p>S. What to do when it's not working</p> <ul style="list-style-type: none"> • Check trench regularly to see if there are reusable items. • Use loader or other equipment to drag items out of trench • Talk with staff to discuss how items can be reused and why they shouldn't be in the trench; and identify projects in the community to reuse items
6. Management Review	<ul style="list-style-type: none"> • Monthly check of trench • Annual check that items aren't being left in the trench

11. Work Method Statement: Reuse and Recycling

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> • As many materials as possible are reused or recycled. • Recycling programs are established for materials such as steel, aluminium, glass, plastic, paper, green waste and construction materials. • Household items, such as whitegoods and furniture are kept separate at the landfill site for reuse within the community
2. General Strategies and Procedures	<ul style="list-style-type: none"> • Define an area for the unloading and loading of items, preferably an open fronted roofed area

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	<ul style="list-style-type: none"> Where possible use colour coded bins, crates or defined bays where selected items can be placed Procure a simple crushing device for cans, or a baling machine for paper/cardboard.
3. Procedure	<ul style="list-style-type: none"> Remove bulky household items and inert building materials Separate listed wastes for possible recycling. Separate green waste for composting, mulching or fuel for fires
4. Recording and Reporting	<ul style="list-style-type: none"> Where possible, monitor and record volumes or quantities of materials that are being stored to help procure suppliers for recycling materials
5. What to do when it's not working	<ul style="list-style-type: none"> Bulky items that have been disposed of in the trench may be retrieved Small items such as cans and bottles will probably have to stay in the trench once they are there
6. Management Review	<ul style="list-style-type: none"> Monthly

12. Work Method Statement:

Burning Waste

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> No waste is burnt by households No 'burn bins' (44ga1 drums) are in the community Waste is not burnt unsupervised at the tip Only cardboard, paper and food waste is ever burnt No plastics or metals are burnt
2. General Strategies and Procedures	<ul style="list-style-type: none"> Remove burn bins from the community Compact and cover waste regularly to deter staff and community from lighting fires Separate out hazardous items in case of fire
3. Procedure	<ul style="list-style-type: none"> Ensure every household has at least one 240L 'wheelie' bin Ban the burning of waste in the community

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	<p>and educate the community about why burning waste is banned</p> <ul style="list-style-type: none">• Remove burn barrels from around the community and provide wheelie bins and a regular waste collection service• Label bins with "no burning" signs• If no other option is available, schedule burns in the landfill on low wind days to reduce the amount and volume of putrescible waste.• Instead of burning the landfill move to regularly covering the active landfill area with clean fill.
4. Recording and Reporting	<p>landfill</p> <ul style="list-style-type: none">• Track and record incidence of uncontrolled burning• Weekly Log Sheet (diary) — record results of visual inspections• Waste Management Monthly Report
5. What to do when it's not working	<ul style="list-style-type: none">• Extinguish fires whenever possible, using cover from the• Discuss any non-conformance with staff
6. Management Review	<ul style="list-style-type: none">• Monthly

12. Work Method Statement: Cardboard Burning

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none">• Cardboard and paper is kept separate from all other waste• Weekly / monthly controlled burns of cardboard / paper only• No more burning of all waste in trench
2. General Strategies and Procedures	<p>Before undertaking a controlled burn, consider:</p> <ul style="list-style-type: none">• how human health and safety and the environment will be protected during burning operations including protection of the community from the smoke;• weather conditions, especially wind direction (downwind of homes) and strength;• the minimisation of burning plastics (especially PVC);• the frequency of burning;

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	<ul style="list-style-type: none"> • measures required to meet the planning and approval requirements of the local fire authority including plans to prevent the fire from spreading outside the landfill site; • steps required to ensure refuse is completely burnt or the fire is extinguished before personnel leave the site; • training required by staff conducting the burning operations; and \ • measures to prevent people entering the landfill site during burn days
3. Procedure	<ul style="list-style-type: none"> • Separate any items that may require burning from the rest of the waste at all times <p>Designate a section of the landfill trench to isolate the burn</p>
4. Recording and Reporting	<ul style="list-style-type: none"> • Monitor low-wind days to prepare for a burn of cardboard • Plan for controlled burn, do not do it randomly
5. What to do when it's not working	<ul style="list-style-type: none"> • Any time trench found to be burning uncontrolled, extinguish as quickly as possible • Discuss with staff and community the importance of controlling the burning of waste —there might be a time when community needs to burn items for cultural reasons
6. Management Review	<ul style="list-style-type: none"> • Monthly

13. Work Method Statement: Contractor Sign In

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> • All contractors, both Council and non-Council, sign in when they arrive • All contractors sign out when they leave • All contractor waste is disposed of appropriately
2. General Strategies and Procedures	<ul style="list-style-type: none"> • Have a register book on front desk • Start with Council contractors then also work on all other contractors • As part of sign in, explain where any materials are to be dumped • Contractors to sign out also
3. Procedure	<ul style="list-style-type: none"> • Any new work contracted by Council, inform contractors to report to Council office • When contractors report to office, have them sign the register and ask them what materials they will be working

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	with <ul style="list-style-type: none">• Inform contractors of appropriate conduct in the community, including where to dispose of unused materials• Contractors to report to Council office before leaving community
4. Recording and Reporting	<ul style="list-style-type: none">• Contractor sign in book
5. What to do when it's not working	<ul style="list-style-type: none">• Contact contractor head office and inform them of non-conformance<ul style="list-style-type: none">• Investigate options for contractors to come back & clean up waste if necessary• Arrange for contractors to be invoiced for the clean-up of any wastes that are dumped without approval
6. Management Review	<ul style="list-style-type: none">• Monthly

15. Work Method Statement: *Looking after the Trenches*

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none">• At any time there will only be one active trench• Active 'face' of the trench is no more than 3m²• Trench has minimal bulky or recyclable waste, mostly only household waste• Waste is pushed up and covered regularly, as needed — not left loose and uncontrolled
2. General Strategies and Procedures	<ul style="list-style-type: none">• Refer to site plan to know where current and future trench should lie• Make sure you know how long it takes to fill a trench under ordinary circumstances• Explain to staff where the active face is, and ensure they don't dump all the way along the trench
3. Procedure	<ul style="list-style-type: none">• Regular rubbish collection from wheelie bins in

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	<p>the community</p> <ul style="list-style-type: none"> • Collected waste to be disposed of in the active face • Staff to regularly check the material in the trench and immediately remove any inappropriate items • Fence off the remainder of the landfill site and the trench to prevent staff and residents from using those sections • Push the waste up in the trench using loader or bobcat, to help it compact and to minimise how much waste is exposed
4. Recording and Reporting	<ul style="list-style-type: none"> • Landfill site plan is followed and maintained • Check Contractor Register book to know who has used the tip • Monthly reports
5. What to do when it's not working	<ul style="list-style-type: none"> • If there are inappropriate items in the trench, use the loader, or bobcat, to push or drag them out (eg — you can chain a car to the loader & drag it out) • Investigate how and why there are inappropriate things in the trench — is it Council staff? The store? Contractors? Contact that person and explain what is wrong • If there is a significant issue with a trench, you might need the dozer to get right in there
6. Management Review	<ul style="list-style-type: none"> • Monthly check of trenches • If recent non-conformance, have weekly check of trenches for 2 months until landfill site being used properly

16. Work Method Statement: Flooding and Erosion

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> • In the event of rain, water should not flow directly into the trench • All water flows away from the landfill site • No run off from landfill site • No erosion at the edge of the trench • Monitoring processes are in place to ensure any inappropriate water flows can be detected early.
2. General Strategies and Procedures	<ul style="list-style-type: none"> • Divert water flow away from the edge of the trench • Use bunding and existing landforms to guide water flow • Encourage vegetation along 'inactive' trench area to stabilise the trench sides
3. Procedure	<ul style="list-style-type: none"> • During or just after rain events, visit the site to check the direction of water flow • Note areas of pooling and flooding and use earth moving to direct water • Assess landfill site for run off and potential leachate generation. • Try to map where run off starts and ends up. If trenches constantly fill up with water when dug (due to high water table), reconsider if this method is the best for situation. • Consider using an above ground cell method if trenches remain unstable after rain events or if groundwater is known

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	<ul style="list-style-type: none">to be close to the surfaceChannel water to control run off and direct it away from nearby water coursesThis could be by digging channels, or creating watercourseswith clean materials to create an above ground bund
4. Recording and Reporting	<ul style="list-style-type: none">Document significant rain events and the impact on the landfill and trenchMonthly management report
5. What to do when it's not working	<ul style="list-style-type: none">If significant erosion of trench edge occurs, restrict access to the area until it can be stabilisedIf water is found flowing into or out of the landfill, identify the point of entry and endeavour to guide it away as early as possibleThis may take several attempts and may change after a significant rain event so it is important to monitor
6. Management Review	<ul style="list-style-type: none">Quarterly

17. Work Method Statement: Collect Bins from Community

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none">Every bin in community is emptied at least twice a weekNo bins in the community are burntNo 'burn bins' remain in the communityWheelie bins are used by households and in public places.Bins are stored within household boundary
2. General Strategies and Procedures	<ul style="list-style-type: none">All bins should have a lid and be located at each household and in public areas (eg outside store).
3. Procedure	<ul style="list-style-type: none">Supply wheelie bins to each householdExplain to community that they need to store the bin on their own propertyRegularly empty binsKeep spare bins at the depot for replacements and public events.Investigate options for acquiring wheelie bins for communityTalk to the community about the benefits of wheelie bins instead of drums; trial a few wheelie bins to demonstrate the difference to the community.

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	<ul style="list-style-type: none">Investigate whether collection vehicle will accommodate wheelie bins and/or what is required to adapt it to wheelie bins.Once you have wheelie bins for community, work on community awareness as you roll them out.You may need to install lockable posts to stop bins being knocked over
4. Recording and Reporting	<ul style="list-style-type: none">Weekly Log Sheet (diary) — record results of visual inspectionsWaste Management Monthly Report
5. What to do when it's not working	<ul style="list-style-type: none">Remove damaged bins from household and take back to depot for repairs within 3 daysAny burnt bins to be remove immediatelyTalk directly with families that are not using bins correctly, to ensure that they understand how to use them
6. Management Review	<ul style="list-style-type: none">Monthly

18. Work Method Statement: Bins Maintenance

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none">Bins are in a good state of repair, with both wheels and a lid and no significant crackingDamaged bins are removed promptly for repair or replacement and kept at the landfill area for storing of recyclables etc.
2. General Strategies and Procedures	<ul style="list-style-type: none">As bins are emptied each week, staff should report on bins that are becoming damaged (either because of wear and tear or other means)Sometimes bins may need a good wash
3. Procedure	<ul style="list-style-type: none">If possible, notify the family that their bin is damaged and it needs repairingTake the bin away to the depot or the warehouse and replace it with a spareAssess damage to the bin - if it can be repaired or must be replacedDetermine what has caused the damage — is the bin being overloaded and too heavy for the lifter, has it been intentionally damaged, are the wheels just suffering from wear and tear?If recurrent problems cause a lot of bin damage, try to solve the problem that damages the bin, rather than continue to repair binsWhere possible, repair the bin using existing stocks.Repair and return the bin promptly
4. Recording and Reporting	<ul style="list-style-type: none">Weekly Log Sheet (diary) — record recurrent repairs to individual households to help detect any patterns

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	<ul style="list-style-type: none"> Waste Management Monthly Report
5. What to do when it's not working	<ul style="list-style-type: none"> If numerous bins in the community are found to be in a state of disrepair for extended periods of time, consider ordering new stock Talk to staff to explain the need to keep bins in good condition
6. Management Review	<ul style="list-style-type: none"> Annually

19. Work Method Statement: Listed Wastes

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> All listed wastes are kept separate from the landfill trench Listed wastes are removed from the community periodically Staff understand the dangers of listed wastes and why they need to be treated differently
2. General Strategies and Procedures	<ul style="list-style-type: none"> If you collect or store Listed Waste at landfill site, store them separately and safely until removal by a licensed contractor for disposal in a licensed facility If you dispose of Listed Waste in landfill (eg bury tyres from local community), then landfill must be licensed to dispose of Listed Waste. The license only needs to cover the area where the Listed Waste is disposed. Hold a community meeting to explain what is a listed waste and how it should be disposed All contractors should be signing in and removing any listed wastes that they handle in the community
3. Procedure	<ul style="list-style-type: none"> Designate a listed waste storage area at the landfill Educate staff and community on identification and proper storage of listed wastes Regularly check the landfill trench for items such as car batteries, tyres, old paint tins
4. Recording and Reporting	<ul style="list-style-type: none"> Develop a "Listed Waste Register" to monitor volumes and sources of listed wastes, Contractor sign in register Waste Management Monthly Report
5. What to do when it's not working	<ul style="list-style-type: none"> So long as it is safe to do so, immediately remove any listed wastes found in the landfill trench — If listed waste is regularly found in household bins or in the landfill trench, contact the resident to discuss the need to separate these wastes from general waste Consider a periodic clean out of listed wastes from the community
6. Management Review	<ul style="list-style-type: none"> Monthly

20. Work Method Statement: Car Batteries

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none">• Car batteries are stacked up on a pallet• When possible, pallet-load is taken out of community for recycling
2. General Strategies and Procedures	<ul style="list-style-type: none">• Keeping batteries out of the landfill trench is the most important first step• Batteries can't be stored on metal, wooden or plastic pallets are preferable• Engage community to develop understanding of the dangers of batteries
3. Procedure	<ul style="list-style-type: none">• Designate a separate area for the storage of batteries.• Stack batteries on a pallet and fence on three sides to prevent knocking over.• Train staff in importance of separating out and safe handling• Educate community on the process and reason for disposal of car batteries.• Conduct regular collection / clean-up of car batteries in community.• Engage contractor for regular removal / recycling of car batteries.
4. Recording and Reporting	<ul style="list-style-type: none">• Develop a "Listed Waste Register" to monitor volumes and sources of listed wastes, Contractor sign in register• Waste Management Monthly Report
5. What to do when it's not working	<ul style="list-style-type: none">• Remove battery from trench immediately
6. Management Review	<ul style="list-style-type: none">• Monthly

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21. Work Method Statement: Animal Carcasses

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none">Animal carcasses are buried at a separate pit at the landfill site at a minimum depth of 1mSeparate pit is marked on the site planAll animal carcasses are buried at a separate pit at the landfill site at a minimum depth of 1m using hydrated lime or similar to expedite decomposition. This separate pit is fenced to prevent other animals scavenging.
2. General Strategies and Procedures	<ul style="list-style-type: none">Coordinate with the vet for dog cullsRegularly monitor community for animal carcassesDevelop a dedicated pit at landfill for burial of animal carcasses.Fence and sign the area to reduce the chance of the pit being used for other wastes.Ensure that the pit is deep enough to prevent other animals digging it up.Train council staff in the appropriate handling of carcasses and conduct regular monitoring within and around community to identify and collect carcasses.Set a defined timeline from detection to burial in dedicated pit.Aim for 24 hours, but 3 days is acceptable (depending on climate).Make contact details for collection of carcasses known within the community.Ensure that vet staff who visit the community are aware of the proper disposal of carcasses during times of a large cull
3. Procedure	<ul style="list-style-type: none">Nominate an area at the back of the tip, just for carcass disposalDig out trench sufficient to allow 1m cover on top of carcassesAs soon as all carcasses disposed of, fill in trench with no less than 1m of fill
4. Recording and Reporting	<ul style="list-style-type: none">Record of vet visits and planned dog (and other culls)
5. What to do when it's not working	<ul style="list-style-type: none">If large number /volume of carcasses have been inappropriately dumped, you may need to bury where you find themIf possible, transport carcasses to a more appropriate location for disposal
6. Management Review	<ul style="list-style-type: none">Quarterly

22. Work Method Statement: Emergency Response Plan

Item	Comment / Action
1. Performance Indicators	<ul style="list-style-type: none"> • There is an emergency response plan • Staff are aware of the plan • An Emergency Response Plan is in place and is reviewed regularly. • Topics include floods, Listed Wastes, fire, high wind events, workplace injury, and storm conditions. •Identify high risk seasons and schedule preparedness measures. Identify equipment and processes to manage. • The planning and location of facility should be to mitigate risks.
General Strategies and Procedures	<ul style="list-style-type: none"> • Must have a plan • Build a kit of emergency response items, including fire extinguishers and radios
Procedure	<ul style="list-style-type: none"> • Conduct a 'walk through' of waste site to identify issues that may require an emergency response. • Consider each issue and determine how you could address them in an emergency situation. • Identify possible hazards that might require an emergency response • Identify process that might reduce the risk of these hazards occurring • Contact LGANT, Northern Territory Police, Fire and Emergency Services (NTPEES) and Bushfires NT (within NRFTAS) for resources on emergency planning. • Develop an Emergency Response Plan and have it approved by council.
10. Recording and Reporting	<ul style="list-style-type: none"> • Document any incidents and the measures taken to address the situation • Develop Emergency Management Plan
11. What to do when it's not working	<ul style="list-style-type: none"> • Update and monitor Emergency Management Plan
12. Management Review	<ul style="list-style-type: none"> • After any emergency incident the response plan should be reviewed Annually

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23. Work Method Statement Auditing Litter, Waste, Bins & Cars in a Community

To be used in conjunction with 'Audit Form – community litter and hard waste'

Item	Comment/Action
Performance Indicators	Audit undertaken at 3-monthly intervals by SSM or WS. Aim to score 1 or 2 at all sites, with overall average less than 1.5. Scores of '3' addressed within one week. All work on bins and cars invoiced to relevant Ratepayers.
General Strategies and Procedures	Use Audit Form and SLAP community map (plus satellite image if useful) to plan and undertake audits. Allow approximately 1 minute per Lot.
Procedure – Undertaking Audit	Using the Audit Form, drive or walk the community filling out all columns as per instructions on Form. Explain to community members the purpose and desired outcomes of the audit. Where appropriate and permission obtained, photograph each site as a visual record, ensuring Lot identification is included in each image. Store images in InfoXpert or g-drive. Mark areas of waste and car bodies in public areas with a circle and appropriate identifier.
Procedure – Taking Action	List required Actions at bottom of Audit Form. This becomes the Work Plan for litter, waste, bins and cars. Any Lots or public areas scoring '3' to be addressed asap. Those scoring '2' to be added to scheduled work plan.
Procedure – Wheelie bins	If wheelie bins need replacement or repair, use existing spare stock at SDC Depot. If no spare stock, order thru Council Engineer. Paint Lot number on side of new wheelie bins. Use Work Order triplicate book to record work and materials per Lot for bins/stands. For TH Lots , forward WO to Accounts Officer (Linda Davies) who will raise an invoice to Tenancy Officer, Territory Housing. For non-TH Lots , forward WOs to Accounts Officer who will raise and send invoice to relevant ratepayer. Invoices will be cc'd to SSM. SSM to ensure invoices are issued.
Procedure – Car bodies	Ask car body owners to complete Vehicle Removal Consent Form. File this form as a permanent record. For car bodies in public area, remove asap to car dump. For car bodies in Territory Housing Lots, complete Work Order request form. Forward to TH Tenancy Officer at <email> or fax <89>. After Work Order issued, remove car bodies. DO NOT REMOVE WITHOUT A WORK ORDER.
Procedure – litter	For TH Lots, ensure wheelie bin/s are onsite and functional. For high amount of litter, place temporary trailer outside property and remove to landfill once clean-up complete. Inform residents that rakes are available for loan from Depot. For public areas, Works team to clean up. Where litter is immediately outside a TH Lot and obviously coming from that Lot, place a trailer outside property and ask residents to clean up. If no action, Council staff to photograph litter (obtain resident

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	<p>permission first), clean up and record time/materials on a Work Order form.</p> <p>Forward WO to TH Tenancy Officer at <email> or fax <89>.</p> <p>TH will issue a WO directly back to the SSM.</p>
Procedure – hard waste	<p>For TH Lots, place a trailer outside property and ask residents to clean up yard. Leave for one or two days. Take trailer to landfill, free-of-charge.</p> <p>For non-TH Lots, if SSM determines that hard waste poses a public health risk, SSM to ask residents to clean up yard. If required, offer to place a trailer outside yard as per TH Lots.</p> <p>For public areas, Works team to clean up.</p>
Procedure – animal carcasses	<p>Remove carcasses and bury in designated pit at landfill.</p> <p>Follow the work method statement 'Handling and disposal of dead animal carcasses'.</p>
Recording and Reporting	<p>On audit form, calculate total and average number or score per column.</p> <p>Completed Audit Form to be scanned and uploaded to InfoXpert. If too difficult to upload, email to RSM or Director Works for uploading.</p>
What to do when it's not working	<p>If the community is unusually untidy between audit schedules, initiate a Litter & Hard Waste Audit and take necessary actions.</p> <p>If not sure how to complete Audit, seek help from Waste Management Coordinator or fellow-SSMs.</p> <p>For consistent problem Lots, work with Local Board and residents towards a solution.</p>
Management Review	<p>12-month review of Audit Form, work method statement and process.</p> <p>Director Works to undertake 6-monthly check in each SDC for condition of litter, waste, bins and car bodies.</p> <p>6-monthly check that all replaced/repairs wheelie bins and removed car bodies have been invoiced to relevant ratepayer/s.</p>

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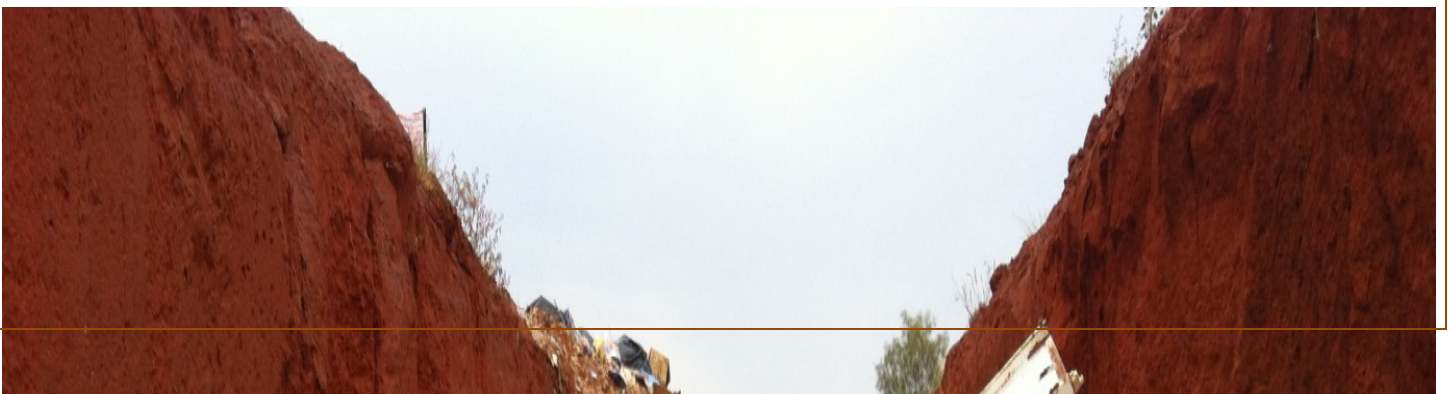
24. Work Method Statement:

ASBESTOS TESTING/HANDLING

Item	Comment / Action
1. Performance Indicators	No breaches of Operating Procedures observed or reported
2. a General Strategies and Procedures- Testing	<ol style="list-style-type: none"> 1. Photograph and GPS location 2. Take small sample for analysis. Around 3cm x 3cm is adequate. 3. Put on appropriate PPE: dust mask and gloves if only taking small sample. 4. Place sample in clear zip lock plastic bag along with written info: community; location; GPS coordinates; date; person sampling 5. Seal bag. Place this bag in a 2nd zip lock bag and seal. 6. Place in padded mailing bag. 7. Cordon off area and erect 'Danger ASBESTOS' signage. 8. Mail to CRICHTON ENVIRONMENTAL BUILDING MANAGEMENT, 20 Gleneagles Crt, Seaton SA 5023. Mobile: 0409 694 535 Fax: 08 8355 4443. Email crichto@bigpond.net.au 9. Raise and send a Purchase Order, \$30/sample. 10. If sampling confirms Asbestos see 2b below
2.b General Strategies and Procedures-Handling	<ol style="list-style-type: none"> 1. Photograph and GPS location 2. Attempt to identify and contact party responsible for dumping asbestos. 3. If located on land not managed by Council, notify responsible agency for them to action. 4. If on Council managed land: 5. If friable (powdery or flaky), DO NOT HANDLE. Risk of inhaling fibres is high. Cordon off area and erect 'Danger ASBESTOS' signage. Arrange asbestos removal contractors. 6. If not friable, staff employ appropriate PPE (long sleeve shirt, long trousers, paper overalls, closed in footwear, clear safety glasses, dust mask/respirator with canisters, gloves). 7. Wrap and tape asbestos in suitable plastic. Ensure all asbestos is collected. 8. Transfer carefully to Asbestos Disposal Pit. 9. Remove overalls, mask and gloves, place in pit. 10. Bury all under minimum 1m soil. 11. If pit greater than 3m depth, can deposit second layer on top at later date. 12. Wash boots, glasses, and clothes.
4. Recording and Reporting	GPS burial location and lodge relevant information and coordinates in Council's Asbestos Disposal Register
5. What to do when it's not working	If in doubt, assume it is asbestos and treat accordingly. If inappropriate actions taken by others, halt work and report immediately to Management.
6. Management Review	Annually.

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Section Notes



Section 7 Forms

Form	Page
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3. Monthly Inspection Report	115
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First Landfill Site Assessment

Condition Score

1- Very Good, No work required 2 – Satisfactory -Scheduled work required

3 – Unsatisfactory- Immediate

Work Required





DESCRIPTION	SCORE	Condition Score Criteria
Entrance Road to landfill from Community		1-Clearly sign posted- side road turn offs blocked 2-Marked- few signs- side access roads open 3- Poorly marked- no signs-side roads open
Landfill Fence		1-Complete- gates in order-no work required-meets new site plan requirements 2-Partial- needs repairs, or addition to create separation bays and Council operational area 3-None-in disrepair-Installation required
Traffic Flow		1-Traffic flow marked- separation bays defined- public access limited to separation bays- pit access restricted- All areas clearly signposted and fenced 2- Poor traffic flow indicators- little or no clear waste separation- public access areas not clear- little or no internal fencing 3- No traffic flow indicators, no waste separation bays, Public can access all of compound
Pit Condition		1- Waste Cell methodology in place, Adequate cover fill, evidence of regular CONSOLIDATE-COVER-COMPACT 2-Poor practices evident-some listed waste present- inadequate cover fill and compaction techniques-pit contains items that need to be extracted 3-No obvious methodology in place- no covering or compaction- contains listed waste-contains scrap metals
Scrap Metal Area		1-Clearly marked steel area-consolidated regularly-safe from wind blow 2- Poorly defined area-poorly consolidated-dangerous to public and staff 3- No clearly defined metal area-not consolidated- dangerous to public and staff- metal in various locations
Vehicle Area		1-Designated vehicle area, tidy. Well planned for 5 year collection, adjacent current landfill site 2-More than one vehicle area, scattered over large area, close too or adjacent current landfill site 3- No clearly defined vehicle area, other rubbish mixed with vehicles, not adjacent current landfill site
Carcass-Septage pits		1-Separate special purpose pits-clearly marked-covered with soil-new pits ready and appropriately signposted 2- Separate special purpose pit- not in landfill compound- poorly signposted-no new pits 3- No special purpose pits- carcass present in main pit- unknown location of previous dumps
Separation Bays		1-Separation bays listed in Manual in place-well sorted-clearly signposted-correct site location 2-Separation bays present-some bays not present-untidy-not well sign posted-contain impurities-consider location change for better use 3-No separation bays
Landfill Compound Legacy Waste/Old pits		1-Site has been cleared of legacy waste-legacy waste contained and capped-old pits capped and fenced 2- Legacy waste present- not affecting site operations-old pit/s partially complete- will need consolidating and capping 3-Site has multiple legacy waste piles-old pits not capped-legacy waste affecting present site operations
Broad Area Legacy Waste		1- Area has been cleared of legacy waste-mullock heaps consolidated and capped- no ground waste present-no known asbestos deposits 2- Area has legacy waste-mixed waste piles, builder waste-scrap metal-access restricted off main tip road-no further dumping can take place-asbestos location /s not known 3-Area has wide spread mixed waste piles, builder rubble piles-wide spread scrap metal-vehicles-access not restricted off main road to tip-new waste piles evident- asbestos location/s not known
Site Ground Water controls		1-Pit has bunds in place-no evidence of water pooling-site has adequate gradient to move water away from waste areas- site water diverted to evaporation pond- alternative wet weather dump area present

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DESCRIPTION	SCORE	Condition Score Criteria
		2-Pit has bunds, not fully functional-some evidence of water pooling on site-insufficient gradient to divert ground water away from waste areas-no designated wet weather alternative dump 3-Pit has no bunds-large scale water pooling evident-site has little or no gradient to move water from waste areas-
Asbestos Pit		1-Site has clearly marked asbestos area-fenced-asbestos register in place-previous asbestos dumps known and marked 2-Site has asbestos area/s-not properly fenced or adequately signposted-previous asbestos dumps not known 3-Site has no asbestos area-asbestos locations unknown

Landfill Sketch/or satellite image- Draw Current Pit location, boundary fences, separation bays, special purpose pits-internal road ways and fences

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WEEKLY LANDFILL INSPECTION REPORT					
Location:		1 Inspection per week			
Staff:		Submit to SSM/SSC			
Week Ending:		by 2pm Every Friday			
1=	Inspected item O.K- no work required				
2=	Inspected item requires work- Work carried out and completed				
3=	Inspected item required work- Work to be scheduled				
Score 1, 2, or 3 next to each item					
Fill out inspection day		Score 1-2-3			
		Mon	Tue	Wed	Fri
1) Access Road -Clear of Rubbish					
2) Fencing- Intact-no holes & gates working					
3) Pit Condition- Only domestic waste, cover fill on					
4) Separation Bays- Tidy, sorted, only listed items					
5) Signs and markers-All in place					
6) Car Area- Cars in area, boots and bonnets off-safe					
7) Scrap Metal-Pile consolidated, safe					
Work to be Scheduled					
Tick and initial on days work was done					
Actions Carried Out This Week		Mon	Tue	Wed	Fri
Listed Waste removed from pit					
Waste Covered					
Waste Pushed up, compacted &covered					
Separation Bays Sorted					
Metal Removed from pit					
Staff Signature		SSM/SSC Signature			Office Use
					Date Received
					Data Entered
*Give to SSM every Friday		*Scan to Director Every Friday			

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MONTHLY LANDFILL AUDIT

Location	
Date	
Assessor	

DESCRIPTION	SCORE	Condition Score Criteria
1. Entrance Road to landfill from Community		1-No Rubbish 2- Clean Up Required- Scheduled 3- Immediate clean up required
2. Landfill Fence		1-Complete- gates in order-no work required 2-Partial- needs repairs, or additions 3-None- Installation required
3. Landfill Operating Area		1-Public Access Controlled, separation bays in order, pit area locked off and tidy 2- Public access marked but not, poor traffic flow indicators, untidy site causing safety risks 3- Public can Access all of compound, no traffic flow indicators, significant safety risks
4. Pit Condition		1- Waste Cell methodology in place, Adequate cover fill, evidence of regular CONSOLIDATE-COVER-COMPACT 2-Poor practices evident-some listed waste present in pit, inadequate cover fill and compaction techniques 3-No obvious methodology in place, no covering or compaction, contains listed waste
5. Scrap Metal and tyres		1-Clearly marked steel/tyre area, consolidated regularly, safe from wind blow 2- Poorly defined area, poorly consolidated, dangerous to public 3- No clearly defined area, not consolidated, dangerous to public
6. Vehicles		1-Designated vehicle area, tidy. Well planned for 5 year collection, adjacent to current landfill site 2-More than one vehicle area, scattered over large area, close to or adjacent to current landfill site 3- No clearly defined vehicle area, other rubbish mixed with vehicles, not adjacent current landfill site
7. Carcass-Septic/Medical pits		1-Separate pits-fenced, away from main pit, clearly marked, covered with soil 2- Separate pits, not in landfill site, poorly signposted 3- No separate pits, carcass's presently in main pit
8. Public Drop Off Area		1-Separation bays sorted, signposted and free of impurities in place. General household rubbish bay clean 2-Separation bays present, untidy, not well sign posted, contain impurities 3-No separation bays for listed waste
Assessors Notes:		



Vehicle Relocation Consent Form

I, _____

Living at Lot Number _____

In the Community of _____

Consent to the removal of a Vehicle or Vehicles

from Lot _____ by a representative of the Council.

The vehicle or vehicles are non-operational and will be moved to the car storage area at the landfill site for safety reasons.

The vehicle remains the property of the registered owner.

Vehicle Make and model Registration, VIN number, Colour

Resident's Signature _____

Date _____

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CAR BODIES IN TERRITORY HOUSING LOTS

Community	
Audit date	
Submitted by	

The following car bodies in Territory Housing lots have been deemed unsafe and should be removed to the Council's car body storage area near the landfill.

Territory Housing Lot No	Number car bodies

Email to:

Executive Director, Territory Housing – Central Australia	len.griffiths@nt.gov.au
Manager, Environmental Health – Central Australia, NT Dept. Health	fionaM.smith@nt.gov.au
Environment Manager, NT Dept. Lands Planning Environment	peter.bannister@nt.gov.au
glenn.marshall@centraldesert.nt.gov.au	

Central Desert Shire Council

[illegible]

Central Australian Remote Landfill Operating Manual



WASTE DISPOSAL FEES AND INSTRUCTIONS FOR CONTRACTORS

Contractors are fully responsible for management and disposal of their own waste.

Contractors Business Name _____
Contractors Site Representative _____
Postal Address _____
Phone Number _____

Location of Works (Lot No. or description) _____
Start Date: _____
Expected Completion Date: _____

GENERAL WASTE

To be disposed in landfill pit. Follow Council staff instructions.

LISTED WASTE

Tick relevant boxes for expected waste:

- | | | |
|--|-----------------|----------------|
| <input type="checkbox"/> Metal | \$ /m3 | |
| <input type="checkbox"/> Demolition and/or construction rubble | \$ /m3 | |
| <input type="checkbox"/> Chemicals/paints | \$ /litre | |
| <input type="checkbox"/> Waste oil | \$ /litre | |
| <input type="checkbox"/> Tyres | \$ /small tyre. | \$ /large tyre |
| <input type="checkbox"/> Batteries | \$ /battery | |

All of the above must be disposed separately at signposted locations:

ASBESTOS

- ☐ Tick box if asbestos to be disposed as part of this Contract
Council **MUST** be notified if asbestos is identified, and requires disposal.
Asbestos **MUST** be fully wrapped before transfer to landfill, as per Aust Standard xxx
Contractor to ensure Shire staff accompanies Contractor to disposal site
Asbestos to be covered immediately after disposal

FEES

General waste. \$ per cubic metre.

Listed waste disposal fees as written above.

Asbestos burial fee. \$ per cubic metre of trench utilised, including cover volume.

Fee-for-service waste disposal by Shire may be negotiated upon request

LANDFILL ACCESS

Landfill pit is permanently locked.

Contact Shire staff when disposing of waste.

ILLEGAL DUMPING

Any dumping outside of instructions incurs the following fees.

Listed wastes in general rubbish pit

General waste in wrong location \$300/m3 plus clean up costs

Central Australian Remote Landfill Operating Manual



CENTRAL DESERT
REGIONAL COUNCIL
Two ways :: one outcome



MacDonnell
Regional Council

Risk Assessment Form

A) Task Description		β) Date of Work :		C) Date Prepared:
		Time Task start:		
		Time Task Completed:		
D) Prepared By:				
E) Task	F) Identify hazards	G) Develop controls	H) Determine Residual risk	I) Implement Controls
(J) Determine overall task risk level after controls are implemented				
Low(L)	Moderate (M)	High (H)	Extremely High (E)	

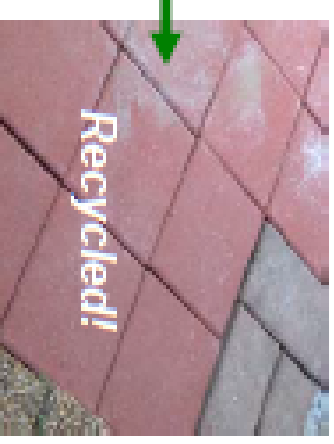
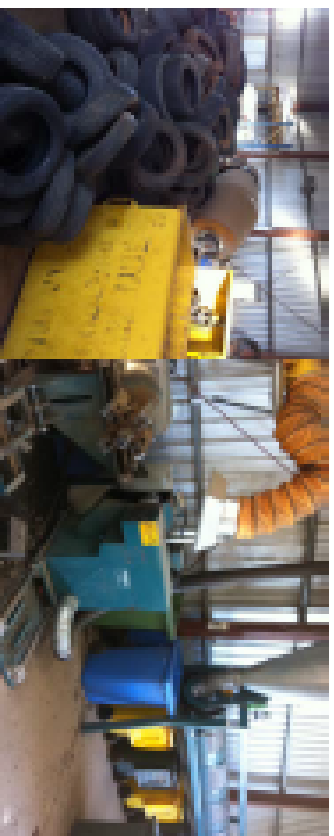
TYRE RECYCLING IN YOUR COMMUNITY

The Shire returns OLD TYRES from YOUR COMMUNITY to Alice Springs for recycling.

They are turned into products like playground soft-fall, rubber pavers, door-mats, mulch and mating around poles.

This is all done in Alice Springs by Alice Waste Disposal – local recycling.

The door-mat near here is made from recycled tyres that came from this community.



*Help us protect
the environment
Drop your used
tyres at the landfill.*