



LITCHFIELD  
COUNCIL



# Waste Strategy 2018 – 2023

*...it all comes back to reuse and recycling*

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## Litchfield Council: setting our direction in waste management

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*Together, Council and the community will work to **Reduce** the amount of waste we generate, **Reuse** what we can and **Recycle** waste resources to reinvest back into the community, enhancing our municipality as “the best place to live in the Top End.”*

In 2016, Litchfield Council commenced development of a waste strategy for the Municipality. Council in its 2016-2020 Strategic Plan identified the development of a waste strategy as essential to developing improved and more sustainable waste management practices to support our growing population, which now exceeds 25,000.

This Waste Strategy outlines Council’s plans to continue to improve the way we manage waste in the Litchfield Municipality. It identifies targets and strategies to achieve our goals within the broader regional context, while delivering Council’s overall strategy for a cost-effective waste management service to our community.

This Strategy sets out the current waste situation, the challenges Council faces, the strategic context and the five focus areas that Council will concentrate on over the next five years. Additional information supporting this Strategy can be found in the accompanying Background and Discussion Paper used as the basis for developing this Strategy.

This paper is available on Council’s website [www.litchfield.nt.gov.au](http://www.litchfield.nt.gov.au).





## Waste management in Litchfield: the current situation

Council's waste management service includes three waste transfer stations (WTS) located at Humpty Doo, Howard Springs and Berry Springs. Once waste is brought to any of these transfer stations, it is either processed and on-sold back to the community, goes on to other recycling ventures or goes to the only landfill facility in the Top End - the City of Darwin's Shoal Bay facility near Leanyer. People are responsible for the delivery of their waste and recyclable material to our transfer stations. Mixed waste is deposited into skip bins, which are then transported via a contractor to the Shoal Bay landfill. Recyclables are collected in front lift bins and processed at a privately owned and managed materials recovery facility in Berrimah, Darwin. Bulky materials such as concrete, green waste, wood waste and scrap steel are stockpiled and recycled or reused offsite.

Regarding quantities, Council's 2016-17 waste figures are shown as a breakdown of waste types (in tonnes) of material received at Council's transfer stations. Council has calculated the proportions of total waste received at the transfer stations that is recycled.

Material	Destination	Unit
Mixed waste	Landfill at Shoal Bay	8683 t
Scrap metal	Sold to recycler	1207 t
Mulch	Sold for reuse	4313 t
Crushed concrete	Sold for reuse	616 t
Wood mulch	Sold for reuse	271 t
Cardboard	Collected by recycler	142 t
Paper, glass, cans and plastics	Collected by recycler	129 t
Batteries	Collected by recycler	109 t
Used oil	Collected by recycler	54 kL
Tyres	Collected by recycler	23 t

Combines  
as dry  
recyclables

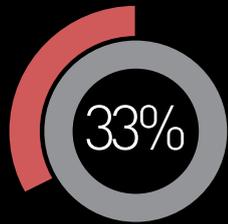
\* estimate only as assumptions made to convert some volumes to tonnes





## Recycling: where we stand

### Total recovery rate



Litchfield WTS



National Average

Our figures indicate that Humpty Doo WTS receives and sends to landfill about the same amount of waste as Berry Springs WTS and Howard Springs WTS combined. When all materials are considered, the diversion from landfill is around 31%, thanks largely to mulch and wood waste sales, concrete crushing and the collection of scrap metal. With other states having diversion from landfill rates of around 60%, there is work to be done in Litchfield to increase recycling, especially for dry recyclables, which has significant scope to expand from its current rate of around 3%.

Waste Transfer Centre	Humpty Doo	Howard Springs	Berry Springs	Combined
Vehicles (trips per annum)	69 750	64 568	Data N/A	-
Total waste generated <sup>^</sup>	8067 t	3139 t	2188 t	13 394 t
Total waste to landfill	4952 t	2029 t	1709 t	8683 t
Total waste recycled	2732 t	1046 t	437 t	4215 t
Total recovery rate <sup>^^</sup>	34%	33%	20%	31%
Dry recyclables <sup>^^^</sup>	181 t	105 t	86 t	372 t
Dry recyclables rate	2%	3%	4%	3%

<sup>^</sup> estimate only as assumptions made to convert some volumes to tonnages

Total recovery is considered all recyclables as a portion of the total waste generation. It is interesting that Humpty Doo WTS does not significantly outperform Howard Springs WTS on a recycling percentage basis, even after considering the site upgrades at Humpty Doo WTS completed in 2012. This suggests that infrastructure improvements at the WTSs must be complemented by programs to encourage a change in recycling efforts.



## What are our key challenges?

**Council faces challenges in providing a cost-efficient service that meets community needs and values the environment. These challenges are:**

<b>Cost pressures from increasing fees for waste disposal at the Shoal Bay Landfill</b>	The Shoal Bay landfill is the only such waste disposal in the Top End.
<b>Community expectations for a clean, efficient and cost-effective waste service</b>	Revenue from waste management does not generate income for Council; the waste charge paid by households balances the ongoing costs associated with operation, recycling and disposal.
<b>Low recycling rates for household</b>	Diversion of recyclable waste from landfill, at 33%, significantly outperforms the NT average of 9%. However, other jurisdictions such as the ACT, NSW, SA and VIC all average over 60%. This gap is primarily a result of low collection of household dry recyclables in Litchfield (such as paper, cardboard, glass, plastic, etc) and no viable destination for food organics.
<b>The need to gather more data to complete the picture</b>	We need to gain a greater understanding of the composition of loads that enter the transfer stations identify where our efforts are best targeted.
<b>Growth of smaller 'urban style' lots</b>	Future urban residential development at Holtze and expansion of residential development at Coolalinga and other Rural Activity Centres may require a different service level than rural lots.



## The strategic context

### *The strategic context for waste management is important to understand.*

Every level of government has a role to play in working with the community to see waste managed in an economic and sustainable manner.

The **National Waste Policy 2009** has four key aims that relate to avoiding the generation of waste; managing waste as a resource; treating waste in a safe, scientific and environmentally sound manner ;and contributing to sustainability improvements. These aims are captured in the waste management hierarchy.

Council is mindful of the **NT Waste Management Strategy 2015-2022** and its objectives. The NT Strategy states:

*“Waste is a significant environmental issue. Disposal of waste consumes land, produces pollution to the atmosphere, soil and groundwater, and represents a loss of potential resources including embodied energy and materials.”*

**Council’s Strategic Plan 2016 – 2020** comprises four priorities for our community, and within those, we work on 20 outcomes that we know matter to our communities. This is underpinned by actions taken to ensure an effective and sustainable Council. The Waste Strategy is a key element to delivering the Litchfield Council Strategic Plan 2016 – 2020, and Council’s vision of making Litchfield the best place to live in the Top End.



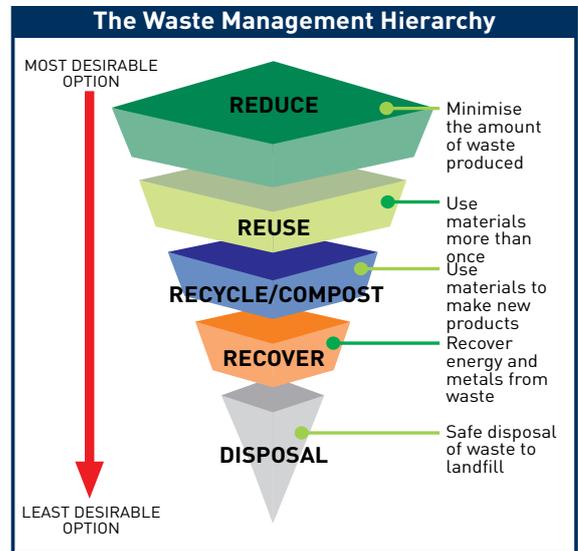
<b>Everything you need</b>	The transfer stations represent essential infrastructure required by the community.
<b>A great place to live</b>	Residents often use the transfer stations weekly, so with an increased focus on site layout and amenity, the stations can offer an improved user experience.
<b>A beautiful natural environment</b>	Efforts to increase resource recovery will lead to a more sustainable community in Litchfield. Reduced litter and illegal dumping will improve the amenity and protect the renowned natural environment.
<b>A Vibrant Economy</b>	Reuse and recycling can create employment opportunities inside the Litchfield municipality rather than sending waste outside the Council area.

# Priority #1 Everything you need

This priority encompasses Council’s approach to waste management. Council’s strategic goals for waste management are:

- Waste to landfill is minimised, along with disposal costs to residents, through a combination of incentives, redesigned WTS processes, and community education.
- Revenue is maximised from waste products, such as glass, steel and green waste.
- Littering and dumping enforcement methods are investigated.
- The location and function of a future new regional waste facility meets Litchfield’s future needs.

Priority # 1: Everything you need	Council Role							For more information
	Service Delivery	Advocacy	Community Engagement	Resource Fund	Regulations	Partnership		
<b>Roads</b>								10 Year Road Programme
Programmed road upgrades and maintenance to safe standards, including school zones	●							
Accident black spots are policed and signed to reduce avoidable injuries		●						
Bike-friendly roadways designed, with designated pathways, where possible	●						●	
Roads are protected from undue wear due to heavy machinery						●		
Traffic management on major arterial roads (e.g., Stuart Highway) enables peak traffic flow		●						
<b>Public Transport</b>								
Gaps in bus service and frequency are filled		●						
People who are isolated are served with additional transport options		●						
<b>Waste</b>								10 Year Waste Management Plan
Landfill is minimised, along with disposal costs to residents, because of a combination of incentives, redesigned WTS processes, and community education	●		●		●			
Revenue is maximised from waste products, such as glass, steel and green waste				●		●	●	
Dumping enforcement methods are investigated							●	
The location and function of the proposed Regional Waste Facility meets Litchfield’s current and future needs		●						
<b>Cleanliness</b>								
The quality and efficiency of roadside management is reviewed and improved	●							
<b>Water</b>								
Planners and utilities provide quality water supply, drainage and sewage systems, for residential, recreation and commercial purposes		●						
<b>Drainage</b>								10 Year Drainage Improvement Plan
Programmed drain upgrades and maintenance to prevent wet season flooding and enable routine drainage	●							





## What you told us: our 2017 waste survey

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To guide the development of a waste strategy, Council sought nominations and formed a community reference group comprised of eight residents who volunteered to bring community perspectives to the project. We also engaged directly with Litchfield residents through a community survey. Over a period of ten days in February 2017, Council received 937 responses to our 15-question survey, a fantastic response! What you told us was interesting:

- 97% of residents thought the waste management service at the transfer stations was either great or average, with only 3% saying it was poor.
- Nearly half of residents use our waste transfer stations once per week. A quarter use it multiple times per week and the other quarter less than weekly.
- Over 90% of residents sort their recycling at home.
- 70% of residents thought recycling was important.
- 69% of residents thought Council should not offer a kerbside waste collection service, further demonstrating the community supports for the existing transfer station model.



## New regional waste management facility

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The construction of a new regional landfill, earmarked to be within the Litchfield Municipality, will have a great benefit to Council as well as the broader region. A new landfill provides two strategic opportunities: it provides an alternative and competition to Shoal Bay landfill and Council will have a shorter haulage distance, resulting in lower costs.

The Shoal Bay landfill facility still has considerable capacity to expand, with estimates that there are several decades of airspace available. The greatest threat to that airspace is a cyclone event or some other natural disaster resulting in widespread generation of green waste and demolition waste. In such a scenario, the Shoal Bay landfill would likely exceed its capacity from one single large event. At this point in time, the need for an emergency waste disposal site is the greatest priority (rather than a fully operating landfill alternative) and work is currently being led by Top End Regional Organisation of Councils (TOPROC), of which Litchfield Council is a member. An emergency-only waste facility has marginal benefit to Litchfield Council's waste management service; which is a reduction in the risk that the transfer stations become overstretched during clean-up after a major natural disaster event.



## Our strategy explained: five focus areas and five years of actions

Council has considered how the Priorities outlined in *Council's Strategic Plan 2016-2020* relate to our waste challenges and we have identified five overarching goals for our Waste Strategy, outlining what we want to achieve for each area.

Our Waste Strategy includes a series of actions for the next five years; these actions have been mapped with a timeline. The actions are summarised below and described in more detail on subsequent pages. Where costs are known year on year, these are provided. Some actions identify infrastructure upgrades; these upgrades are excluded from the action tables as their costs are not yet known.

The results of actions undertaken in the first five years will guide Council towards a further set of actions for the following five years.

Focus area	Description	Measured by
<b>1 Continuous improvement in waste disposal services to optimise savings on costs</b>	Council provides waste services on a user-pays basis. That is, the cost of the service is paid by ratepayers through an annual charge.  Council aims to control costs while maintaining a consistent level of service.	The cost per tonne of waste throughput via the annual waste charge is static or lower year on year <sup>1</sup>
<b>2 Reduce waste to landfill</b>	Recycling is an opportunity to: <ol style="list-style-type: none"> <li>1 avoid the environmental hazards of landfill</li> <li>2 relieve pressure on extraction of raw materials and energy</li> <li>3 preserve our environment</li> <li>4 promote employment opportunities in the waste industry</li> </ol>	The amount of dry recyclables collected is >15% of the total waste collected <sup>2</sup>
<b>3 Reduce incidence of dumped rubbish and litter</b>	The Litchfield Municipality is renowned for its natural beauty. The presence of litter and illegal dumping affects the visual amenity for residents and visitors.	Baseline established of the incidence of illegal dumping
<b>4 Maintain overall customer satisfaction of the waste service</b>	Our community was broadly satisfied with the waste transfer stations in the 2017 survey, so the challenge lies ahead to continuously improve and lift the user experience, especially as our population grows and changes.	> 95% of residents think the service at the transfer stations is satisfactory or better
<b>5 Advocate on behalf of the community</b>	Council is committed to advocating to government and stakeholders on a broad range of waste issues on behalf of the community.	Council drives change and support through other levels of government.

1. Taking into account increases in CPI, population and external landfill charges.

2. Assumes level of service remains unchanged

	Year 1	Year 2	Year 3	Year 4	Year 5
	<b>\$146 500*</b>	<b>\$160 000*</b>	<b>\$60 000*</b>	<b>\$30 000*</b>	<b>\$27 000*</b>
1	1.1 Tender for waste haulage				
	1.2 Ensure service level matches community expectations				
			1.3 Develop Berry Springs and Howard Springs landfill remediation plans		
	1.4 Provide free green waste disposal for the month of November				
		1.5 Prepare disaster waste plans			
		1.6 Unlock value in dry recyclables			
2	2.1 Conduct Waste Audits				
		2.2 Implement incentives to boost recycling			
	2.3 Support home separation of recycling				
		2.4 Support food waste mgmt. at home			
		2.5 Invest in waste education			
		2.6 Rename waste transfer station to resource recovery centre			
		2.7 Investigate potential for a social enterprise to operate a dump shop			
3	3.1 Establish and engage with community action group				
			3.2 Establish by-laws regarding litter and illegal dumping		
4	4.1 Complete operational improvements at Berry Springs				
	4.2 Improve Humpty Doo recyclable containers drop-off				
	4.3 Develop branding for Council's Community Grants Scheme				
	4.4 Improve WTS safety				
				4.5 Review master planning for Howard Springs and Berry Springs	
				4.6 Improve WTS amenity	
5	5.1 TOPROC development of emergency waste facility				
	5.2 Product stewardship				
	5.3 Open dialogue with businesses				
		5.4 Waste planning for new land development			
	5.5 Appropriate disposal of hazardous waste				

Note: Details on costs are provided in subsequent action descriptions

\* Estimated

## 1 Continuous improvement in waste disposal services to optimise savings on costs

**Measured by:** The cost per tonne of waste throughput via the annual waste charge is static or lower year on year

<p><b>1.1 New waste haulage contracts</b></p>	<p>Council's previous five-year transport contract for waste haulage to Shoal Bay landfill expired in December 2016; an extension to the contract was exercised. In early 2018 Council will begin a new contract for waste disposal. The opportunity with the next contract is to separate out the steel collection from the waste haulage – at present Council earns no revenue from the scrap. A separate steel contract could result in revenue to Council of up to \$20,000 per year.</p> <p>Council will consider the potential impact of population growth over the term of the next contract. This will necessitate flexibility in both directions: fewer collections may be needed with successful increases to recycling, while more may be necessary if the rapid population growth continues.</p> <p><b>Timeframe for action:</b> By early 2018</p> <p><b>Capital consideration:</b> \$5000 for tender process (contractor)</p> <p><b>Operational consideration:</b> To be determined with tender process</p>
<p><b>1.2 Ensure service level matches community expectations</b></p>	<p>A survey undertaken in 2017 found that the community was satisfied with the existing transfer station system. Council will ensure that this service continues to meet the needs of the community as the population grows and changes over time.</p> <p>Council will include in its annual community survey questions relating to the performance of, and satisfaction with, Council's waste management service. In the fifth year, another waste management specific survey, similar to the 2017 waste survey will be conducted to monitor Council's progress of its Waste Strategy and community perceptions and satisfaction in greater detail. Since the 2017 survey found a willingness for residents to respond to an online survey, this will be the primary method of delivery.</p> <p><b>Timeframe for action:</b> Yearly</p> <p><b>Capital consideration:</b> \$2000 for 5th year survey promotion</p> <p><b>Operational consideration:</b> Staff time to review annual data</p>
<p><b>1.3 Develop Berry Springs and Howard Springs landfill remediation plans</b></p>	<p>An old landfill site that is no longer in use exists at each of the Berry Springs and Howard Springs sites. At present, the sites have an interim cap of soil in place, and, at some point in time, landfill remediation will be needed. Council has considered this liability and determined that Council will first need to develop a landfill closure plan that estimates the capital costs associated with remediation, followed by investigation of funding options for implementation.</p> <p><b>Timeframe for action:</b> Year 3 to 5</p> <p><b>Capital consideration:</b> \$5000 for each closure plan (contractor)</p> <p><b>Operational consideration:</b> Nil</p>
<p><b>1.4 Continue free green waste disposal in November for 2018 to 2020</b></p>	<p>After successful trials in 2016 and 2017, Council will continue to offer free green waste disposal during the month of November for three further years to encourage clean-ups before the cyclone season. This will be reviewed in 2021. Tonnages to the WTSs will be monitored to determine any long term financial and operational impacts.</p> <p><b>Timeframe for action:</b> Year 1 to 3</p> <p><b>Capital consideration:</b> Nil</p> <p><b>Operational consideration:</b> \$5000 per year in forgone fees</p>

<p><b>1.5 Prepare disaster waste plan for each site</b></p>	<p>Council will work with Northern Territory Emergency Services and the Department of Infrastructure, Planning and Logistics (Engineering Group) to designate how and where waste will be stockpiled in the event of an emergency. This will be documented in a municipality disaster waste plan for each WTS.</p> <p><b>Timeframe for action:</b> Year 2 to 3</p> <p><b>Capital consideration:</b> \$5000 per site</p> <p><b>Operational consideration:</b> Staff time for meetings &amp; drafting plan</p>
<p><b>1.6 Unlock value in dry recyclables</b></p>	<p>Recovery of dry recyclables such as paper, cardboard, plastics and glass is currently performed at a cost to Council; this covers the collection and processing at a materials recovery facility. The recyclables have value, but this is dependent on effectiveness of separation of items.</p> <p>Council will first need to boost recycling tonnages and secondly identify an incentive that encourages residents to spend the time necessary to separate the recyclables into individual bins. With recyclables separated, Council will be able to negotiate a more favourable collection price, which should result in a lower expenditure for the waste service.</p> <p>Council will explore opportunities for reuse of recycled materials collected, examining business cases for recycling particular products on site for resale and reuse, including partnering with businesses and/or neighbouring Councils. In particular, Council will investigate the potential to recycle glass for local reuse, including potential funding options.</p> <p>Should the costs/benefit analysis of a recycling shed or shelter be favourable, and funding be available, Council will seek to lift recycling rates through providing a purpose-built recycling shed at one or more of the transfer stations.</p> <p><b>Timeframe for action:</b> Year 2 to 3</p> <p><b>Capital consideration:</b> \$40 000 for a cost/benefit analysis Construction cost – to be determined</p> <p><b>Operational consideration:</b> To be determined</p>

## 2 Reduce waste to landfill

**Measured by:** The amount of dry recyclables collected is >15% of the waste sent to Shoal Bay

<p><b>2.1 Conduct waste audits</b></p>	<p>Waste audits are the first step necessary for Council to quantify the amount of recyclables and food waste being sent to landfill. At Litchfield, this would be achieved by diverting randomly selected vehicles to a separate tipping area where the loads can be visually inspected.</p> <p><b>Timeframe for action:</b> Year 1</p> <p><b>Capital consideration:</b> \$15 000 for waste audit (contractor)</p> <p><b>Operational consideration:</b> Nil</p>
<p><b>2.2 Implement incentives to boost recycling at each WTS</b></p>	<p>The waste community survey found that nearly 70% of residents preferred the current waste service provided through the transfer stations over a Council-run kerbside collection.</p> <p>70% also believed recycling was very important; however the low capture rate of household dry recyclables relative to other jurisdictions indicates that either disposal of recyclable material as general waste is too easy or recycling is too hard.</p> <p>Council will first try to boost recycling using the current infrastructure. This is important as past upgrades to Humpy Doo have not resulted in a noticeably better capture of household recycling than Howard Springs or Berry Springs.</p> <p>The waste audits will shed light on how materials are arriving at WTSs and whether Council can add additional infrastructure to encourage recycling.</p> <p>Council will trial a mixture of incentives over a six-month period to see which incentives promote the greatest increase in recycling. Should it be found that recycling is significantly improved by providing covered facilities, such as a shed, then the costs and benefits of such a purpose-built structure will be considered at the conclusion of the trial.</p> <p><b>Timeframe for action:</b> Year 2</p> <p><b>Capital consideration:</b> \$20 000 for trials</p> <p><b>Operational consideration:</b> One operator assigned for 6 months - \$80,000</p>
<p><b>2.3 Support separation of recyclables at home</b></p>	<p>The waste community survey found that when residents recycle, over 90% do the separation at home.</p> <p>Council requires two further pieces of information from the waste audits in order to best support residents: the types of recyclables that are going to landfill and how recyclables are being delivered to the WTSs (such as in garbage bags mixed in with waste or separated in plastic containers).</p> <p>Any further action Council takes will be informed by the audit results. Education material will be developed based on the types of recyclables that are being landfilled and Council will examine if providing dedicated recycling containers is likely to help residents.</p> <p><b>Timeframe for action:</b> Year 2</p> <p><b>Capital consideration:</b> \$5,000 for development of educational materials and if required, \$15,000 for home recycling containers</p> <p><b>Operational consideration:</b> Nil</p>

<p><b>2.4 Support food waste management at home</b></p>	<p>Council will first determine the amount of food present in household waste using the audits. Any further action Council takes will be informed by the audit results. If there is only a small amount of food waste, Council will attempt to remove barriers to composting by arranging how-to workshops and providing pamphlets to transfer station users.</p> <p>If the audit finds large amounts of food waste, then Council will investigate the benefits of providing information about home composting kits.</p> <p><b>Timeframe for action:</b> Year 2 to 3</p> <p><b>Capital consideration:</b> \$5000 for development of educational materials</p> <p><b>Operational consideration:</b> Nil</p>
<p><b>2.5 Invest in waste education</b></p>	<p>Planned changes arising from this Strategy will require the allocation of additional education resources beyond the capacity of existing staff. Council will investigate external funding options such as through the NT EPA (grants up to \$20,000); however this funding is project based and not recurrent.</p> <p><b>Timeframe for action:</b> Year 1 to 2</p> <p><b>Capital consideration:</b> Nil</p> <p><b>Operational consideration:</b> \$5000 per year</p>
<p><b>2.6 Rename Waste Transfer Stations</b></p>	<p>Council will seek to re-brand the transfer stations as Recycling and Waste Centres, to represent a shift towards a more sustainable future.</p> <p>While the transfer stations primarily act to transfer waste from the user to Council with eventual disposal to landfill, there is already a considerable amount of recycling occurring, for example with concrete and green waste. These materials are processed on site at Humpty Doo and then on-sold. In this sense, the transfer stations act to recover resources as much as handling waste.</p> <p>Council will seek to re-brand the transfer stations as Resource Recovery Centres, to represent a shift towards a more sustainable future. Branding can assist in influencing community thinking and behaviour.</p> <p><b>Timeframe for action:</b> Year 2 to 3</p> <p><b>Capital consideration:</b> Nil</p> <p><b>Operational consideration:</b> \$5000</p>
<p><b>2.7 Investigate potential for a social enterprise to operate a dump shop</b></p>	<p>One way of reducing rubbish to landfill is to allow the public to reclaim usable items from one another through the development of a "dump shop". Council will investigate the potential for a social enterprise to be set up at Humpty Doo WTS as a dump shop, including potential funding for any required capital works.</p> <p><b>Timeframe for action:</b> Year 3</p> <p><b>Capital consideration:</b> To be determined</p> <p><b>Operational consideration:</b> Nil</p>

### 3 Reduce incidence of dumped rubbish and litter

**Measured by:** Baseline established of the incidence of illegal dumping

<p><b>3.1 Establish and engage with community action group</b></p>	<p>With the recent expansion of Coolalinga shopping precinct and the establishment of fast food outlets, Council has witnessed a rise in roadside littering from labelled food and beverage containers. This is expected to rise further when additional fast food outlets are opened.</p> <p>Council will establish a stakeholder working group to identify measures to reduce the incidence of such littering and engage with fast food outlets to determine the role they may play. The group will also consider other forms of roadside littering and identify ways to better control its occurrence.</p> <p><b>Timeframe for action:</b> Year 1, ongoing</p> <p><b>Capital consideration:</b> Nil</p> <p><b>Operational consideration:</b> Reduced demand on Mobile Work Force</p>
<p><b>3.2 Establish by-laws regarding litter and illegal dumping</b></p>	<p>Council does not currently have by-laws in place to pursue and prosecute littering and illegal dumping. In addition, illegal dumping often occurs on Crown land, which is not within Council's jurisdiction or responsibility.</p> <p>Council will work on establishing amenity protection by-laws providing Council with greater enforcement ability.</p> <p><b>Timeframe for action:</b> Year 3 to 4</p> <p><b>Capital consideration:</b> Nil</p> <p><b>Operational consideration:</b> Nil</p>

## 4 Maintain overall customer satisfaction

**Measured by:** >95% of residents think the service provided by transfer stations is satisfactory or greater.

<p><b>4.1 Implement remaining operational changes at Berry Springs</b></p>	<p>In 2016, Council established a community working group for the Berry Springs WTS to guide the implementation of improvements based on a recent audit. Several improvements were completed with further actions to explore.</p> <p>Berry Springs WTS is currently not staffed fulltime, with a presence only in the early mornings and the afternoons. Berry Springs WTS is open one hour longer each day than Council’s other two transfer stations, closing at 7pm seven days a week.</p> <p>The opening hours should be brought in line with Council’s other transfer stations as part of providing adequate staffing and continuous supervision.</p> <p>Secondly, a gatehouse or some other structure that enables monitoring of vehicle numbers and waste tonnages, as well as providing on-site facilities for staff, should be installed.</p> <p>Council will also need to determine the feasibility of connecting the gatehouse to utility services such as power and water or whether the site is best serviced from off-grid power and water. A power line is located on the northern side of Cox Peninsula Road and there is no mains water nearby. The likelihood of establishing a suitable water bore is low.</p> <p><b>Timeframe for action:</b> Year 1</p> <p><b>Capital consideration:</b> \$30 000 for gatehouse \$100,000 for mains power connection, water tank</p> <p><b>Operational consideration:</b> Nil</p>
<p><b>4.2 Improve container deposit drop-off point at Humpty Doo</b></p>	<p>There is one drop-off location in the Litchfield municipality, on Spencely Road just south of the Humpty Doo WTS, where residents can claim the 10c rebate from the Container Deposit Scheme (CDS).</p> <p>Council currently accepts (at no charge), containers eligible for the deposit and collects the deposit from a third party when Council takes the containers to that facility.</p> <p>The revenue from this practice amounts to around 10,000-\$15,000 per year and this is returned to the community through Council’s Community Grants Scheme.</p> <p>Recently, a private enterprise explored establishing a private facility in Humpty Doo and this is expected to commence operation mid-November 2017.</p> <p>Council has several options, including:</p> <ul style="list-style-type: none"> <li>• Formalise a drop-off point at the transfer station and offer the CDS to residents, potentially competing with any private operator offering a CDS drop-off facility; or</li> <li>• Continue to receive eligible containers for free and rely on the convenience to residents of a one-stop drop off for all wastes at the transfer station. The drop-off point could be enhanced with educational material about the benefits to the community of people providing containers to Council for free, rather than using a different facility in return for cash.</li> </ul> <p>In the case of the first option, the revenue for Council’s Community Grant Scheme could be compromised. In the case of the second option, Council will see a lower influx of containers, but will be able to retain all the revenue generated. It is anticipated that the second option will be more viable for Council and beneficial for residents wishing to recycle containers eligible for deposit.</p> <p><b>Timeframe for Action:</b> Year 1</p> <p><b>Capital Consideration:</b> Nil</p> <p><b>Operational consideration:</b> dependent on option selected</p>

<p><b>4.3 Develop branding for grants awarded from CDS revenue</b></p>	<p>The annual CDS rebate paid to Council is in the \$10,000-\$15,000 range. These funds support Council's Community Grants Scheme providing funds to local community groups.</p> <p>Depending on the future potential impact to this revenue, as outlined in Item 4.2, Council will be able to develop branding to be used with the grants to help spread the recycling message and engage the community. The branding will link community efforts with recycling to helping make Litchfield "the best place to live in the Top End."</p> <p><b>Timeframe for Action:</b> Year 1</p> <p><b>Capital Consideration:</b> \$1500 for graphic design and printing</p> <p><b>Operational consideration:</b> Nil</p>
<p><b>4.4 Improve WTS safety</b></p>	<p>Council will conduct regular audits at all three transfer stations for public and staff safety to identify improvement opportunities.</p> <p><b>Timeframe for Action:</b> Year 1 to 2</p> <p><b>Capital Consideration:</b> \$10 000 for WHS review</p> <p>Safety improvement costs to be determined</p> <p><b>Operational consideration:</b> Nil</p>
<p><b>4.5 Review master planning for Howard Springs and Berry Springs</b></p>	<p>Population growth in Howard Springs and Berry Springs will place additional demand on these transfer stations, particularly at the general waste disposal area. Council will monitor the peak flows of traffic to ensure that tipping times remain reasonable, as well as the frequency of removal of full bins from the site to landfill. Where it is found that the sites are nearing operational capacity, following local population increases, Council will investigate options to expand or reconfigure the sites to maintain service levels.</p> <p><b>Timeframe for Action:</b> Year 4 to 5</p> <p><b>Capital Consideration:</b> \$30 000 to investigate reconfiguration of sites</p> <p>Reconfiguration costs to be determined</p> <p><b>Operational consideration:</b> Nil</p>
<p><b>4.6 Improve WTS amenity</b></p>	<p>Council wants to create a 'look and feel' to the transfer stations that conveys sustainability and the ethos associated with recycling.</p> <p>This will involve the use of vegetation and custom artwork created from reused materials.</p> <p>As residents frequently use the transfer stations, there is also an opportunity to trial a community purpose garden at Humpty Doo. Feedback from the trial can be adopted into any plan to replicate a garden at other sites.</p> <p><b>Timeframe for Action:</b> Year 3 to 5</p> <p><b>Capital Consideration:</b> \$10,000 for each transfer station</p> <p><b>Operational consideration:</b> Nil</p>

## 5 Advocate on behalf of the community

**Measured by:** Increased profile of Litchfield waste management and support from other levels of government

<p><b>5.1 TOPROC development of emergency waste facility</b></p>	<p>TOPROC has been advocating for a landfill to be developed in the Litchfield Municipality for some years.</p> <p>An emergency waste management site is urgently required for the Top End based on the limited capacity of the Shoal Bay to manage a natural disaster. Experience in other states, such as Queensland, have highlighted the importance of such a facility in the event of a major disaster.</p> <p>In the long term, Council's objective is for such a facility to be expanded as a fully working landfill. This would provide employment opportunities and potentially reduce the haulage and disposal costs for waste disposal.</p> <p>The approval and construction of such an emergency site will be in partnership with the Northern Territory Government.</p> <p>Council will use its advocacy role to promote the benefits of a second landfill servicing the Top End.</p> <p><b>Timeframe for Action:</b> Ongoing</p> <p><b>Capital Consideration:</b> Nil</p> <p><b>Operational consideration:</b> Staff time to attend TOPROC meetings</p>
<p><b>5.2 Product stewardship</b></p>	<p>There are several industry-led product stewardship schemes to ensure products are diverted from landfill and disposed of safely. These product schemes at present include e-waste, tyres, batteries and paints.</p> <p>Council has recently partnered with TechCollect to collect e-waste at the Humpty Doo WTS and will investigate the potential to expand this service to Berry Springs and Howard Springs. Council pays to have tyres collected at Humpty Doo to be recycled; batteries are sold for recycling. Council is investigating participation in the Paintback scheme to collect unwanted paint. However, due to the lack of economies of scale, these schemes are generally not as available in the Territory. Council will advocate for additional future product stewardship schemes to be made available in regional areas.</p> <p><b>Timeframe for Action:</b> Ongoing</p> <p><b>Capital Consideration:</b> Nil</p> <p><b>Operational consideration:</b> Nil</p>
<p><b>5.3 Open dialogue with businesses</b></p>	<p>Coolalinga has seen rapid growth in fast food restaurants and supermarkets. Increasing amounts of food is packed in disposable containers of waxed cardboard or polystyrene, which present littering and recycling challenges.</p> <p>Council will work with business owners in the municipality to find out what current limitations exist around recycling. Businesses that are successfully recycling can be promoted to residents.</p> <p><b>Timeframe for Action:</b> Ongoing</p> <p><b>Capital Consideration:</b> Nil</p> <p><b>Operational consideration:</b> Nil</p>

<p><b>5.4 Waste Planning for Urban Land Release</b></p>	<p>In the coming years, Litchfield will see an increase in the number of urban style lots in new suburbs such as Holtze. There may be an expectation from new residents in urban settings, for municipal waste services, such as kerbside collection.</p> <p>Council will track the number of urban lots being released and monitor development.</p> <p>Council will need to work with the NT Government on the development of any new suburbs and ensure that appropriate waste management is provided.</p> <p><b>Timeframe for Action:</b> : Year 2 to 4</p> <p><b>Capital Consideration:</b> Nil</p> <p><b>Operational consideration:</b> Staff time for consultation</p>
<p><b>5.5 Appropriate disposal of hazardous waste</b></p>	<p>Various types of waste that pose different levels of hazards to the community, such as asbestos and nuclear waste, are generated and collected throughout the municipality and Top End. There is some interest in the suitability of the long-term storage of these materials. Council will advocate to the NT Government for appropriate disposal of hazardous waste, including long-term storage.</p> <p><b>Timeframe for Action:</b> : Ongoing</p> <p><b>Capital Consideration:</b> Nil</p> <p><b>Operational consideration:</b> Nil</p>



## Review and improvement

***In any long-term strategy, there is a need to review actions regularly and measure progress in achieving objectives.***

The Waste Strategy includes flexibility to respond to changing waste disposal trends, more pronounced population changes and other matters not fully seen or understood at this point.

Council reviews its 2016-2020 Strategic Plan regularly and each year prepares its Municipal Plan (annual business plan). Given the Waste Strategy will work in alignment with both the Strategic Plan and the Municipal Plan, any significant changes in Council's strategic direction may trigger a review of our Waste Strategy.

On an annual basis, Council will undertake the following:

- Review the results of the actions undertaken the previous year in the effectiveness against the waste objectives.
- Consider any regional or national waste data that may point to a shift in waste management habits, changes in waste treatment technologies or changes to operational costs and external fee structures.
- Consider community feedback collected as part of Council's annual community survey and, later, the waste management survey.
- Consider any changes to external funding programs or improved alignment of Council's waste management activities to funding programs.



## What's next?

Council is keen for the community to see our waste strategy in action, so we will be providing regular updates on our website and through social media of key actions and achievements. Any key changes on the ground will be explained to the community ahead of time.



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