



COOMALIE COMMUNITY

GOVERNMENT COUNCIL

Waste Management Strategy

2022 - 2027



**COOMALIE
COMMUNITY**
GOVERNMENT COUNCIL

TABLE OF CONTENTS

EXECUTIVE SUMMARY	IV
1 INTRODUCTION	1
2 PHYSICAL CONSTRAINTS	2
2.1 Locality and population.....	2
2.2 Climate	2
2.3 Groundwater.....	3
2.4 Surface water	3
2.5 Protected areas	3
2.6 Waste management facilities	5
2.6.1 Adelaide River.....	5
2.6.2 Batchelor	6
2.6.3 Risk assessment	10
3 POLICY AND REGULATORY INFLUENCES	14
3.1 Climate Change.....	14
3.2 Circular Economy	14
3.3 National Policies.....	14
3.4 Territory Regulations	14
3.5 Local Requirements	15
4 WASTE INDUSTRY CHALLENGES AND OPPORTUNITIES	16
5 THE COOMALIE WASTE DILEMMA	17
5.1 Community Consultation	18
6 WASTE MANAGEMENT STRATEGY	20
6.1 Vision.....	20
6.2 Objectives.....	20
6.2.1 Governance.....	20
6.2.2 Public Engagement	20
6.2.3 Resource Recovery and Waste Reduction	21
6.2.4 Waste Management Infrastructure and Services	21
6.2.5 Protection of the Natural Environment and Municipal Amenity	22
7 RECOMMENDED ACTION PLAN	24
7.1 Strategy Development Process	25
7.2 Proposed Action Plan	26
8 NEXT STEPS	33
9 REFERENCES	34

Tables

Table 2-1. Statistics of population and distribution in the townships and localities of CCGC	2
Table 2-2. Adelaide River WMF public and commercial opening hours	5
Table 2-3. Batchelor WMF public and commercial opening hours	6

Table 2-4. Consequence ranking.....	10
Table 2-5. Qualitative measures of likelihood.....	10
Table 2-6. Risk rankings from combined consequences and likelihood.....	10
Table 2-7. Risk assessment for ARWMF and BWMF.....	11
Table 7-1. Governance Proposed Action Plan.....	26
Table 7-2. Public Engagement Proposed Action Plan.....	28
Table 7-3. Resource Recovery and Waste Reduction Proposed Action Plan.....	29
Table 7-4. Infrastructure and Services Proposed Action Plan.....	31
Table 7-5. Protection of Environment and Amenity Proposed Action Plan.....	32
Table 8-1. Next steps for CCGC to action strategies.....	33

Figures

Figure 2-1. The CCGC Shire.....	4
Figure 2-2. Containers located at the ARWMF for collection of cans, plastic and glass.....	6
Figure 2-3. Adelaide River Waste Management Facility.....	8
Figure 2-4. Batchelor Waste Management Facility.....	9

ACRONYMS

ARWMF	Adelaide River Waste Management Facility
BIITE	Batchelor Institute of Indigenous Tertiary Education
BWMF	Batchelor Waste Management Facility
CCGC	Coomalie Community Government Council
CDS	Container Deposit Scheme
CWMS	Coomalie Waste Management Strategy
DIPL	Department of Infrastructure, Planning and Logistics
LGANT	Local Government Association of the Northern Territory
NT	Northern Territory
NTFRS	Northern Territory Fire and Rescue Service
NTG	Northern Territory Government
RWMF	Regional Waste Management Facility
WMF	Waste Management Facility
WMS	Waste Management Strategy

EXECUTIVE SUMMARY

The Northern Territory's waste management practices are lagging behind the rest of Australia and impacting our environment and lifestyle. The Northern Territory (NT) currently has a waste management strategy (WMS), developed in 2015, that aims to reduce the generation of waste, increase rates of resource recovery and minimise environmental impacts caused by waste. However, the lack of infrastructure support to set up a cyclic economy and financial incentives to reduce waste disposal to landfill are limiting the achievement of such aims. Coomalie Community Government Council (CCGC) is not exempt from these limitations. Therefore, this five-year Waste Management Strategy from 2022-2027, aims to address these constraints, and others identified in collaboration with the community.

Through a public consultation of the CCGC community it was identified that there is an overall dissatisfaction with the waste management services provided by CCGC and its facilities. However, there is a positive attitude from the community towards recycling, although the current disposal method of recyclables is one of the main reasons why recycling is not done. The consultation also evidenced that there are opportunities for the engagement of local businesses and institutes in the development of waste management actions.

The assessment of the current waste management services, the feedback provided by the community and concerns raised by the Council highlighted the main actions required to improve waste management in the CCGC Shire. Some of the actions recommended in this strategy are education campaigns, data collection and joining efforts with other regional councils, local businesses and the Northern Territory Government (NTG) to implement solutions that are more economically and environmentally sustainable.

1 INTRODUCTION

Waste management is a vital aspect in striving towards a more sustainable future. Currently waste management practices in the localities within the Coomalie Community Government Council (CCGC) Shire and the wider NT are lagging behind the rest of Australia and there are environmental, social and economic requirements to improve. Considering this, CCGC has developed a five-year Waste Management Strategy (WMS) 2022-2027, to address the current waste management situation within the region and establish goals, actions and targets to improve future direction.

In preparing this strategy, a public consultation with the CCGC community was conducted, where community members had the opportunity to voice their opinions about the current waste situation in CCGC. Of those surveyed::

- 20% of the residential users and 35% of commercial users who completed the survey are satisfied with the current waste services
- Most commercial and residential users have a positive attitude towards recycling
- Improvement of the waste management facilities (WMF), more recycling options in the facilities and recycling education are perceived by the community as the main changes required to promote recycling.
- The limited opening hours of the facilities and the restrictions on the types of waste to be disposed are perceived as some of the factors leading to illegal dumping.
- Significant support for the use of a tip shop facility, for either donating goods (85%) or purchasing them (79%)
- The final disposal of recycled waste is a source of concern for the community and a limitation for their engagement into recycling.

2 PHYSICAL CONSTRAINTS

CCGC covers an area of land from Manton Dam recreation area in the north to south of the Adelaide River township and includes the residential estate of Lake Bennett, the Batchelor township and surrounding rural areas. CCGC is adjacent to Litchfield National Park and has a population of approximately 1,300 people. CCGC, as a Shire Council in the NT, faces some issues relating to its relatively remote location (see Figure 2-1 for Shire's location).

The following section outlines the physical constraints of the CCGC Shire within the NT, providing an overview of the two waste transfer stations, including an environmental risk assessment for Adelaide River Waste Management Facility (ARWMF) and Batchelor Waste Management Facility (BWMF).

2.1 Locality and population

CCGC is constituted by 11 townships and localities distributed in an area of 2,056 km² (CCGC, 2021). The towns of Batchelor and Adelaide River are those where most of the population is located. Table 2-1 includes available information about the CCGC population.

The median age of the population has increased from 30-34 in 1996 to 46 years of age in 2016, a median age much higher than that of the Northern Territory, which sits at 32 years of age (CCGC, 2021).

The education industry is the most stable industry in the CCGC Shire, where a tertiary education facility and two primary schools provide employment to 200 staff (CCGC, 2021). This is an important factor in the development of the strategy as the education industry can play a key role in the development of educational programs that align with the characteristics and interests of the community.

Table 2-1. Statistics of population and distribution in the townships and localities of CCGC

	Total People	Male (%)	Male	Female (%)	Female	Families	All private Dwellings	Average people per household
Coomalie*	1319	52.7	693	47.3	623	276	880	2.2
Townships and localities								
Adelaide River*	353	51.3	183	48.7	174	72	197	2.4
Amangal**	36	-	-	-	-	-	-	-
Batchelor*	507	51.1	259	48.9	248	99	290	2.3
Lake Bennett*	87	54.5	48	45.5	40	17	105	1.4
Eva Valley*	94	47.2	44	52.8	50	19	57	2.1
Rum Jungle*	84	52.8	44	47.2	40	18	60	2.4
Stapleton*	68	49.3	34	50.7	34	19	39	2.7
Robin Falls*	13	54.5	7	45.5	6	3	14	1
Finniss Valley*	64	63.5	41	36.5	23	11	79	2.5
Collet Creek*	4	42.9	2	57.1	2	0	3	0

*Data reported by NTG (2020a)

**Data reported by ABS (2016)

2.2 Climate

The townships that constitute CCGC are characterised by a sub-tropical climate. Climatic data from weather stations from the Bureau of Meteorology (BoM), in Adelaide River (station no. 14092) and Batchelor (station no. 14272) indicate that most of the rainfall of the year occurs between November and March (>100 mm), while there is lower or no rainfall between April and October. These factors impact fire control, dust suppression, leachate management and vehicular access.

None of the facilities are located in areas prone to flooding. However, Adelaide River and Batchelor are subject to heavy rainfall events which can lead to environmental risks associated with leachate generation.

2.3 Groundwater

The ARWMF and BWMF sit over the Coomalie Dolomite Aquifer; the aquifer has an overall good groundwater potential, with an average higher than 5.0 L/s. Groundwater yields can be high if the dolomite is weathered and/or fractured and very low where clays or fine sands are present (Verma, 2001).

It is known that production bores for the Batchelor township are in the Coomalie Dolomite (Verma, 2002) and concerns have been raised regarding possible groundwater contamination associated with BWMF activities. No monitoring bores are in the BWMF site area, as such, standing water levels (SWL) and the characteristics of groundwater underlying the site are not known.

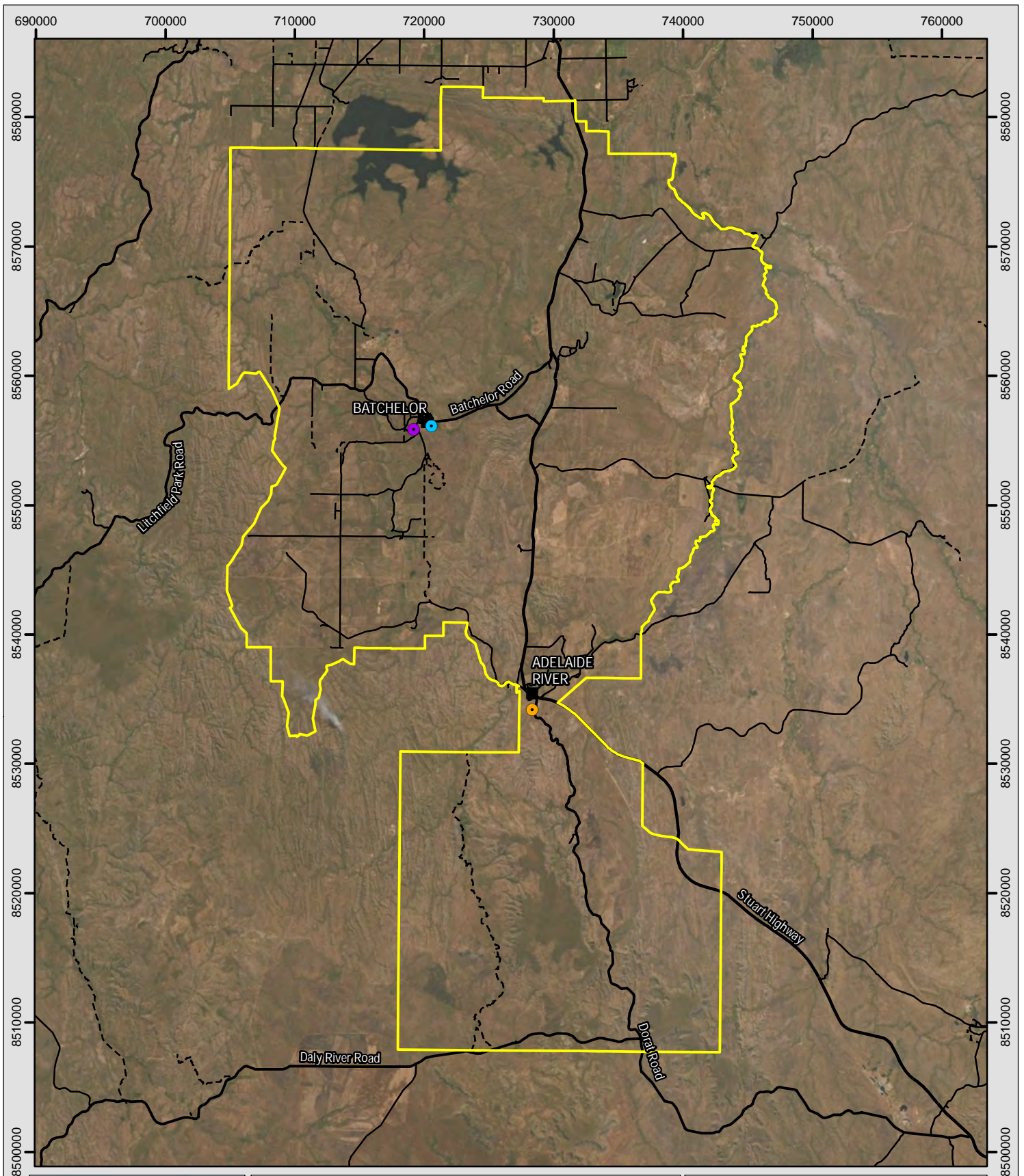
Given that both facilities are located over the Coomalie Dolomite Aquifer, they can potentially impact on groundwater quality. Consequently, actions aimed to reduce leachate generation in the facilities are essential to reduce groundwater contamination risks.

2.4 Surface water

The Darwin River Dam, located on the northern part of CCGC Shire, is the main source of potable water for the Darwin Region (DLPE, 2000). Therefore, it is essential for the CCGC to support actions that aim to maintain water quality, including the management of surface water runoff and leachate generation in ARWMF and BWMF.

2.5 Protected areas

The CCGC Shire is adjacent to Litchfield National Park, an area of significant cultural and ecological value. The proximity of the Shire and particularly the ARWMF, can represent some challenges for the CCGC, as poor waste management practices in the community (i.e. waste burning, illegal dumping and litter) and insufficient management of the ARWMF (leachate generation, waste burning, weeds and pests spread) could cause environmental impacts on the park. These challenges also create opportunities to liaise with rangers, NTG and other important stakeholders to develop waste management programs that promote better practices in the community.



Legend

- Town
- Adelaide River Waste Management Facility
- Batchelor Waste Management Facility
- Coomalie Community Government Council
- ▭ COOMALIE SHIRE
- Principal road
- Secondary road
- Minor road
- - - Track

0 2.5 5 10
Kilometres

MAP INFORMATION
 Scale: 1:400,000 @ A4
 Projection: GDA 1994 MGA Zone 52
 Date Saved: 17/05/2022
 Client: CCGC
 Mapper: AF

DATA SOURCE
 Topographic data: Geoscience Aust.
 Project data: NR Maps
 Imagery: ESRI

Figure 2-1. The CCGC Shire

2.6 Waste management facilities

Waste collection is done weekly in the townships and for other businesses outside of Batchelor. Kerbside rubbish collection in Lake Bennet is undertaken by a local contractor. Residential waste is collected on Monday, whilst commercial waste is collected on Mondays and Thursdays. Both the ARWMF and BWMF are currently used as transfer stations and waste is transferred to cells within their respective landfills.

2.6.1 Adelaide River

The ARWMF is located approximately 1.8 km from the centre of the town, on Lot 160, 90 Dorat Road (see Figure 2-3). The facility comprises an area of 3.34 ha, of which 2.5 ha are currently being used. Although the operation and management of the ARWMF is undertaken by CCGC, the land is owned by the Department of Infrastructure, Planning and Logistics (DIPL) and is subject to an unresolved Native Title Claim since 2001 (Ashford, 2014).

In 2005, a transfer station was built on site with a shipping container for waste disposal. A second container was later installed in 2014. Separation bays are also located on site (Poortinga, 2018). Public access was restricted, with a perimeter fence completed in 2021. Public access has also been limited by reducing access times to the WMF. The current opening times of the site are included in Table 2-2.

Table 2-2. Adelaide River WMF public and commercial opening hours

Day	Public hours	Commercial hours
Monday	Closed	Closed
Tuesday	8 -10	8- 2 pm
Wednesday	Closed	Closed
Thursday	Closed	Closed
Friday	8 -10	8 -10
Saturday	8 -4	8 -4
Sunday	7 - 3	7 - 3

No weighbridge has been installed at the facility, however since 2021, waste quantities have started to be recorded, both daily and weekly, with all data reported to CCGC quarterly. No historical reports of visual estimation of waste quantities received are available, and as such, no historical data on current quantities and types of waste disposed is available. The quantities and types of waste disposed since the facility was established is also unknown.

General waste as well as three recyclable materials are collected at the transfer station:

- General waste: two 25 m³ bins are located on site for its disposal and emptied every Monday. Based on this data, a total of 50 m³ of general waste is disposed at this facility every week.
- Cans, glass and plastic: bays (shown in Figure 2-2) are located on site for the disposal of these materials. The quantity of material disposed weekly is unknown.



Figure 2-2. Containers located at the ARWMF for collection of cans, plastic and glass

Green waste and scrap metal are also separated at the facility, whereby steel is removed by a recycling contractor and green waste is provided to the community free of charge after it has been mulched. The remainder of recyclable materials are directly disposed into the landfill. When in high enough quantity a mulching contractor is engaged to shred the green waste into smaller pieces, thereby creating mulch that can be used by CCGC in maintaining parks and gardens or sold to the public.

Construction and demolition waste is accepted, excluding asbestos. Other wastes not accepted at the facility are:

- Chemicals
- White goods
- Car bodies
- Lead acid batteries
- Pressure gas cylinders
- Batteries
- E-waste
- Asbestos
- Tyres
- Asbestos
- Animal carcasses
- Medical waste
- Waste oils
- Paint

2.6.2 Batchelor

The BWMF covers an area of 6.8 ha is located on Lot 321, 28 Sargent Road, approximately 0.5 km from the town centre (see Figure 2-4).

The site, where waste began to be disposed of in the mid 1970's (Ashford 2014), was transitioned from a 'self-dumping' facility to a transfer station in 2013. As a result, three 25 m³ bins are located in the facility for the community to dispose of general waste. The bins are emptied on Mondays and Thursdays, although sometimes it is done once a week, depending on rubbish volumes. A tilt tray truck is used to load and unload the bins. As done at ARWMF, the BWMF was fenced and sealed in 2013, with fencing completed in 2021, as a way to improve the appearance and operation of the facility (Ashford, 2014). Additionally, opening hours were limited and are currently those presented in Table 2-3.

Table 2-3. Batchelor WMF public and commercial opening hours

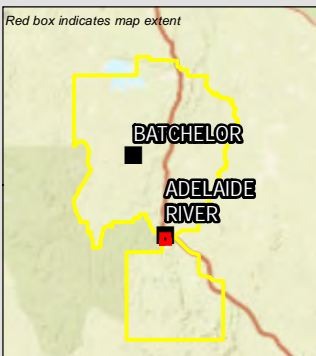
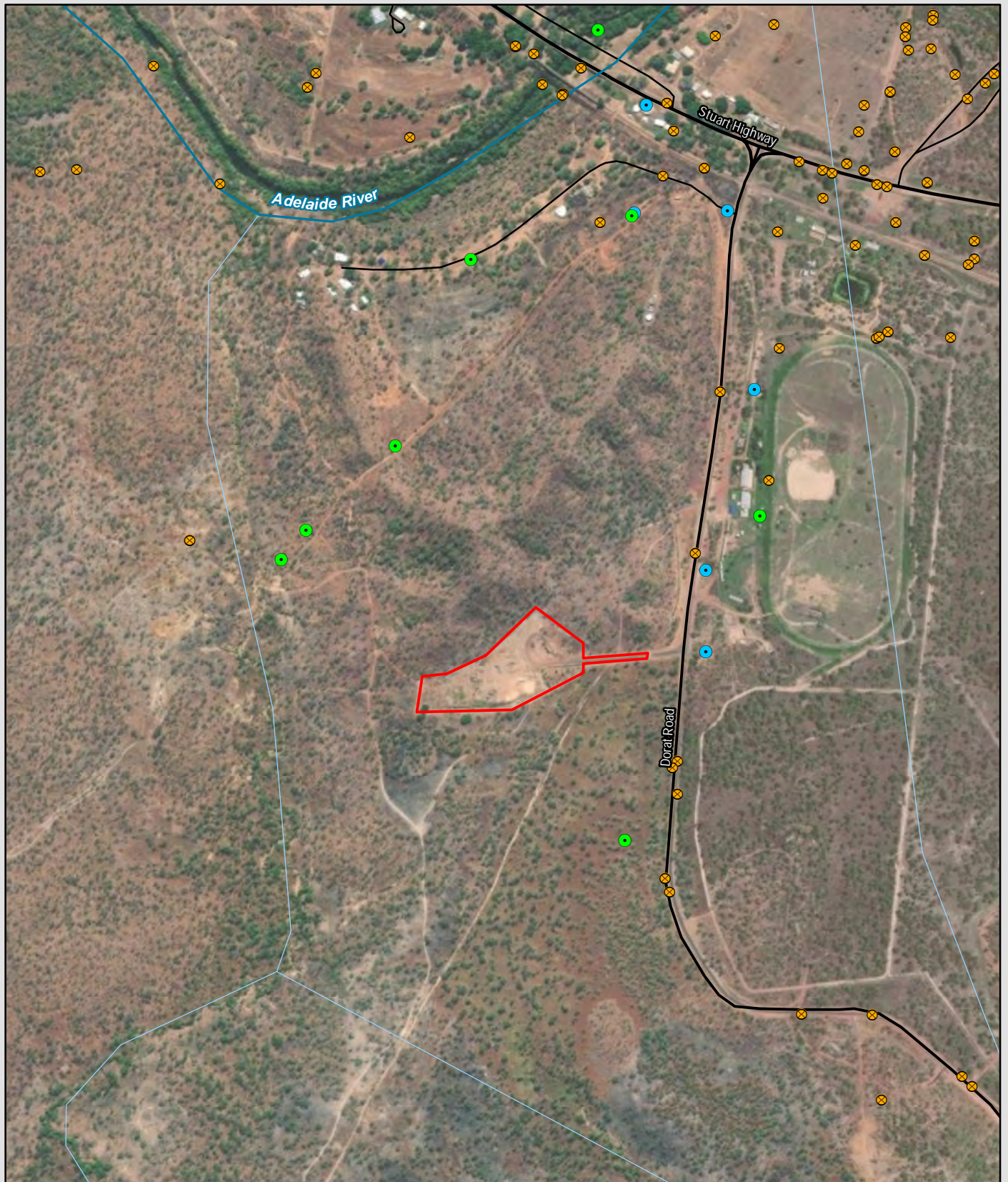
Day	Public hours	Commercial hours
Monday	7 – 10	7-10, 11- 3
Tuesday	Closed	Closed
Wednesday	Closed	Closed

Day	Public hours	Commercial hours
Thursday	Closed	7 – 11
Friday	11 – 3	11 – 3
Saturday	8 -4	8 -4
Sunday	8 -4	8 -4

The facility does not have a weighbridge, however cubic metre estimates are taken regularly (i.e. daily and weekly) and reported to CCGC quarterly. Historical volumes of waste disposed are unknown and this historical quantity of waste deposited on site since it started operations is also unknown.

The facility has three 25 m³ bins for the disposal of general waste, and a recycling station with two 240 L wheelie bins. A bin for the disposal of scrap steel and an area to deposit green waste is also located at this facility. Like ARWMF, a steel is removed by a contractor and green waste is given to the community free of charge after it has been mulched.

The materials not accepted at the ARWMF are also not accepted at BWMF.



- Legend**
- Weeds of significant interest
 - Production bore
 - Unknown bore
 - Lot 160
 - Major Drainage
 - Streams
 - Principal road
 - Secondary road
 - Minor road



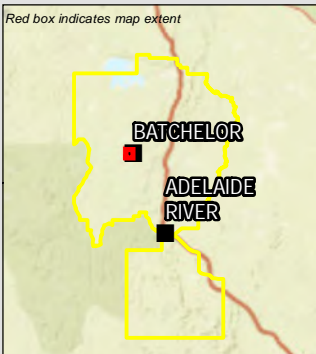
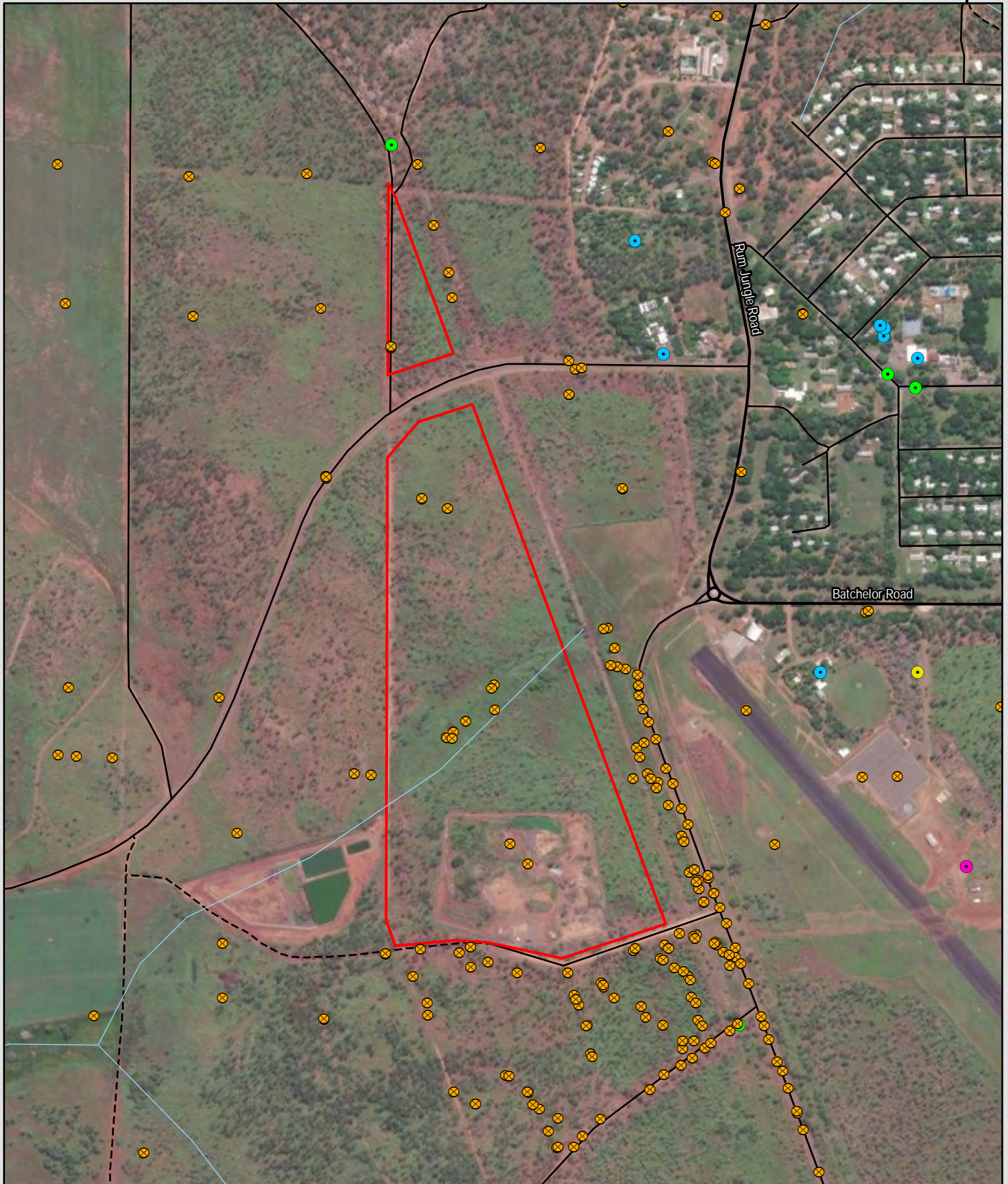
0 50 100 200
Metres



MAP INFORMATION
 Scale: 1:10,000 @ A4
 Projection: GDA 1994 MGA Zone 52
 Date Saved: 17/05/2022
 Client: CCGC
 Mapper: AF

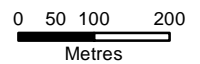
DATA SOURCE
 Topographic data: Geoscience Aust.
 Project data: NR Maps
 Imagery: ESRI

Figure 2-3. Adelaide River Waste Management Facility



Legend

- Weeds of significant interest
- Investigation bore
- Monitoring bore
- Production bore
- Unknown bore
- Lot 321
- Streams
- Secondary road
- Minor road
- Track



MAP INFORMATION
 Scale: 1:10,000 @ A4
 Projection: GDA 1994 MGA Zone 52
 Date Saved: 17/05/2022
 Client: CCGC
 Mapper: AF

DATA SOURCE
 Topographic data: Geoscience Aust.
 Project data: NR Maps
 Imagery: ESRI

Figure 2-4. Batchelor Waste Management Facility

2.6.3 Risk assessment

The following sub-section details an environmental risk assessment of the two waste management facilities within the CCGC municipality.

The ranking for event consequence is shown in Table 2-4. The likelihood of an event occurring provides a measure of the known or anticipated frequency of occurrences (Table 2-5). Combining likelihood with consequence provides guidance on risk levels of each aspect and enables key risks to be identified and management strategies to be prioritised (Table 2-6). The risk assessment for the activities associated with the facilities is provided in Table 2-7.

Table 2-4. Consequence ranking

Consequence		
1	Insignificant	No/low measurable impact on the environment.
2	Minor	Some minor, temporary environmental impact.
3	Moderate	Contained temporary or permanent minor, localised environmental damage.
4	Major	Severe environmental damage.
5	Catastrophic	Environmental disaster.

Table 2-5. Qualitative measures of likelihood

Probability/Likelihood			Likelihood criteria
A	Rare	May occur only in exceptional circumstances.	0-1%
B	Unlikely	Could occur at some time.	2-10%
C	Moderate	Might possibly occur at some time.	11-50%
D	Likely	Will probably occur in most circumstances.	51-90%
E	Almost certain	Expected to occur in most circumstances.	91-100%

Table 2-6. Risk rankings from combined consequences and likelihood

		Consequence				
		1	2	3	4	5
Likelihood	A	1	3	6	10	15
	B	2	5	9	14	19
	C	4	8	13	18	22
	D	7	12	17	21	24
	E	11	16	20	23	25

Where;

- Red** = extreme risk intolerable
- Orange** = high risk intolerable or tolerable
- Yellow** = medium risk tolerable or acceptable
- Green** = low risk acceptable

Table 2-7. Risk assessment for ARWMF and BWMF

Aspect	Impact	Risk Ranking	Mitigation/Control	Residual Risk
Air quality (dust and odour)	Emissions of air pollutants and odour	Medium (9)	Frequent covering of waste to minimise exposed waste Respond to any complaints regarding odour, and implement changes where / if required Spay water when necessary Undertake operations outside of the opening times, to prevent exposure of users	Low (6)
Greenhouse gas emissions	GHG emissions from landfill	Low (5)	Frequent capping to minimise exposure to water Use of clayey soils to cover waste	Low (3)
Water quality	Contamination of surface or groundwater from leachate	High (18) – <i>Adelaide River</i>	Waste disposed of in landfill immediately (i.e. not stored elsewhere) Frequent covering of waste to minimise exposure to water Use clayey soils for covering of waste Install and manage diversion drains/control measures, if required, to separate clean stormwater from operational areas	Medium (9)
		Extreme (21) – <i>Batchelor</i>	Ensure regular inspections are undertaken of the landfill and active tip face to detect any potential contaminated runoff	High (14)
Stormwater, erosion and sediment control	Reduced water quality to surrounding waterways due to sediment laden run-off	High (20)	Use of slopes <20% to minimise erosion risk Encourage revegetation of unused areas Install and manage diversion drains/control measures as appropriate to separate clean stormwater from operational areas Landfill staging with slopes to stimulate water to flow off-site Frequent covering of waste to minimise exposure	Medium (9)
	Ponding water in the facilities which can lead to leachate generation and impacts on on-site activities	Medium (9)	Landfill staging with slopes to stimulate water to flow off-site Implementation of stormwater control measures at both sites, but particularly in Batchelor, giving concerns related to contamination of the aquifer	Low (6)
Noise	Excessive noise impacts on surrounding environment	Low (5)	All operations to be undertaken within open hours only Minimise excessive noise activities where possible	Low (3)
Weeds and pests	Introduction or spread of weeds through vehicle movements or waste disposed of on site	Medium (12)	Adherence to CCGC Weed Management Plan Regular weed and pest monitoring and control Revegetation of exposed areas as soon as practical Maintain a 50 m weed free zone around the WMF to stop the spread of weeds that entered the site into relatively pristine environments (particularly that of Adelaide River) Remove all Gamba and other grassy weeds from site that create a high fire risk	Low (5)

Aspect	Impact	Risk Ranking	Mitigation/Control	Residual Risk
	Increased numbers of pests in the area due to waste	High (13)	Frequent covering of waste to minimise exposed waste Regular weed and pest monitoring and control Revegetation of exposed areas as soon as practical Regularly clean-up of scattered rubbish Maintain site fencing to keep larger animals out of site	Low (6)
Flora and fauna	Unauthorised clearing	Low (5)	Clearly mark out areas to be cleared with marking tape if any clearing is to be undertaken	Low (3)
	Water quality impacts to surrounding flora and fauna	High (13)	Management of leachate, erosion and stormwater as per above.	Low (6)
Fire	Bushfires that could reach the WMF and damage the facility and surrounding environment	High (18)	Fire breaks of at least 4 m must be maintained around site boundary line and around buildings Emergency response plan and procedures in place Appropriate firefighting equipment maintained on site Maintain a 50 m weed free zone around the WMF to stop the spread of weeds that entered the site into relatively pristine environments (particularly that of Adelaide River) Remove all Gamba and other grassy weeds from site that create a high fire risk	Low (6)
	Waste facility containing flammable and combustible material and the increased risk of starting a fire – leading to damage of facility and surrounding environment	Extreme (21)	No hot works undertaken during fire bans Fire breaks of at least 4 m must be maintained around site boundary line and around buildings Emergency response plan and procedures in place Appropriate firefighting equipment kept maintained on site No acceptance of chemicals and hydrocarbons for storage or disposal Frequent covering of waste to minimise exposure (BWMF) Maintain mulch/green waste stockpile heights to prevent spontaneous combustion	Medium (6)
Public safety	Public access to the site leading to injuries or casualties	High (13)	Clear and appropriate signage Maintain a clean site, and ensure appropriate disposal of wastes Closing of waste disposal bays when waste bins are full or being emptied/replaced Clearly defined No Go areas for public Provide assistance and clear directions on correct waste disposal areas Maintain road access in good condition	Low (6)
Waste	Cross contamination of wastes impacting on the ability to recycle wastes	High (13)	Provide assistance and clear directions on correct waste disposal areas Clearly labelled signs at transfer stations Provide facility operators with training to clearly identify types of waste Salvage of recyclable materials incorrectly disposed of	Medium (9)

Aspect	Impact	Risk Ranking	Mitigation/Control	Residual Risk
	Inappropriate management of asbestos and other hazardous or contaminated materials leading to safety concerns and contamination (e.g. leachate generation)	High (13)	<p>Inform community about types of waste not accepted at the facilities and options for their management</p> <p>Provide facility operators with training to clearly identify types of waste</p> <p>Clear signage with prohibited waste</p> <p>Limit public access</p> <p>Develop an Emergency Response Plan outlining unauthorised waste disposal procedures</p> <p>Site supervision</p>	Medium (9)
	Disturbance of legacy waste at the facilities which could lead to contamination of soil or release of toxic compounds	Medium (9)	<p>Identify and mark areas where legacy waste is believed to be located</p> <p>Minimal disturbance of soil by using above ground waste disposal technique</p> <p>Use clayey soils to cover waste</p>	Low (6)
	Uncontrolled dumping of waste, litter or un-acceptable disposal of wastes	High (13)	<p>Provide assistance and clear directions on correct waste disposal areas</p> <p>Clearly labelled signs at transfer stations</p> <p>Salvage of recyclable materials incorrectly disposed of</p> <p>Regular clean-up of scattered and inappropriately disposed waste</p>	Medium (9)

3 POLICY AND REGULATORY INFLUENCES

The following section outlines some of the main key policy and regulatory influences that have impact on waste management within the CCGC municipality.

3.1 Climate Change

Landfills are a major source of the greenhouse gas emissions of carbon dioxide and methane, due to the decomposition of organic matter that is disposed through burial. World Bank data suggests food, organic and garden waste (FOGO) makes up 32% of Municipal Solid Waste (MSW) (World Bank, 2018). It is currently unknown the volume of greenhouse gases released from the two landfills but, as a legacy landfills, it is not well placed to capture this landfill gas. It can, however, remove FOGO from its landfill and process this material into mulch and compost. The NT Government has set a zero-greenhouse gas emission target for 2050 (NTG 2020b). While the mitigation and adaptation strategies available to the landfills may not deliver a zero-carbon outcome, they would enable CCGC to achieve realistic net-zero emissions and move toward climate neutrality.

3.2 Circular Economy

The transition to a circular economy is often seen as relying on industry-wide and national level economic, change. There are many limitations on CCGC moving toward a circular economy, such as its low economy of scale and significant remoteness. Manufacturers within the region who modify their own processes, add to their costs, and makes their products more expensive than out-of-town suppliers. Changes within the broader Australian economy (minimising packaging) may negatively impact (reduce recoverable materials) attempts to develop local recycle industries (recycle cardboard packaging waste). Locals can amend their own purchasing behaviours to move toward 'green' products, yet the effectiveness of this may lag until the broader Australian economy produces sufficient products for locals to access. The impacts and future directions of the circular economy are largely unknown at this stage and the community will be heavily affected by global and national developments.

3.3 National Policies

Nationally, there are a lot of waste management issues being addressed, from the ban on exporting waste, to legislation regulating resource recovery within industry, to funding initiatives to establish markets for recycled materials. It is a dynamic field and undergoing considerable change. Within this moving context, it will be essential for the region to remain open and flexible to these changes, to be ready to take advantage of the opportunities presented, yet not lock itself into a course of action that becomes superseded and requires an expensive correction. While these national changes will be largely directed at the more populous areas in the south and east of Australia, their impact will filter through to the community.

3.4 Territory Regulations

At the time this WMS was developed, under the current legislation (*NT Waste Management and Pollution Control Act*), neither of the two facilities managed by CCGC are required to have a licensed landfill and Environmental Management Plan (EMP) for their operation. However, it is required that waste management facilities work towards best practice to guarantee that the facilities are safe for staff, the community and the environment (LGANT, 2009). It is very likely that CCGC will need to in the future look at licensing their operational landfills and have an operational EMP in place.

In addition, the Territory aims to reduce the generation of waste, increase rates of resource recovery and to minimise environmental impacts caused by waste (NT EPA, 2015). As such, current and future waste management strategies in CCGC need to also align with this aim.

The actions required to ensure best practice and to support the aims of the Territory in terms of waste management come with a cost that can sometimes be unaffordable for small communities. These costs are not unique to CCGC but also impacts all Regional Councils within the Big Rivers Region (which CCGC is not part of, due to being in the administrative area known as Arafura). This economic constraint is seen as an opportunity for the creation of a Regional Waste Management Facility (RWMF) which will enhance the economic and environmental sustainability of waste management in small and remote communities.

3.5 Local Requirements

CCGC aim to provide the community with an efficient and affordable waste disposal service and encourage reduce, reuse and recycle practices. Council endeavours to:

- ensure a safe and healthy environment within the CCGC townships and localities, by providing efficient waste disposal services and promoting sanitary practices.
- provide cost effective kerbside collection services and waste management facilities, that are affordable for users while raising sufficient revenue to maintain service levels and asset value.
- protect the public amenity and lifestyle of the community, ensuring no disturbances from noise, odours, sights, pests and so on.
- protect the environment, by maintaining the quality of surface and ground water, air, native fauna and flora ecosystems, and by eliminating pollution and illegal dumping.
- facilitate the development of a cyclic economy, through providing opportunities and promoting practices to reduce waste, re-use second-hand items, and recycle materials.

4 WASTE INDUSTRY CHALLENGES AND OPPORTUNITIES

National and State and Territory Governments have developed policies and funding to stimulate the development of waste markets, but the range of options available remain small and are concentrated in the populated parts of Australia. The NTG acknowledges that, due to insufficient end-use market demand and a low economy-of-scale, it does not have the capacity to develop innovative recycling markets.

Thus, the bulk of these markets are going to remain interstate for the foreseeable future. CCGC's small economy of scale, remoteness and the limited information about waste quantities and types generated increase this vulnerability and lack of access to recycle markets.

These limitations also create opportunities for regional communities such as:



5 THE COOMALIE WASTE DILEMMA

The history of waste management in the CCGC Shire has been similar to that experienced by many other rural and remote towns in the NT. CCGC currently provides kerb side pick-up of general and commercial waste to residents and businesses in the townships and has two waste facilities, one at Batchelor and one at Adelaide River. The CCGC did extend some scavenging rights to an independent contractor but concluded their contract in June 2021 after the installation of staffed gatehouses at waste management facilities.

The CCGC provides essential waste management services to the local community and faces challenges with the move towards sustainable waste management, including:



Lack of **knowledge** in the community around sustainable waste management, both what is currently being done and what can be done better



An ageing and conservative population who may not be as **receptive** to new waste management proposals



Physical **isolation** from reuse and recycle facilities and markets for other types of waste



Incorrect or destructive **dumping of waste** on the side of roads or at waste facilities



Limited data about types and quantities of waste generated in the community



Use of the facilities by **non-residents**



Environmental impacts caused by the current operation of the facilities



Future **waste management security**

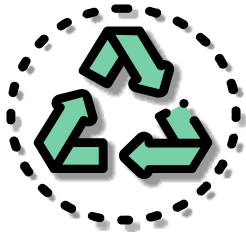
5.1 Community Consultation

A consultation process was undertaken by True North Strategic Communication with CCGC stakeholders and the community to understand attitude, values and appetite for change towards improving waste management in CCGC. The consultation was open for four weeks between 7 March 2022 and 1 April 2022 and included the following tools and tactics:

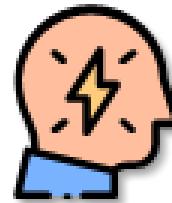
- Information displays: held to proactively engage with the community at a time that is suitable to them, so they have an opportunity to provide feedback and ideas about waste management.
- Feedback stands: set up at the waste management facilities and used to survey residents as they entered and used the facilities. Facility users were asked to provide feedback on the current facilities through one-on-one discussions with the project team.
- A factsheet: developed to provide the community with 'need to know' information about the consultation process.
- Surveys: created in an online and hard copy form to record feedback, thoughts and ideas about current and future waste management systems in CCGC. A total of nine commercial and 79 residential users were surveyed.

The overall outcomes of the consultation (as detailed in the full report in Appendix A), are summarised below:

There is a general **dissatisfaction** from commercial and residential users surveyed with the current **waste management services** provided by the Council.



Commercial and residential users surveyed are also **dissatisfied** with the **waste management facilities**.



The surveyed community expressed **positive attitudes towards reducing, reusing, and recycling**.

There is still **some unawareness** of the recycling services provided by CCGC by those surveyed.

The main factors discouraging the community to recycle are:

- limited recycle options at the facilities
- lack of incentives to recycle
- final disposal of recycled materials into the landfill

Through the consultation, the following waste management issues and opportunities for improvement were mentioned by the surveyed community:

ISSUES

- Recyclables disposed into the landfill
- Lack of incentives for the community to recycle
- Non-residents not charged for using the facilities
- Illegal dumping
- Lack of options to dispose tyres and whitegoods
- Opening hours may not be convenient for users
- Overloaded bins at facilities
- Lack of weed management
- Staff may not always provide the assistance required by users
- Poor condition of access roads in the facilities
- Limited awareness of recycling services

OPPORTUNITIES

- Container Deposit Scheme
- Community educational programs about waste
- Charges and fees for non-residents users
- Community clean-up campaigns
- Annual collection of tyres, white goods and other large items
- Improvement of opening hours
- Participation of businesses and institutes in the development of actions to improve waste management (E.g. BIITE)

6 WASTE MANAGEMENT STRATEGY

6.1 Vision

The vision of the Coomalie Waste Management Strategy (CWMS) is to ensure the community of CCGC has a total waste management service that:

- ensures a safe and healthy environment within the CCGC townships and localities, by providing efficient waste disposal services and promoting sanitary practices.
- provides cost effective kerbside collection services and waste management facilities, that are affordable for users while raising sufficient revenue to maintain service levels and asset value.
- protects the public amenity and lifestyle of the community, ensuring no disturbances from noise, odours, sights, pests and so on.
- protects the environment, by maintaining the quality of surface and ground water, air, native fauna and flora ecosystems, and by eliminating pollution and illegal dumping.
- facilitates the development of a cyclic economy, through providing opportunities and promoting practices to reduce waste, re-use second-hand items, and recycle materials.

6.2 Objectives

This CWMS outlines actions to provide CCGC with a clear direction over the next five years. The strategy will enable CCGC to identify key areas for the improvement of waste management in the community and to achieve sustainable practices that align with regional and national targets.

Its objectives are organised in a set of interconnected themes:

6.2.1 Governance

- a. immediately establish a **strategic framework**, to guide CCGC waste management policies, programs and service delivery, track progress, and enable a regular annual review of performance
- b. ensure ongoing accurate and comprehensive waste **data** collection, reporting and analysis
- c. ensure regular monitoring and reporting of service delivery effectiveness, in order to provide for **continuous improvement and best practice**
- d. ensure ongoing professional levels of **support and guidance** for waste management staff working in the facilities
- e. ensure ongoing **whole-of-Council integration** of waste management policies and targets, across CCGC's departmental operations, procurement activities, service hires, hosting of public events, and so on.
- f. complete a **life span assessment** on ARWMF and BWMF to determine remaining life span and capacity of the facilities and guide future closure, rehabilitation and planning of waste management within the CCGC

6.2.2 Public Engagement

- g. Engage with and **educate** the broader Coomalie community (e.g. residents, commercial operators, schools, community organisations, etc) on ways to reduce, reuse and recycle waste material, as well as better practices for the management of waste at home/business and the correct use of the waste management facilities, through:

- i. undertaking regular waste education campaigns
 - ii. participation in waste-related programs, such as Keep Australia Beautiful, Dirty Girl, One Planet Councils and the Recycling Modernisation Fund
- h. create **interactive formats** e.g. newsletters, press releases, web pages for regular two-way sharing of information e.g. policies and programs, charges and procedures, performance reports with all stakeholders e.g. rate payers, commercial operators and members of the general public
- i. across the life of the strategy, investigate the potential for developing **partnerships** with and between Council, community groups, commercial operators, education institutes, other regional councils and government agencies, such as:
- i. RS Gardening or other local businesses to develop green waste mulching operation
 - ii. Batchelor Institute of Indigenous Tertiary Education (BIITE) for the development of educational programs to be implemented in the community
 - iii. community groups or volunteers who may be interested in supporting educational activities, as well as an annual clean-up program
 - iv. NT EPA and other regional councils and communities to allocate a container collection depot accessible to the community

6.2.3 Resource Recovery and Waste Reduction

- j. encourage a community-wide **reduction** of waste generation across the life of the strategy, through:
- i. education campaigns
 - ii. providing opportunities to reuse or recycle unwanted items
 - iii. providing recycling advisory services to commercial and other industry bodies
- k. undertake research into developing **local markets** for recyclable materials through partnerships with existing enterprises or supporting small scale start-ups
- l. provide opportunities for **resource recovery** by:
- i. Cash for Cans initiative through either CCGC, local schools or organisations
 - ii. partnering with BIITE to explore possible ways to recycle waste locally and provide opportunities for BIITE to train up students to assist with waste management practices (i.e. in learning how to de-gas white goods so they are more easily recyclable)
 - iii. partnership with TechCollect, for the collection of e-waste (<https://techcollect.com.au/>)
 - iv. engaging with local businesses and contractors, interested in creating mulch and compost from green waste disposed at the facilities
 - v. promoting at-home composting in the community

6.2.4 Waste Management Infrastructure and Services

- m. Ensure waste management facilities and services meet current and future **needs of stakeholders** residential and commercial with the CCGC, such as
- i. Kerbside collection and transfer station facilities for rate payers, residents and Indigenous communities
 - ii. operational hours that align with commercial and residential users needs
 - iii. good condition of infrastructure

- iv. collection of white goods, tyres and other **Listed Wastes** and their disposal in a licenced waste management facility
- n. ensure waste services maintain comparable **affordability** with other relevant jurisdictions, while meeting operational and future infrastructure costs
- o. ensure ongoing development of **best practice** in operating facilities and delivering services
- p. ensure the current infrastructure and services provided **enhance recycling practices** in the community
- q. engage with NTG and regional councils to support and promote the creation of a **Regional Waste Management Facility** that will improve the environmental and economic sustainability of waste management

6.2.5 Protection of the Natural Environment and Municipal Amenity

- r. ensure ongoing **compliance** with the NT EPA regulations, including:
 - i. confirm title requirements
 - ii. appropriate planning, approvals (when activities described in Schedule 2 of the *Waste Management and Pollution Control Act 1998* are undertaken) and oversight of service delivery and infrastructure works
 - iii. monitoring and reporting of environmental impacts
 - iv. guarantee best practice to guarantee that the facilities are safe for staff, the community and the environment, in alignment with the *Waste Management Guidelines for Small Communities in the Northern Territory* (LGANT, 2009).
- s. develop and update the **operations plan** for the waste management facilities, which should include
 - i. waste generation (estimates and types)
 - ii. waste collection and disposal procedures
 - iii. management, staff and users (rates, roles and responsibilities)
 - iv. facilities management (operation hours, cell construction and landfilling of waste, bins, signage, litter management, pest and weed control, fire management, leachate and water management)
 - v. training, communication and awareness (staff training plan, communication plan, educational programs)
 - vi. environmental risk assessment
 - vii. emergency response plan (incident reporting, incident investigation, inspection report)
 - viii. monitoring (monitoring procedures, routine inspections, data reporting)
 - ix. life span assessment based on collected data
 - x. closure plan
 - xi. rehabilitation plan
- t. reduce the incidence of **litter**, across the life of the strategy, through
 - i. providing education services to the public
 - ii. providing education campaigns targeted to indigenous communities and school groups
 - iii. providing education services, public notices and targeted campaigns to the public
 - iv. improving waste management services provided

- u. reduce **illegal dumping and burning of waste**, across the life of the strategy, through
 - i. working in partnership with NTG agencies, community groups to address the issue
 - ii. improving the waste management services provided
 - iii. inform community about risks associated with burning waste
- v. evaluate strategic barriers and opportunities for developing a **cyclic economy** within the CCGC

7 RECOMMENDED ACTION PLAN

The following recommendations have been developed as a result of the community consultation process (Appendix A) and the strategies outlined in Section 6. The process has been visually described in Section 7.1, detailing how the public consultation process lead to the development of key themes and subsequent actions.

These key themes and actions have been regrouped under their relevant objective themes in the following Action Plan Framework (refer to Section 7.2). Indicative and high level timeframes, budgets and relevant stakeholders have been added.

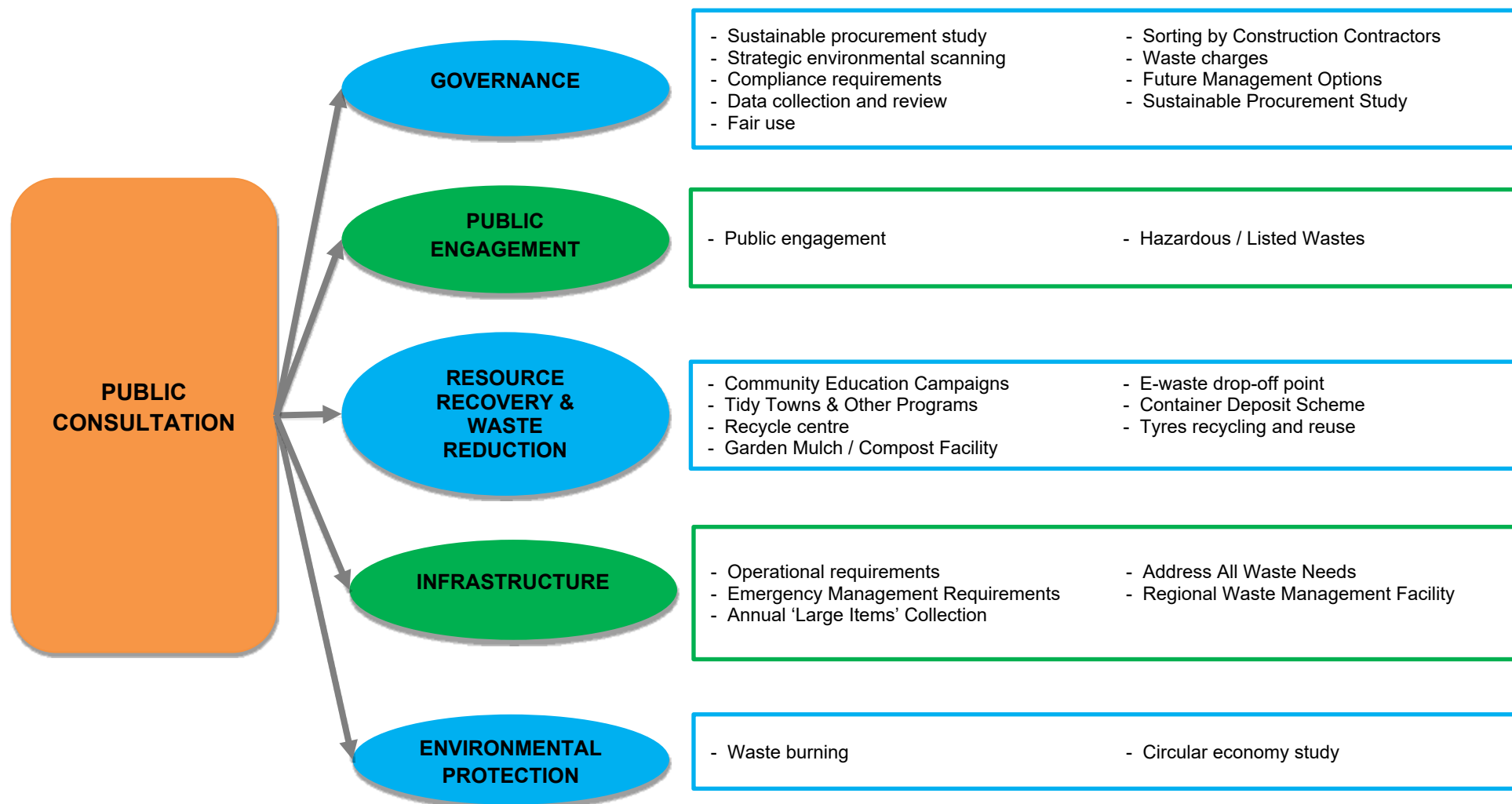
The types of Action which Council will need to engage in has also been categorised:

- A** - research, policy & procedural development
- B** - liaison, support, advocacy and collaboration
- C** - engagement of consultants and contractors
- D** - direct physical activity of Council

Note that budgets are indicative only. CCGC will need to obtain quotes from relevant contractors and/or engage a quantity surveyor to obtain detailed budget information.

7.1 Strategy Development Process

The following diagram details visually how the key themes and actions for the CWMS was developed. These key themes feed into Section 7.2, the Proposed Action Plan.



7.2 Proposed Action Plan

Table 7-1. Governance Proposed Action Plan

THEME & STRATEGIES		INDICATIVE TIMEFRAME	\$	STAKEHOLDERS	TYPE
Governance					
1	Sustainable Procurement Study	2024	30 K		
	review internal procurement policy to align with a circular economy		5 K		A
	raise awareness of the issues within the community		15 K	Community	B
	establish guidance service and information materials for businesses and residential users		10 K	Businesses Residents	D
2	Environmental Scanning of Developments in Waste Management	2022-27			
	maintain a watching brief and regularly report to Council on the national and regional waste scene, identifying emerging issues that may impact on how CCGC operate, such as: - national programs to deal with specific waste issues (e.g. changes to tyre stewardship) - funding grants that may become available to upgrade facilities and services	Ongoing		NTG LGANT	A
3	Compliance Requirements	2022-27	5 K		
	undertake a study across all Territory related regulations, in order to identify: - how these regulations might impact Council's own waste management policies & programs - the extent of actions required for Council to be fully compliant	Ongoing	5 K	NTG	A
4	Data Collection and Review				
	conduct waste audits to determine the types and amounts of wastes disposed at both facilities	2022/2025/ 2027	15K	Businesses Residents	A
	implement a monitoring plan to gather data of waste amounts and types disposed at each facility	2023			A
	review population growth trends in the community	2022/2025			A
6	Fair Use Policy	2023		Community	A
	develop a policy for fair domestic use of the transfer station (including public information sharing)				
7	Streaming of Waste by Construction Contractors		5 K		
	establish requirements for C&D contractors to pre-arrange for waste disposal at the facilities			Contractors	A
	develop a formal 'Certificate of Social Responsibility' for companies with waste-sorting practices		5 K	Businesses	B
8	Waste Charges	2022/2023			

THEME & STRATEGIES		INDICATIVE TIMEFRAME	\$	STAKEHOLDERS	TYPE
	review the charging structure to align with air-space values, in a stepped, gradual way, over the remaining life of the existing landfill			Community Businesses Council	A
	evaluate the feasibility of charging non-residents for using the WMFs			Council Community	A
9	Future Management Options		75 K		
	undertake a feasibility study into outsourcing options for the operations of the WMFs	2022	25 K	NTG	C
	investigate and implement outsourcing of operations and machinery hire where cost effective <ul style="list-style-type: none"> - shredding - earth works - tip face management - fire management - kerbside collection - material recycle facility (MRF) services 	2022-27	40 K	LGANT Regional Councils Community Businesses Waste Industry	D
	develop partnerships with local businesses to outsource or jointly operate: <ul style="list-style-type: none"> - recycle shop - green waste processing facility 	2022-27	10 K		B

Table 7-2. Public Engagement Proposed Action Plan

	THEME & STRATEGIES	INDICATIVE TIMEFRAME	\$	STAKEHOLDERS	TYPE
Public Engagement					
10	Public Engagement				
	evaluate the most effective communication channels to transmit information to the community	2023		Community	A
	undertake public forums biannually to: - provide information to the public - receive feedback from users - explore trends in waste management and opportunities for the community	2023/2025/2027	5 K pa	Community Businesses	B
	undertake annual surveys to: - receive feedback from users - gather information about trends in waste management - assess the community's satisfaction with the waste management services provided and campaigns implemented	2023-27	5 K pa	Community Businesses	B
	support the creation of local community groups that will aim to: - educate the community regarding waste and its management - develop programs to encourage the community to reuse, recycle and reduce waste	2023-27	15 K	Community Businesses	B
11	Hazardous/Listed Wastes	2023	5 K		
	foster the removal from the community of stockpiled hazardous waste - amnesty program - liaise with NTEPA, Regional Councils, NTG regarding any hazardous or dangerous situations (e.g. illegal dumps, car bodies, refrigerators)		5 K	NTG Community Business	B

Table 7-3. Resource Recovery and Waste Reduction Proposed Action Plan

	THEME & STRATEGIES	INDICATIVE TIMEFRAME	\$	STAKEHOLDERS	TYPE
Resource Recovery and Waste Reduction Strategies					
12	Community Education Campaigns	2022-27	15K		
	engage professionals to deliver annual waste campaign for the Coomalie community		15 K	Community Consultants	C
	liaise with local institutes, such as BIITE, to develop and implement educational campaigns			Community	B
13	Tidy Town and other Programs	2022-27	5 K pa		
	arrange participation in the Tidy Towns Program		5 K pa	KAB NT	D
	liaise with community groups to explore other potential programs, such as: - KAB-NT regarding their Eco-Schools Program - DirtGirlWorld regarding their Get Grubby program			Community	B
14	Recycle Centre	2023-4	250 K		
	liaise with stakeholders with an interest to establishing and operating the recycle centre			Business	B
	explore options for setting up the project as a social venture to take pressure off financial barriers and allow for greater social capital support (i.e. supported employment)			Community	B
	establish the infrastructure required for a recycle centre - shop and staff amenities - covered and secure compound for storage and display - public access areas (goods drop-off point, customer car parking) liaise with BIITE to explore possible ways to recycle waste locally		250 K	Contractors BIITE	C B
15	Garden Mulch/Compost Facility	2023-4	30 K		
	liaise with stakeholders interested in establishing and operating a mulching facility i.e RS Gardening			Business	B
	explore options for setting up a green waste mulching facility create programs aimed to support and facilitate composting practices at home		15 K 15 K	Business Community	A D
16	E-waste drop-off point	2024			
	explore the feasibility and requirements to partner with TechCollect for their involvement in the management of e-waste				A
	partner with neighbouring councils or communities to increase feasibility liaise with other potential stakeholders for direction, support and funding			Regional councils	B B
17	Container Deposit Scheme	2024			
	explore the opportunity and requirements to have a collection depot of the Container Deposit Scheme (CDS)			Regional councils	A B

	THEME & STRATEGIES	INDICATIVE TIMEFRAME	\$	STAKEHOLDERS	TYPE
	Assess the best possible location of the collection depot			NT EPA	A
18	Tyres recycling and reuse investigate opportunities for recycling of tyres by external contractors through: <ul style="list-style-type: none"> - estimation of tyres generated annually - identification of interested businesses - liaison with other remote councils or communities 	2026		Regional councils Business	A B C D

Table 7-4. Infrastructure and Services Proposed Action Plan

	THEME & STRATEGIES	INDICATIVE TIMEFRAME	\$	STAKEHOLDERS	TYPE
Infrastructure and Services					
19	Emergency Management Requirements review arrangements for managing waste generated from natural disasters (floods, fires)	2024			A B
20	Annual Kerbside 'Large Items' Collection		50 K pa		
	explore options for setting up an annual, pre-Wet Season, large-item, kerbside collection	2023		Community Businesses	B
	contract service for community, for pre- Wet Season	2023-27	50 K pa	Waste Service Providers Waste Service Providers	C
	evaluate community participation and volumes of waste collected to possibly increase frequency of collection	2027			D
21	Address all waste types the community need to deal with	2027			
	study the types of waste needs that exist within the community			NTG	A
	explore current and future options for managing these wastes			Waste Service Providers Business	A B
22	Regional Waste Management Facility liaise with DIPL, NTG and other councils to: - foster direction, support and funding - evaluate the feasibility of transitioning Adelaide River and Batchelor's WMFs into transfer stations only support a joint study into developing a Regional Waste Management Solution: - a centralised landfill - transfer stations in all large and small settlements, appropriate to their needs - coordinated, comprehensive and ongoing public education and awareness raising - partnership arrangements with private enterprises, re: - facility management - service delivery - development of recycle markets: - Tyres - Air Conditioners - Metals - Building Timbers - Paper/Cardboard - Plastics - Glass - E-Waste - Oil	2022-27		NTG LGANT Regional Councils Community Businesses Waste Service Providers	B A B

Table 7-5. Protection of Environment and Amenity Proposed Action Plan

	THEME & STRATEGIES	INDICATIVE TIMEFRAME	\$	STAKEHOLDERS	TYPE
23	Operational Requirements	2024			
	review and update the operations plan of Adelaide River's waste management facility. The plan should include at least the following areas: <ul style="list-style-type: none"> - waste generation (estimates and types) - waste collection and disposal procedures - management, staff and users (rates, roles and responsibilities) - facilities management (operation hours, cell construction and landfilling of waste, bins, signage, litter management, pest and weed control, fire management, leachate and water management) - training, communication and awareness (staff training plan, communication plan, educational programs) - environmental risk assessment - emergency response plan (incident reporting, incident investigation, inspection report) - monitoring (monitoring procedures, routine inspections, data reporting) - life span assessment based on collected data - closure plan - rehabilitation plan 				A D
	develop Batchelor's waste management facility operations plan, covering the areas previously described review and update of operational plans annually				
24	Waste burning	2023	5 K		
	Liaise with community groups, NTG and NT Police, Fire & Emergency Services to develop information campaigns about risks associated to burning waste		5 K	NTG NTFRS	B D
25	Circular Economy Study	2027+	25 K		
	undertake a study into the implications of a circular economy on the CCGC community		25 K		A

8 NEXT STEPS

The WMS developed for CCGC provides a set of strategies and high-level budgets to be implemented within the community. The following table outlines a series of next steps for CCGC to consider when determining how to proceed with actioning the strategies. Furthermore, in order to identify whether the strategies presented in this WMS are effective for CCGC, an annual review should take place each year to assess this.

Table 8-1. Next steps for CCGC to action strategies

Item	Approach
1	CCGC to endorse WMS
2	CCGC to engage or employ staff member to lead actioning of WMS
3	WAC and CCGC to determine priorities strategies to action across the next 12 months, whilst also developing a Gantt chart as to the staging of other strategies to be implemented over the next 5 years.
4	WAC members to be assigned to different strategies and development an implementation plan i.e., precuring quotes from contractors, finalising budgets, developing scope of works packed for each project
5	Throughout the year, data is to be collected about success of implementing projects, so the implementation can be monitored and then updated if necessary

9 REFERENCES

- Ashford, L (2014) *Transfer Station Operation Management Strategy – Discussion Paper*. [online]. Available at: https://irp.cdn-website.com/df9c3053/files/uploaded/Discussion_Paper_Transfer_Station_Operations.pdf [Accessed 3 May 2022]
- Bureau of Meteorology (2022) *Climate Data Online*. [online] Available at: http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_stn_num=014272 [Accessed 3 May 2022]
- Coomalie Community Government Council (2021) *Annual Shire Plan 2021/2022*. [online] Available at: https://irp.cdn-website.com/df9c3053/files/uploaded/Annual_Shire_Plan_2021-22_FINAL.pdf [Accessed 10 May 2022]
- Department of Land, Planning and the Environment (DLPE) (2000). *Coomalie Planning Concepts and Land Use Objectives*. [online]. Available at: https://ntepa.nt.gov.au/_data/assets/pdf_file/0003/286554/partbperguidelinesbrownstsf.pdf [Accessed 18 May 2022]
- Department of Environment, Parks and Water Security (DEPW) (2022). *Know your bore*. [online]. Available at: https://nrmaps.nt.gov.au/knowyourbore_desktop.html [Accessed 18 May 2022]
- Local Government Association of the Northern Territory (LGANT) (2009) *Waste Management Guidelines for Small Communities in the Northern Territory, Working Towards Best Practice*. [online]. Available at: https://ntepa.nt.gov.au/_data/assets/pdf_file/0007/284686/waste_management_small_communities.pdf [Accessed 3 May 2022]
- Northern Territory of Australia (2016) *Waste Management and Pollution Control Act 1998*.
- Northern Territory Environmental Protection Authority (NT EPA) (2015) *Waste Management Strategy for the Northern Territory 2015-2022*. [online]. Available at: https://ntepa.nt.gov.au/_data/assets/pdf_file/0008/284948/ntepa_waste_strategy_2015_2022.pdf [Accessed 11 May 2022]
- Northern Territory Government (NTG) (2020a) *Amangal Indigenous Village – Town Camp*. [online]. Available at: <https://bushtel.nt.gov.au/profile/427> [Accessed 18 May 2022]
- Northern Territory Government (NTG) (2020b) *Northern Territory Climate Change Response: Towards 2050*. [online]. Available at: https://depws.nt.gov.au/_data/assets/pdf_file/0005/904775/northern-territory-climate-change-response-towards-2050.pdf [Accessed 18 May 2022]
- Australian Bureau of Statistics (ABS) (2016) *Census Data* [online]. Available at: <https://www.abs.gov.au/census/find-census-data/search-by-area> [Accessed 3 May 2022]
- Poortinga, J. (2019) *Adelaide River Landfill Operations Plan* [unpublished]
- Verman, M (2001) *Groundwater Resources of the Berry Springs – Noonamah area*. [online]. Available at: https://denr.nt.gov.au/_data/assets/pdf_file/0005/254696/WRD94030.pdf [Accessed 18 May 2022]
- Verman, M (2002) *Hydrogeological Map of Darwin – Explanatory Notes 1:25 000 Scale Map*. [online]. Available at: <https://frackinginquiry.nt.gov.au/submission-library?a=433205> [Accessed 18 May 2022]
- World Bank (2018) *What a Waste 2.0: A global Snapshot of Solid Waste Management to 2050 – Trends in Solid Waste Management*. [online]. Available at: https://datatopics.worldbank.org/what-a-waste/trends_in_solid_waste_management.html [Accessed 18 May 2022]

APPENDIX A COMMUNITY CONSULTATION REPORT



Coomalie Waste Management Strategy Community Consultation Report

Prepared by True North Strategic Communication
April 2022

Version No.	Issue Date	Prepared by:	Approved by:	Approval Date
V1		True North Strategic Communication		
V2				
V3				

Recipients are responsible for eliminating all superseded documents in their possession

Consultation statement

True North Strategic Communication is guided by the principles of good community engagement, based on people’s level of interest and concern as outlined by the International Association for Public Participation (IAP2).

Our role is to provide stakeholders and the general public with objective information, so they can provide informed feedback on consultation projects. We give people the opportunity to provide input that is balanced and reflective of the range of community views to independently provide the best possible guidance to decision makers.

Our practice reflects professional standards and ethical standards for human research including anonymity, confidentiality, record storage and keeping people informed.



Table of Contents

Executive summary	1
Engagement	1
Goal.....	1
Objectives	1
Tools and tactics	1
Feedback.....	2
Recommendations	2
Background	4
Methodology	5
Goal	5
Objectives	5
Engagement Level	5
Consultation approach	5
Tools and tactics	6
Stakeholders	8
Feedback	10
One-on-one meetings	10
Public display stands	14
Feedback stands	15
Phone and email submissions	16
Written submissions	16
Online survey	16
Commercial business survey	16
Residential survey	21
Recommendations	29

Executive summary

Coomalie Community Government Council (CCGC) engaged EcOz Environmental Consultants (EcOz) to develop a new Waste Management Strategy to guide the management of waste in Coomalie for the next 5-10 years.

Similar to other rural and remote towns in the Northern Territory, Coomalie has limited waste management services. CCGC currently provides kerb side pick-up of general waste to residents and businesses in the townships and Lake Bennett, and has two waste facilities in Adelaide River and Batchelor.

With the shift to conservation and recovery in the Northern Territory, Council recognised a need to consult the community and gather feedback to guide the future of waste management in Coomalie.

True North Strategic Communication (True North) was engaged to consult with the community and stakeholders to gather feedback and understand the values of Coomalie residents around waste disposal and resource recovery programs. The consultation ran over a four-week period between 7 March 2022 and 1 April 2022 with all feedback provided to Council to help inform the Waste Management Strategy.

Engagement

Goal

The goal of this consultation was to inform and consult with Coomalie stakeholders and the community to understand the attitudes, values and appetite for change towards improving waste management in Coomalie.

Objectives

The objectives of this consultation were to:

- build awareness about the Coomalie Waste Management Strategy
- gather baseline data to understand the community's satisfaction with waste disposal in Coomalie
- educate the community about the levels and types of waste generated in Coomalie and the costs of collecting and disposing of it
- inform the community about current and future infrastructure needs and the costs and timeframes involved in developing them
- understand the appetite for more community education and awareness about waste and the way it is managed in Coomalie
- test ideas on how to better manage waste and increase recycling and resource recovery
- gather local insights and new ideas on how to better manage waste in the future.

Tools and tactics

The consultation was open for four weeks between 7 March 2022 and 1 April 2022. The tools and tactics used during the consultation are outlined below.

One-on-one stakeholder meetings were held with key stakeholders to gain an in-depth understanding of their values, attitudes and ideas for the Coomalie Waste Management Strategy.

Information displays were held to proactively engage with the community at a time convenient to them, so they have an opportunity to provide feedback and ideas about waste management. Community members were able to complete the survey, ask the project team questions and provide qualitative feedback through one-on-one discussions.

Feedback stands were set up at the waste stations in Coomalie and used to survey residents as they entered and used the facilities. Facility users were asked to provide feedback on the current facilities through one-on-one discussions with the project team.

A **factsheet** was developed to provide the community with 'need to know' information about the consultation process.

Surveys were created in both an online and hard copy form to record the community's feedback, thoughts and ideas about current and future waste management systems in Coomalie.

Feedback

Overall, feedback was received from 176 sources via the various engagement platforms available.

The key themes raised during consultation were:



Recommendations

As a result of the community's feedback, the following recommendations are provided for the Council and Waste Advisory Committee to consider when designing the Coomalie Waste Management Strategy:

- larger collection containers for recyclable rubbish at both waste management facilities
- more recycling options at both facilities, particularly for recycling cardboard, metal, wood, furniture, tyres and electrical items
- educational signage at the waste facilities explaining the types of waste that can be recycled and how to recycle correctly
- educational programs and/or initiatives to better educate the community on why they need to recycle, how they can recycle and how to use the waste facilities
 - Council could consider partnering with schools or other educational institutions to help progress this initiative
- establish incentives to inspire the community to recycle, such as the cash for cans scheme in Darwin
- flexible opening hours and options for long-term commercial users of waste facilities
 - as this may not be an option for Council due to resource limitations, it is recommended that Council create clear and transparent communication materials so the community understands why the facility had to limit its hours
 - Council could work with businesses to navigate the issues businesses are facing

- creating a central storage location for white goods and other licensed waste and hiring a local contractor to take the waste to a licensed facility
- developing community education materials with positive waste stories including the amounts being recycled and what that means for Coomalie, so the community are included in the waste management journey and to generate more positive attitudes towards recycling and waste management in Coomalie
- organise an annual Council rubbish collection
- review the safety procedures at both facilities, particularly the Batchelor facility, as a number of cars have been damaged using the facility.

Background

Coomalie Community Government Council (CCGC) has engaged EcOz Environmental Consultants (EcOz) to develop a new Waste Management Strategy.

Coomalie Council covers an area of land covering Manton Dam recreation area, Adelaide River township, Lake Bennett residential estate, the Batchelor township and surrounding rural areas. Around 1391 people live in the Coomalie Shire.

The history of waste management in Coomalie is similar to that of many other rural and remote towns in the Northern Territory. Coomalie provides kerb side pick-up of general and commercial waste to residents and businesses in the townships and Lake Bennett, and has two waste facilities at Adelaide River and Batchelor.

Coomalie Council provides essential waste management services to the local community and faces challenges with the move towards sustainable waste management, including:

- lack of knowledge in the community around sustainable waste management, both what is currently being done and what can be improved
- an ageing and conservative population who may not be as receptive to new waste management proposals
- physical isolation from reuse and recycle facilities and markets
- incorrect or destructive dumping of waste on the side of roads or at waste facilities
- clean-up activities associated with natural disasters
- future waste management security.

Coomalie currently diverts limited quantities of its recyclable waste. The new Waste Management Strategy will look at bringing Coomalie closer to a proactive reduce, reuse and recycling regime similar to those found in other regional towns.

The shift to conservation and recovery is occurring at a slower rate in the Northern Territory than in other states, mainly due to the lack of infrastructure support to set up a circular economy and financial incentives to reduce waste disposal to landfill. Council engaged Coomalie stakeholders and the community to gather feedback to guide collection and disposal methods over the next five years.

To support these efforts, Council formed a Waste Advisory Committee with Council members and community volunteers who will work with Council to develop and implement the new Waste Management Strategy.

True North Strategic Communication (True North) was engaged to consult with the community and stakeholders to gather feedback and understand the values of Coomalie residents around waste disposal and resource recovery programs. The consultation ran over a four-week period between 7 March 2022 and 1 April 2022 with all feedback provided to Council to help inform the Waste Management Strategy.

Methodology

Goal

The **goal** of this consultation was to inform and consult with Coomalie stakeholders and the community to understand the attitudes, values and appetite for change towards improving waste management in Coomalie.

Objectives

The objectives of this consultation were to:

- build awareness about the Coomalie Waste Management Strategy
- gather baseline data to understand the community's satisfaction with waste disposal in Coomalie
- educate the community about the levels and types of waste generated in Coomalie and the costs of collecting and disposing of it
- inform the community about current and future infrastructure needs and the costs and timeframes involved in developing them
- understand the appetite for more community education and awareness about waste and the way it is managed in Coomalie
- test ideas on how to better manage waste and increase recycling and resource recovery
- gather local insights and new ideas on how to better manage waste in the future.

Engagement Level

The consultation was conducted at the engagement level of **consult** according to the International Association for Public Participation (IAP2).

LEVEL OF ENGAGEMENT	PROMISE TO THE PUBLIC
<i>Inform</i>	<i>We will keep you informed</i>
<i>Consult</i>	<i>We will listen to your concerns, keep you informed, and provide feedback on how stakeholder's input influenced the decision</i>
<i>Involve</i>	<i>We will work with you to ensure your concerns are reflected in the alternatives developed, and provide feedback on how the public's input influenced the decision</i>
Collaborate	We will look to you for advice, ideas and solutions and incorporate those into the decisions as much as possible
Empower	We will implement what you decide

©International Association of Public Participation www.iap2.org

Consultation approach

This consultation ran for a period of four weeks from 7 March to 1 April 2022. Over the four-week period the community were provided a range of options to provide feedback through phone, email, online surveys and in-person meetings.

A total of four stakeholder meetings were held with five key stakeholders for the project. Two public information display stands and two feedback stands enabled community members to ask questions about the project and provide their feedback directly to consultants.

Tools and tactics

The following tools and tactics were used during consultation to engage with the community and stakeholders.

Communication materials

- fact sheet
- web copy
- topic guide
- online survey for residents/ratepayers
- online survey for commercial users

Communication activities

- post box drop
- one-on-one meetings
- information display stands
- feedback stands
- email
- phone

Online surveys

Two online surveys were developed and distributed both digitally and in hard copy. The surveys targeted residents/ratepayers and commercial businesses in Coomalie. The survey included general questions about both waste facilities and more targeted questions on waste management and recycling in Coomalie.

Hardcopy surveys were available at key locations across Coomalie including the general stores, pubs and post office and were available at the information and feedback stands. The online version was shared across Coomalie Community Government Council's website and social media platforms and links to the surveys were listed on the factsheet.

Post box drop

Due to the remote location of many of the residents and ratepayers in Coomalie, a formal letterbox drop was not possible. The factsheet and an A5 pamphlet developed by the Council were placed into the available post boxes at the local post office. The factsheet and hard copy versions of the surveys were also made available in key locations across Coomalie.

One-on-one meetings

One-on-one meetings were offered to five key stakeholders that were selected by the Coomalie Council and approved by the Coomalie Waste Advisory Committee. A total of four meetings were conducted over the consultation period with the following stakeholders:

- Batchelor Institute of Indigenous Tertiary Education
- Department of Environment, Parks and Water Security/NT Environment Protection Authority
- Department of Infrastructure, Planning and Logistics
- RS Gardens

The NT Environment Protection Authority (NT EPA) elected for the Department of Environment, Parks and Water Security represent them in their meeting, however the NT EPA has reached out to organise another meeting with the Coomalie Council to further discuss the project outside of the consultation.

Information display stands

Two information display stands were held for two hours each at key locations in both Adelaide River and Batchelor. These stands allowed for the community to access more information about the project and the consultation, speak directly to a consultant, ask questions and provide their feedback. These stands were held at the following locations and times:

Glen Huitson Park, Adelaide River

Monday 21 March 2022

9:30am – 11:30am

Batchelor General Store

Friday 25 March 2022

9:00am – 11:00am

Two consultants and a representative from the Coomalie Community Government Council were present at both display stands.

Feedback stands

Two feedback stands were set up for two hours at both waste management facilities: Adelaide River Waste Management Facility and Batchelor Waste Management Facility. These stands enabled consultants to engage with people using the facility and engaging in waste management in Coomalie. Consultants spoke with a range of community members and received their feedback about how they felt waste was managed in Coomalie and any improvements they would like at the facilities. These stands were held at the following locations and times:

Adelaide River Waste Station

Saturday 19 March 2022

9:00am – 11:00am

Batchelor Waste Station

Friday 25 March 2022

12:00pm – 2:00pm

At least one consultant and one representative from CCGC were available to speak to at both feedback stands.

Centralised phone and email

True North was the central point of contact for the project via a contact phone and email address. During consultation one phone call and 7 emails were received with questions, meeting details and written submissions. Although these numbers are low, it is understood that Coomalie is not a community heavily reliant on digital communication and many community members provide feedback via written submission or in person.

Stakeholders

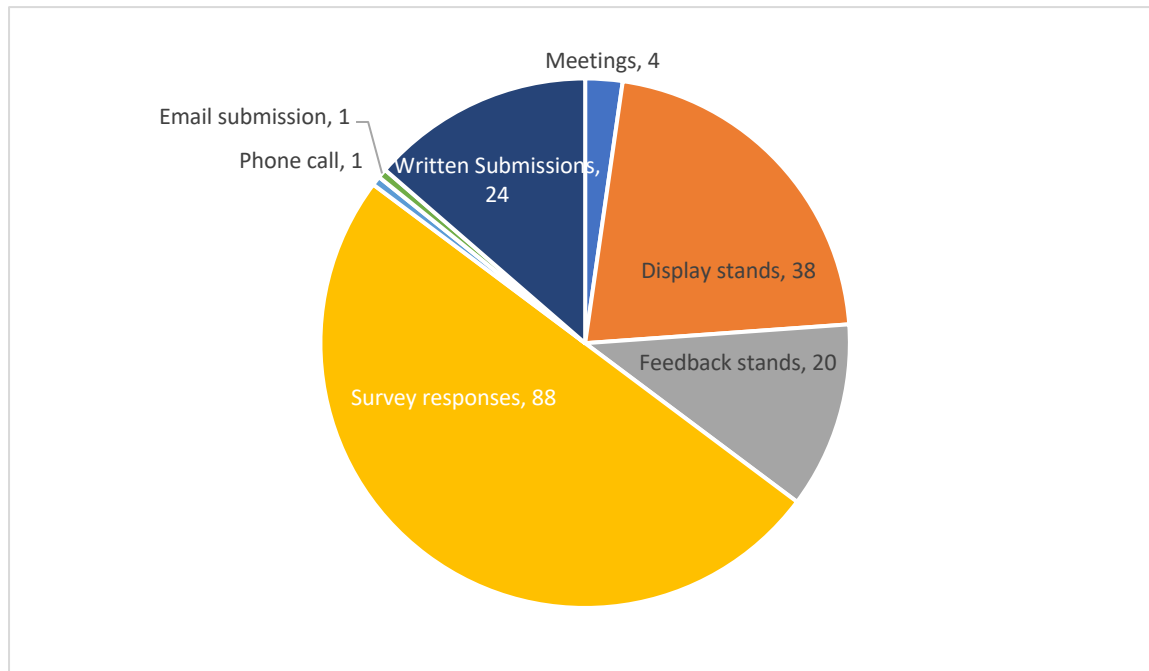
The key stakeholders engaged for this project were local Coomalie businesses and government representatives. The following table outlines each of the stakeholder groups and the method of communication and engagement. This included phone calls, emails and face-to-face meetings.

Stakeholder	Emailed fact sheet	Phone call	Meeting
Northern Territory and Federal Government			
Coomalie Community Government Council	✓		
Dept Infrastructure, Planning and Logistics	✓	✓	✓
Director, Sport Asset Management Sport, Recreation and Strategic Infrastructure	✓		
Dept of Environment, Parks and Water Security	✓	✓	✓
Dept Industry Tourism and Trade	✓		
Dept Chief Minister and Cabinet (Local Government Division)	✓		
Minister for Environment	✓		
Police, Fire and Emergency Services	✓		
Waste and Environment Stakeholders			
Conservation Volunteers Australia	✓		
Environment Centre NT	✓		
Keep Australia Beautiful	✓		
NT Environment Protection Authority	✓	✓	✓
VTG Waste	✓		
Waste Free NT	✓		
Waste Recycling Industry Association Northern Territory	✓		
Waste and Environment Stakeholders			
Adelaide River Clinic	✓		
Adelaide River School	✓		
Adelaide River Show Society	✓		
Akron Group	✓		
Amangal Community	✓		
Batchelor Area School	✓		
Banyan Tree Resort	✓		
XO Aviation	✓		
Batchelor FERG (Neil Macdonald)	✓		
Batchelor Health Clinic	✓		
Batchelor Holiday Park	✓		

Stakeholder	Emailed fact sheet	Phone call	Meeting
Batchelor Institute of Indigenous Tertiary Education	✓	✓	✓
Batchelor Museum	✓		
Batchelor Outdoor Education Centre	✓		
Batchelor Solar Farms (BSR)	✓		
Butterfly Farm	✓		
St Francis Anglican Church	✓		
Coomalie Air	✓		
De Lago Resort	✓		
Eva Valley Meats	✓		
Fawcett Cattle Company	✓		
IronBark Corporation	✓		
Lake Bennett Body Corporate	✓		
Litchfield Regional Tourism Inc	✓		
Litchfield Tourist Park	✓		
NT Adventure Park	✓		
Ostojic Group	✓		
Pandanus Holiday Park	✓		
RS Gardening	✓	✓	✓
Rum Jungle Bungalows	✓		
Rum Jungle Meats	✓		
Yilli Rreung Aboriginal Housing Corporation	✓		
Zebra Rock and Accommodation	✓		

Feedback

Feedback was provided through one-on-one meetings, public display stands, feedback stands, phone and email submissions and survey responses.



One-on-one meetings

During consultation, four one-on-one meetings took place to discuss feedback and recommendations for the Coomalie Council in developing their Waste Management Strategy. A summary of the feedback gathered during meetings is outlined in the table below.

Batchelor Institute of Indigenous Tertiary Education

The key feedback from the Batchelor Institute of Indigenous Tertiary Education (BIITE) is:

- BIITE is eager to work collaboratively with the Coomalie Council to make their community more sustainable.
- BIITE has an appetite for change in waste management and recycling and will be forming a committee to work towards a goal of zero waste.
- BIITE focus is on making recycling accessible.
- BIITE believes there needs to be solutions that involve employing community members.

A summary of the feedback from BITTE is outlined below.

Theme	Comments
Current facilities	<ul style="list-style-type: none"> • Concern over amount of waste that ends up in landfill, particularly in Adelaide River where staff have noted glass recyclables in general waste. • BIITE is interested in what happens to the waste once they have separated the recycling, and do not want to waste efforts as all waste is going to landfill.

Attitudes	<ul style="list-style-type: none"> • BIITE's focus is on making recycling easier to accomplish and more accessible. • There is appetite amongst the workers and students on campus for more sustainable options, but these options are not yet available. • BIITE is not afraid to explore other avenues aside from recycling when working towards a sustainable future. • BIITE believes that any option explored by the Council should encourage employing locals in the community. These options include: <ul style="list-style-type: none"> ○ A tip shop ○ A person hired to take listed goods to Darwin to be disposed of correctly.
Collaboration	<ul style="list-style-type: none"> • BIITE is keen to work with the CCGC to work towards a sustainable future. • BIITE is willing to listen to objectives from the Council's Waste Management • BIITE would like to work with the CCGC on installing more bins for recycling and potentially for food waste/composting, as it is currently hard to recycle on the Batchelor campus.
Internal changes	<ul style="list-style-type: none"> • The BIITE Council and Executive Team have met and discussed how their campus can begin changing towards a goal of zero waste and will set up a committee to work towards this goal.

Department of Environment, Parks and Water Security/ NT EPA

The key feedback from the Department of Environment, Parks and Water Security (DEPaWS) is summarised below:

- The department's comments reflected a future approach to waste management across the Northern Territory that align with future changes to regulation over the next 5-10 years.
- Department representatives were positive about increased recycling efforts and moving away from the use of landfills.
- DEPaWS suggested that Coomalie's Waste Management Strategy be developed to position themselves for the future.
- DEPaWS reflected that moving to a different model of waste management would be costly, but there would be a greater long term financial and economic cost if nothing is done.

Quotes

- *Get on the front foot, start the process now, plan for the here and now and plan for the next 5 years*

A summary of the feedback from DEPaWS is outlined below.

Theme	Comments
-------	----------

Strategic advice	<ul style="list-style-type: none"> • The NT EPA is in discussions with DIPL about developing a regional waste management facility to service the Northern Territory. • There will be changes to waste management regulations and guidelines over the next 5-10 years so Coomalie should position themselves to meet these changes. • Although changing models of waste management can be costly, it is more costly to do nothing and let the situation deteriorate. • Consider a waste management strategy that collaborates with other small councils - increase affordability and available infrastructure.
------------------	---

Department of Infrastructure, Planning and Logistics

The key feedback from the Department of Infrastructure, Planning and Logistics (DIPL) is:

- DIPL is focused on developing a regional waste management facility for the Northern Territory and is positive about Coomalie's role in this.
- DIPL believes that Coomalie could benefit economically as part of a regional waste management facility by developing a circular economy.
- DIPL believes a transfer station model of waste management will help Coomalie best transition to meet future waste regulations and models.
- DIPL is positive about Coomalie moving away from a landfill waste management model and increasing their reduce, reuse, recycle activities.

Quotes

- *Waste is changing to an industrial state. How that will happen is still in the future. There is lot of moving parts and we can't bed much down.*
- *It's not an overnight process, but it's important for Coomalie to consider their scale, their resident and what would be the best plan to transition over.*

A summary of the feedback from DIPL is outlined below.

Theme	Comments
Strategic advice	<ul style="list-style-type: none"> • Landfills have an end of life and many are coming to an end in the Northern Territory, so it's a good time for Coomalie to develop a strategy to manage waste to meet future models and regulations for waste management. • The NT EPA is looking at the number of facilities in the NT to decrease and the efficiency of the facilities to increase. • Coomalie should focus on developing their waste management facilities as transfer stations to prepare for future change.
Considerations	<ul style="list-style-type: none"> • A regional waste management facility would see a single site developed as the major drop off point for waste in the NT which is fed by smaller transfer sites. • A regional waste management facility would first be developed as an emergency waste facility to support the Territory during natural disasters, before being developed further. • Coomalie works as a location for a regional waste management facility because of its location to other small council sites and proximity to major roads and rail lines.
Recommendations	<ul style="list-style-type: none"> • Industries develop by implementing a circular economy - tyres can be turned into a crumbed rubber industry, food and green waste can become a compost or feed industry.

RS Gardening

The key feedback from RS Gardening is:

- New opening hours for the waste facilities has impacted RS Gardening's business, resulting in double handling of waste, increased costs and cross contamination of weeds.
- RS Gardening advised they are happy to work with Council on local contract work and would ensure the job is done correctly.
- A central location to store white goods for a regular disposal trip to Darwin will benefit the community and decrease dumping in the bush.
- Non-residents should be made to pay to use the waste facilities, similar to other waste facilities.

A summary of the feedback from RS Gardening is outlined below.

Theme	Comments
Issues	<ul style="list-style-type: none">• Limited opening hours are significantly impacting their business including double handling of work, reduced profit margins and loss of business.• The disposal of tyres and whitegoods is a big issue for both residents and businesses because it cannot be done in Coomalie.
Feedback	<ul style="list-style-type: none">• The fences around the Waste Management Facilities were a good idea.• The dump site is dangerous due to incorrect backfilling.• People are dumping waste illegally around Coomalie because they cannot access the waste management facility conveniently or the waste facilities will not take the type of waste they need to dump.• The future growth of Coomalie should be considered so that waste management facilities cater for population growth.• Council should work more with locals who care about the community rather than outside contractors who don't care about getting the job done correctly.• RS Gardening is happy to work with and contract to Council to support the new Waste Management Strategy.
Recommendations	<ul style="list-style-type: none">• Commercial dump users should have key access to the waste management facilities.• Include a collection point for whitegoods and tyres at the waste management facilities.• Allow people to take whitegoods and tyres to the dump where Council can collect them and send them to Darwin.• Green waste can be added to soil and sold - this is something RS Gardening already does and would be happy to work with Council to develop.• A once a year kerbside collection of rubbish that is difficult to dispose would help residents remove things like whitegoods, tyres, machinery and building waste.• Non-residents should be charged to dump at the waste management facilities.• A recycling pick up would be a great addition to the current kerbside offering.

Public display stands

Two public display stands were held in key locations in Coomalie: Glen Hewitson Park (opposite the General Store) and Batchelor General Store. A total of 38 people attended across the two sessions to provide feedback on current waste management and suggestions for future waste management. The public displays were held with two consultants from True North and a representative from the Coomalie Council.

Feedback received was focused across the following themes:

Opening times

The opening times of both waste facilities was a common issue with all those visiting the display stands. When asked when they would prefer the facilities to be open, the community provided a wide range of responses, however opening hours outside business hours – before or after the workday – was popular.

Local business representatives who visited the displays suggested different allowances for businesses, such as a key for the facility as they cannot always fit the waste station hours around their clients' needs.

Recycling

Most people at the displays were positive about recycling and the importance of recycling. Many said they recycled from home. Of those who said they don't recycle from home, most said they would in the future if the facilities were better and they had more incentive to do so.

People at the display stands raised the following issues about the recycling facilities:

- the size of the bins, with community members asking for bigger bins with a wider diversity of items able to be recycled on site
- concern about what happens to the recycling once it's been separated onsite, with some community members commenting that the bins are emptied into landfill
- education of what can be recycled and general attitudes of the wider community towards recycling.

Some stakeholders were particularly passionate about recycling and believe there is monetary value in doing it better in Coomalie. Some options for this included turning old tyres into crumbed rubber, old plastic into building supplies, cans and bottles for cash schemes and scavenging rights for those in the community interested in that method.

Tip shop

A tip shop received mixed reviews from the community. Some supported the idea, but many were indifferent. Community members did like the idea of having a place to store old items that could be recycled, but were not enthusiastic about paying for the reserved waste.

Licensed and other waste

Community members repeatedly raised the limitations on the type of waste allowed to be dumped in both facilities. White goods and electrical waste were mentioned several times, with many people storing their white goods at home or combining their waste with a friend's to get it shipped to a licenced facility. Many community members wanted a central location to store their white goods, paint cans, oil and electrical waste, and for Council to organise a contractor to take it to Darwin.

People were concerned that the lack of a facility to dispose of this waste resulted in the waste being dumped in the bush.

Council hard rubbish pick-up

A regular Council pick up, similar to what occurs in Darwin for cyclone clean-up, was mentioned a couple of times by those who visited the display stands.

Quotes

- *It's a throw away world and we can't landfill everything.*
- *I would use a tip shop if it was available, but I'm not sure if other people would. It would be good for a facility like that to be located in Batchelor.*
- *You want to set it up good. In a little place like this if it gets a bad wrap it won't get used.*
- *We're attacking it (recycling) from the wrong end. If we got things that were easier to recycle, more accessible, we might do it.*
- *If rubbish is managed incorrectly people will do the wrong thing to avoid being involved in council process and that's where people start dumping illegally.*
- *I think it's important that we are doing more to recycle to protect our environment for future generations. I won't have to deal with everything that comes from the way we manage waste now, but our kids will.*
- *If there is no space to dump, people, they'll do it illegally.*
- *Why do we pay so much for what we are getting?*

Feedback stands

Two feedback stands were held on location at the Adelaide River and Batchelor Waste Facilities. A total of 20 people attended across these two sessions to provide feedback directly about the waste facilities and recommendations for changes. The feedback stands were held with at least two consultants from True North and one representative from the Coomalie Council.

Feedback received was focused around the following themes:

The facility

Many visitors to the facility were satisfied with the current set up, however a few raised some issues. Road quality and safety was a concern for the Batchelor site, with some users saying cars had been damaged (flat tyres) when disposing of their green waste in the designated area. Weed management was an issue raised for both sites, as was shade when using the facility.

Those who did have an issue with both sites raised issues with access and management from the gate guard who they felt could be doing more in the sites.

Opening hours

The opening hours of both sites were raised as an issue. Users of the Adelaide River site felt stronger about these issues than those at Batchelor. The main concerns were access for people around their work, and access for those living in rural areas who have to make a trip into town especially to use the dump.

Recycling

Attitudes towards recycling were mixed, but overall positive. Questions were raised over how the products separated were recycled, with concerns that the rubbish is dumped in landfill anyway. The size of the bins at the facilities were raised as an issue as well as the diversity of the recycling, with users wanting space to recycle paper, cardboard, medical waste, steel, wood, and more. Cash for cans was also raised as a service users would like to see implemented.

Licensed and other waste

Licensed waste like white goods was another prolific issue for users of the waste facilities. Similar to the information displays, facility users recommended a shared space for white goods to be stored and then shipped to Darwin or Katherine.

Quotes

- *You get fuel and a carton – makes it worth the trip* (in reference to driving to Darwin)
- *I know it costs money but it's for the environment.*
- *I hate having to go into Darwin, but sometimes driving all that way is a more convenient option than trying to work your schedule to visit the dump here.*

Phone and email submissions

One phone submission from a resident in Adelaide River was received during the consultation period. The main issues raised focused on recycling, in particular the diversity of recycling available at the facilities. As an avid recycler, this person would like a wider range of recycling bins available for different waste. Other comments were that they have to store white goods until they could get to Darwin to dispose of them correctly.

One email submission was also received over the course of the consultation. This community member asked for leniency for volunteer organisations such as “The Community Shed” who do not charge patrons and will need to dump their waste after projects. This user also noted that the scrap metal skip was full when she and her partner tried to dump their metal, and when they went out the back of the Batchelor facility to dump this waste in the secondary location, they got two flat tyres.

Written submissions

A total of 24 written submissions were received via letters and posters. The posters focused primarily on stopping dumping and littering, with some messaging focusing on recycling. The written submissions focused on the facility's opening hours. The letters also raised issues about illegal dumping and its ties to the dump opening hours. Some letters also mentioned that recycling is a good option and the cost of facility maintenance in rates.

Online survey

Commercial business survey

Summary

There were 9 responses to the commercial business survey, from businesses in retail, construction, tourism, hospitality and agriculture. The use of percentages in reporting for the commercial business survey may be misleading due to the low number of responses, therefore actual response numbers are used here.

The commercial respondents use a range of waste disposal facilities and generate a variety of different types of waste. Businesses have different preferences for when they like to access the facilities, however Mondays and Fridays were the most popular, and either the afternoon or the morning were the main preferences.

All of the businesses said it was important to recycle waste and said they try to reduce, reuse and recycle waste. When asked why they don't recycle, 5 businesses said it was because of a lack of recycling facilities.

There was high awareness among respondents about the ability to separate waste at the recycling stations and most said they would be willing to separate their waste and recyclables in the future.

Satisfaction with Council’s current waste services and waste management facilities is low, with more dissatisfied than satisfied. Respondents provided a range of reasons for their responses, including the need for an option for disposing of furniture, white goods and similar, a lack of controls at the landfill, the need for extended opening hours, and the perceptions that recycling is not recycled.

Some respondents provided suggestions to encourage recycling, including recycling bins in the main street for commercial use, mulching and composting, a range of recycling options, addressing illegal dumping and providing confidence that recycling and waste is being managed properly.

Respondents

More than half (5) of the respondents have operated their business in Coomalie for more than 10 years. Four of the 9 businesses operate in Adelaide River, two in Eva Valley, one in Batchelor, one in Finnis Valley and one said they operate in various locations.

Waste disposal facilities used

Businesses were asked which waste disposal facilities their business uses. Commercial respondents report using a range of facilities, except for the recycling service. Numbers total more than 9 as some provided multiple responses.

Waste disposal facilities used	Responses
Batchelor Waste Management Facility	4
Commercial bin service	3
Adelaide River Waste Management Facility	3
Kerbside bin service	1
Recycling Service	0

Type of rubbish

Commercial respondents were asked what type of rubbish they normally dispose of, with a range of responses:

- All respondents reported disposing of general waste
- Four said they dispose of white goods
- Construction/renovation materials, garden waste, e-waste, furniture/mattresses all had two responses
- Single responses were
 - cardboard, paper
 - batteries, asbestos and waste oil that don’t go to the dumps
 - food
 - steel.

Services used in the last 12 months

Businesses were asked which services they had used in the last 12 months. Numbers total more than 9 as respondents were able to provide multiple responses:

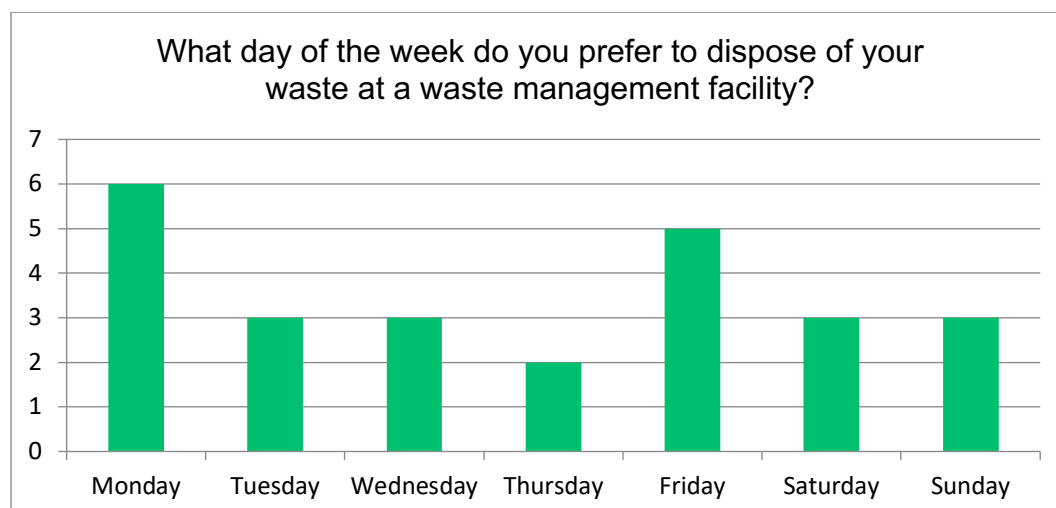
Services	Responses
Batchelor Waste Management Facility	6
Adelaide River Waste Management Facility	4
Adelaide River Recycling Service	2
Batchelor Recycling Service	2

How often waste management facilities are used

Most businesses (5) reported using waste management facilities weekly. The other businesses reported using the facilities fortnightly (1), monthly (1), every few months (1), and one said twice weekly.

Preferred days to use the waste management facilities

Numbers for this question total more than 9 as respondents were able to provide multiple responses. Although Mondays were preferred by most businesses (6) for disposing waste at a waste management facility, followed by Friday (5), businesses have a range of preferences across the week, outlined in the graph below:



Preferred times to use the waste management facilities

Most commercial respondents (6) prefer to dispose of the waste at the waste management facilities in the afternoon, while 5 prefer the morning. Three said they prefer midday and one prefers the evening. Numbers for this question total more than 9 as respondents were able to provide multiple responses.

Importance of recycling waste

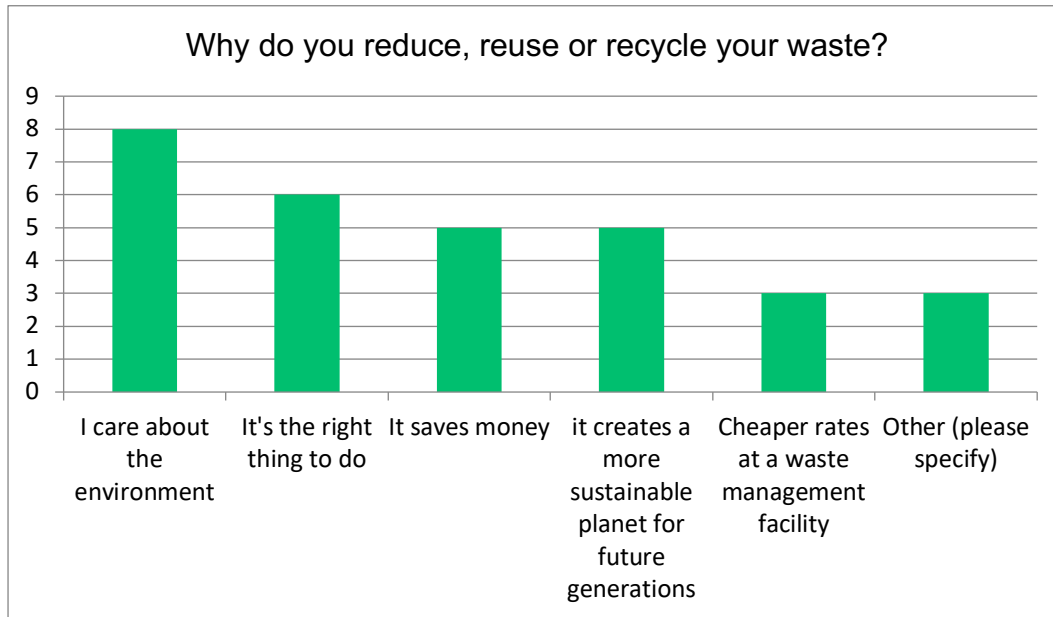
All commercial respondents said recycling is either very important (7) or somewhat important (2) to them.

Reduce, reuse, recycle

All commercial respondents said they try to reduce, reuse or recycle at their business.

When asked why they reduce, reuse or recycle their waste, businesses selected a range of responses provided, represented in the graph below. Those who selected 'other' said:

- so the dump would last longer
- it's normal behaviour where they are from
- we only get one planet.



When asked why they don't reuse, reduce or recycle their waste, most said it was due to a lack of recycling facilities (5), 2 said it is because they heard some items don't get recycled and one person said that not all their waste can be recycled.

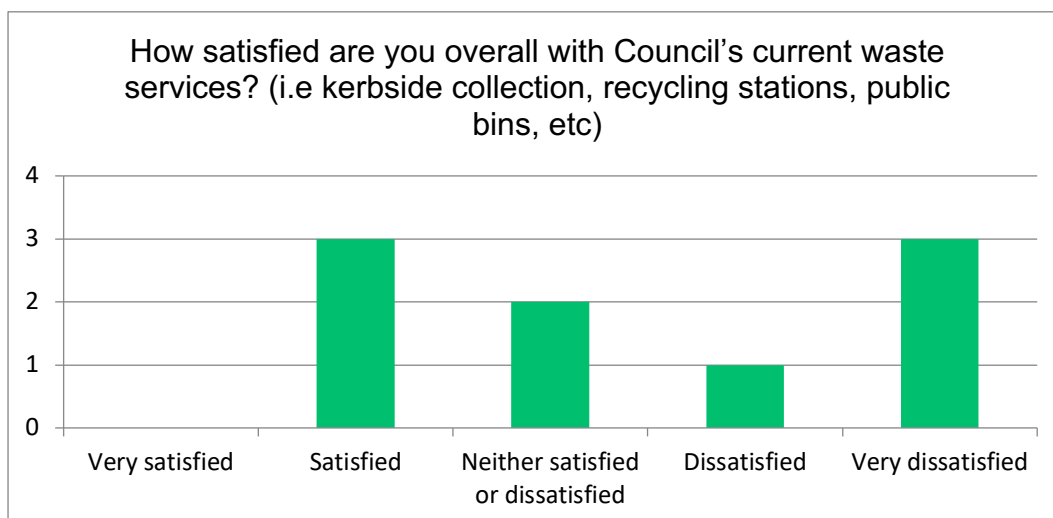
Awareness of recycling stations enabling separation of waste

Only one commercial respondent was not aware of the recycling stations at Adelaide River and Batchelor Waste Management Facilities that allow you to separate waste.

Six respondents said they would be willing to sort all waste and recycle materials now they know about the facilities to separate waste, while 2 businesses said they would sort some waste but too many options would make it difficult.

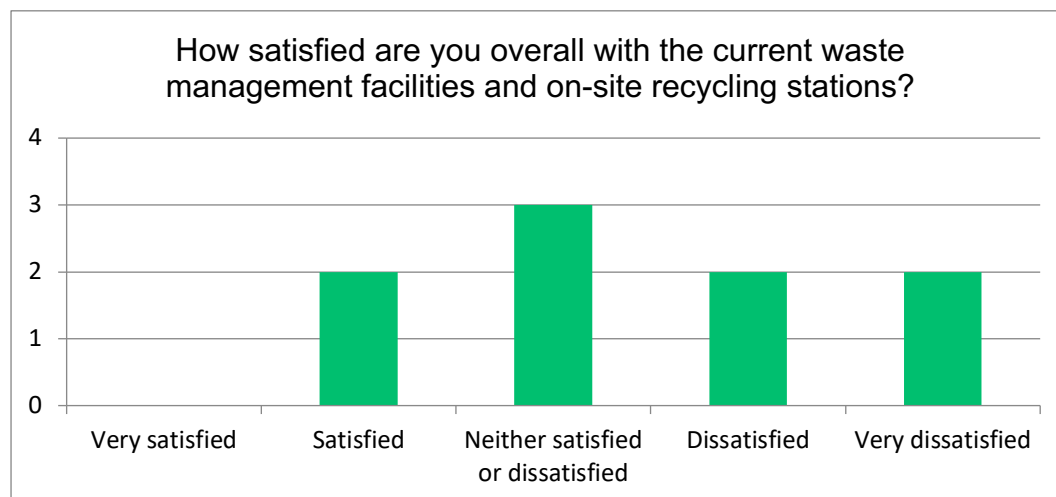
Satisfaction with Council's current waste services

Satisfaction with Council's current waste services was not high amongst the commercial respondents, with only 3 reporting being satisfied, one dissatisfied, 3 very dissatisfied and 2 were neither satisfied or dissatisfied.



Satisfaction with Council's current waste management facilities and onsite recycling stations

There are low levels of satisfaction with Council’s current waste management facilities and onsite recycling stations amongst the commercial respondents. Only 2 respondents said they were satisfied, while 2 were dissatisfied and 2 were very dissatisfied. Three were neither satisfied nor dissatisfied.



When asked to explain the reason for their answer, people provided the following responses:

- We need recycling, nicer staff, reuse items collection or tip shop.
- We would like an option to dispose of furniture, white goods, electrical, steel at least once per month, or every quarter and a verge pick up for town or it will end up in the bush.
- The landfill appears old and with no real controls and that worries me. I'm aware of various horror stories of what's gone into the landfill in its time, none of which may be true, but it's supposed to be limited in what can go into it and I'm not convinced that actually happens all the time. I and others should be sending our other wastes to Darwin or have them collected, that costs a lot and I know few people who actually do it.
- Need to be open more often and additional hours.
- Insufficient recycling of many items.
- Need a white goods area in Adelaide River.
- We have found easy to schedule and utilise.
- Poor opening times, recycling isn't recycled, dump shop closed.

Suggestions for other initiatives

Respondents were asked if they had suggestions for other initiatives that might be helpful to increase recycling, recovery and reducing waste to landfill. Commercial respondents provided the following suggestions:

Quotes

- *Recycle bins in Main Street for commercial use. The waste facilities need a shelter to stand under while you sort your waste.*
- *Mulch and compost green water and paper and cardboard waste.*
- *Sort out the illegal tippers and dumpers, they don't pay, they don't care and they undercut me and others trying to do things properly. Design and build proper modern waste facilities in locations that both support our business needs now but also allow for future business growth, give confidence that our waste is managed properly and being recycled/reused and that we have the capacity to manage wastes into the future. What we have now compared to what I've seen in regional Vic or even FNQld is pretty basic. It shows no thought, no real*

interest in the environment or growth (out of site is out of mind) and we need to plan and actually implement those plans for the future.

- *Can recycling; white good recycling; tip shop; glass recycling*
- *White goods area in Adelaide River*
- *Composting, dump shop open*

Residential survey

*percentages are rounded to the nearest whole percentage, therefore some may total more than 100%.

Overview

Residents who completed the survey are dissatisfied with the Council's current waste services and waste management facilities. People are mostly dissatisfied due to a lack of recycling facilities, limited opening hours, restrictions on items that can be disposed of and a lack of kerbside collection.

Most respondents believe recycling is important and many indicated that there needs to be facilities or services for recycling items such as whitegoods, batteries, oil, cardboard, paint, tyres, and e-waste. Some suggested that better information and transparency around recycling in Coomalie is needed. People outlined a variety of other initiatives including allowing people to scavenge for free to use items that others have disposed of, more sorting bins and shelters for the sorting areas, and occasional collection service for items that can't be disposed of at the facilities, to reduce dumping of items in the bush.

Summary

Most of the 79 residents who completed the online residential survey were ratepayers (91%), and most have lived in Coomalie for more than 10 years (65%). Respondents were from many areas around Coomalie, but the most represented areas were Adelaide River and Batchelor.

Two-thirds of survey respondents have used the Batchelor Waste Management Facility in the last 12 months and one third has used the Adelaide River Waste Management Facility.

Waste management facilities are used frequently in Coomalie, with 44% of respondents visiting a waste management facility weekly and 21% visiting fortnightly.

There is a high level of dissatisfaction with Council's current waste services, with 60% either very dissatisfied or dissatisfied. There is a very high level of dissatisfaction with Council's current waste management facilities and onsite recycling stations, with 68% either very dissatisfied or dissatisfied.

The main reasons people reported being dissatisfied were:

- a lack of recycling facilities
- limited opening hours
- restrictions on what can be disposed of
- lack of kerbside collection.

Most of the survey respondents consider recycling to be important and almost all said they try to reduce, reuse or recycle at home. The main reason people gave for not recycling is because they have heard that some items don't get recycled or due to the lack of recycling facilities.

More than two-thirds of respondents said better recycling facilities would help them to reduce, reuse or recycle (72%) and more than one-third said improved kerbside collection such as additional bins would help (35%).

The survey listed five services and asked people to rank them in order of priority. The aggregated results show that respondents consider all five services to be of a similar priority, however the order of priority, from highest to lowest was:

- recycling and food waste bin options for kerbside pick-up residents
- tip shop
- annual pre-wet season kerbside pickup of goods
- garden/green waste recycling bin
- mulch and compost shop.

People provided suggestions on how to increase recycling, recovery and reducing waste, with the following initiatives most frequently mentioned:

- providing facilities or services for disposal or recycling of white goods, televisions, tyres, oil, paints, batteries, glass, cardboard and e-waste
- better information for the community about recycling
- ability for people to use items that others have disposed of, at no cost.

People outlined their concerns about waste management in Coomalie, with the following issues most frequently raised:

- limited opening hours
- restrictions on what can be disposed of
- better information and transparency about recycling.

Respondents

Most of the 79 residents who completed the online residential survey were ratepayers (91%), 8% were non-rate paying residents and 6% were businesses. Most of the respondents (65%) have lived in Coomalie for more than 10 years, while 18% have lived in the area for 6-9 years 5% for 3-5 years and 13% have lived in Coomalie for two years or less.

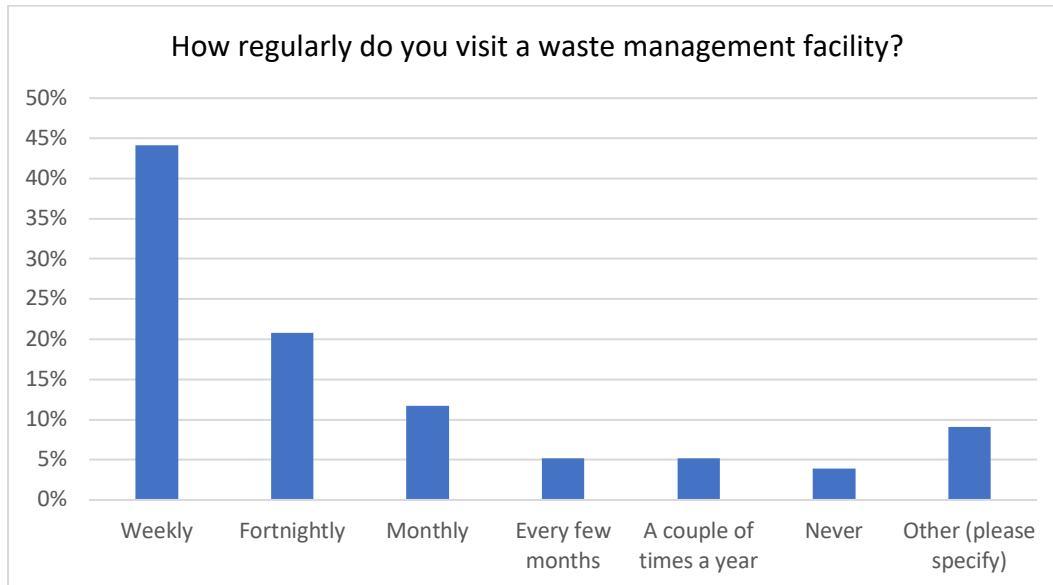
The respondents are from many different areas around Coomalie, however Adelaide River and Batchelor were the most represented regions (22% each), followed by Eva Valley (15%).

Services used in the last 12 months

Respondents were asked to indicate which of the stated services they had used in the last 12 months. Two-thirds of respondents had used the Batchelor Waste Management Facility in the last 12 months (67%) and one third have used the Adelaide River Waste Management Facility (33%). Just over a quarter of respondents (27%) said they have used a recycling station at Adelaide River or Batchelor Waste Management Facilities.

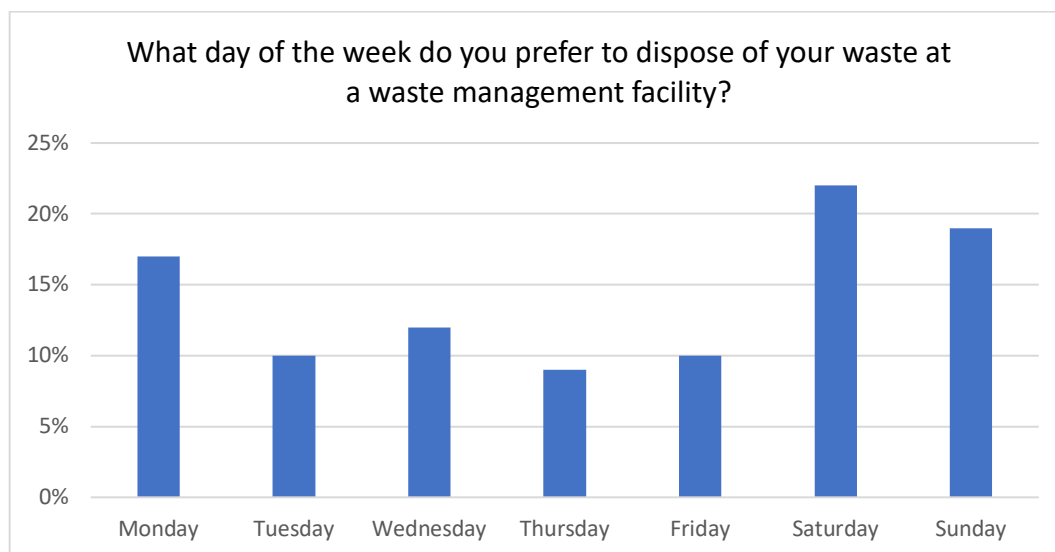
How often waste management facilities are used

Waste management facilities are used frequently in Coomalie, with 44% of respondents visiting a waste management facility weekly and 21% visiting fortnightly.



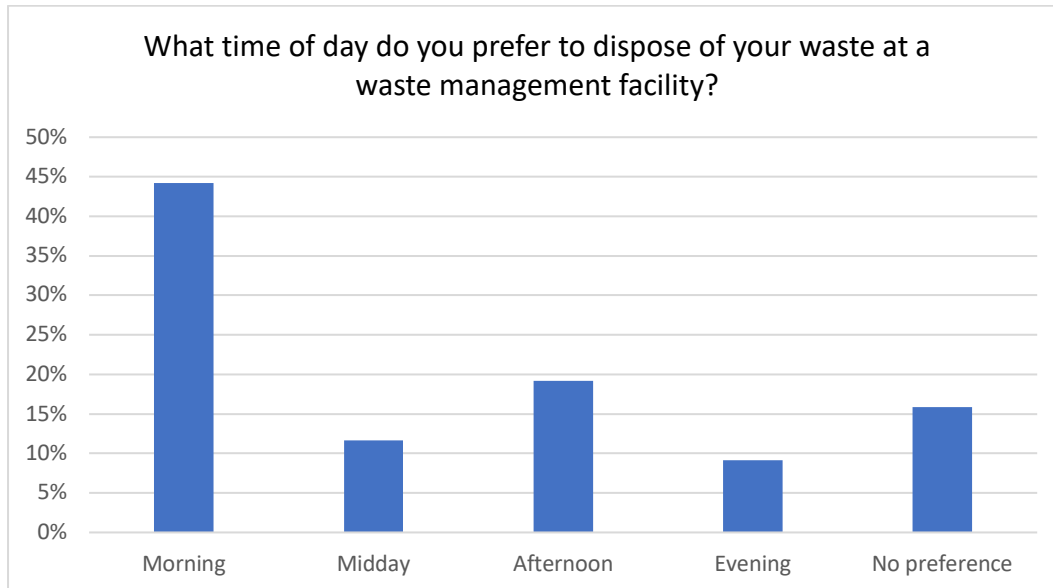
Preferred days to use the waste management facilities

Saturdays (22%) and Sundays (19%) are the most preferred days to visit a waste management facility, followed by Mondays (17%). Tuesday (10%), Wednesday (12%), Thursday (9%) and Friday (10%) were not as popular.



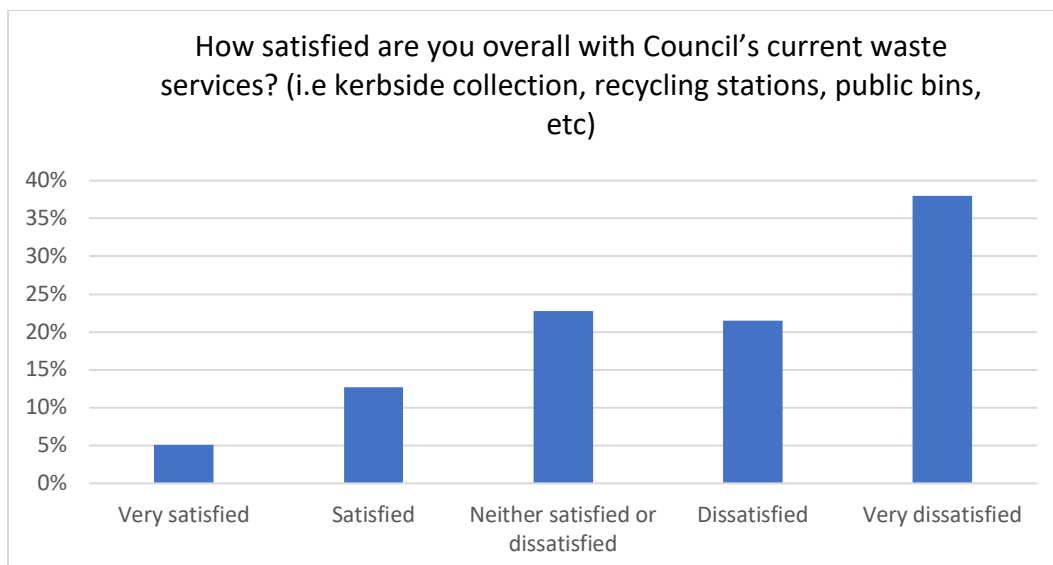
Preferred times to use the waste management facilities

People had a range of responses when asked when they prefer to dispose of their waste at a waste management facility, however most people prefer the morning (44%), while 19% prefer the afternoon and 16% had no preference.



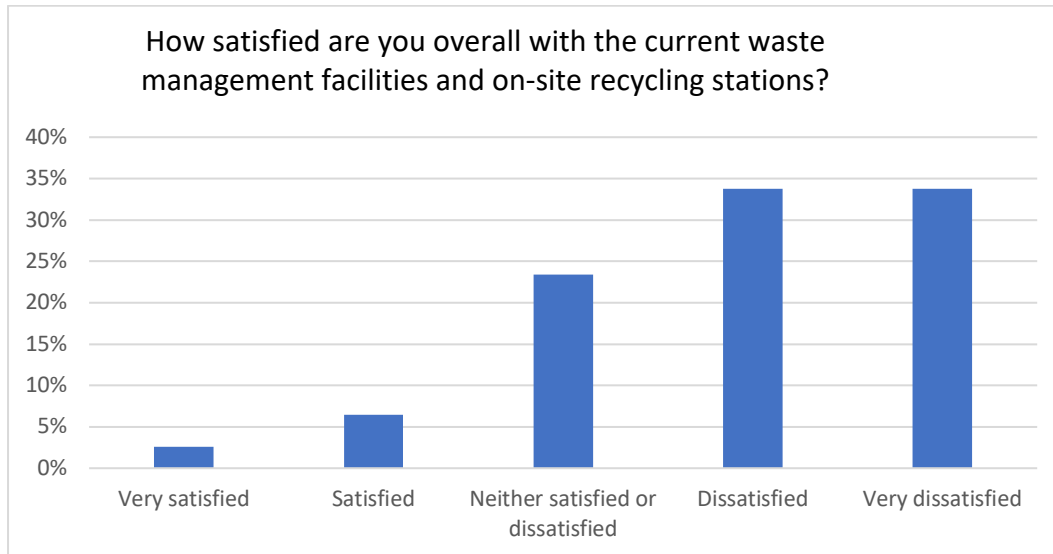
Satisfaction with Council’s current waste services

There is a high level of dissatisfaction with Council’s current waste services, with 60% either very dissatisfied or dissatisfied. Only 18% report being either very satisfied or satisfied with the services.



Satisfaction with Council’s current waste management facilities and onsite recycling stations

There is a very high level of dissatisfaction with Council’s current waste management facilities and onsite recycling stations, with 68% either very dissatisfied or dissatisfied. Only 9% were satisfied or very satisfied.



Reason for dissatisfaction with current waste management facilities and onsite recycling stations

Sixty people provided a response to this question, with the following key issues raised:

- **lack of recycling facilities**, or perception that waste is not actually recycled (approximately one-third of responses highlighted this issue)
- **limited opening hours** – many people commented that the opening hours are too limited and make it difficult to access (about one-quarter of respondents highlighted this as an issue)
- **restrictions on what can be disposed of** and the inability to dispose of white goods, batteries, oil and electrical items – a number of people highlighted this issue, and commented that this leads to people dumping their waste illegally
- **lack of kerbside rubbish collection** – some respondents were dissatisfied that they pay rates but are not provided with kerbside rubbish collection services.

Quotes

- *Council is not recycling, but is making out like they are.*
- *What recycling station? Council is not recycling the recycling bins get thrown in landfill this is a scam and disgusting.*
- *If the facility had a place to recycle I would like to use the facility. I would like to be able to recycle cardboard.*
- *The operating hours are ridiculous, just open the dump and leave the gate open. People don't have time to be checking all the time what days and hours a rubbish bin is open. If you must shut the dump then have a skip bin outside for people who don't work for the council and have constant access to the inconsistent hours.*
- *Too much restriction on what can be dumped. Instead of kerbside collections why not have designated areas at the tip for different types of waste.*
- *The opening hours are very restricted and common waste items cannot be disposed of e.g. white goods.*
- *Only able to basically dump household as in kitchen rubbish.*

Awareness of recycling stations at Adelaide River and Batchelor Waste Management Facilities

Most respondents know that there are recycling stations at the waste management facilities (71%), however more than a quarter were not aware of the recycling stations.

Reducing, reusing and recycling waste

Recycling is important to the majority of survey respondents, with most stating that they consider recycling to be very important (71%) or somewhat important (14%).

Almost all respondents said they try to reduce, reuse or recycle at home (94%), with people selecting the following main reasons for this:

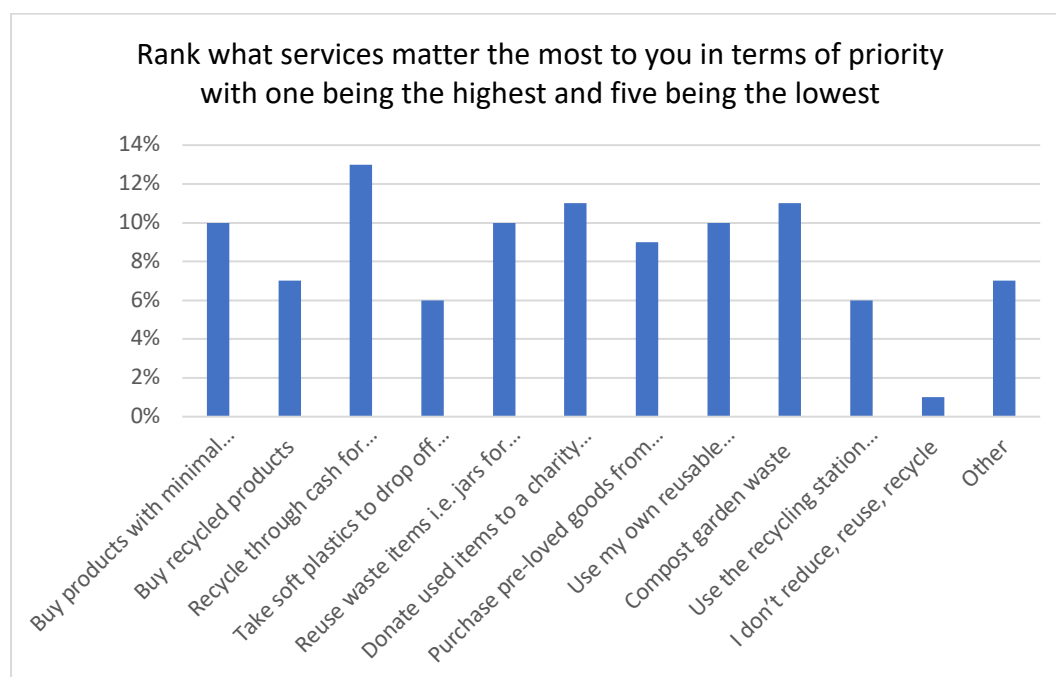
- I care about the environment (69%).
- It creates a more sustainable planet for future generations (64%).
- It's the right thing to do (64%).
- It saves money (35%).

The main reason people said they don't reduce, reuse or recycle is because they have heard that some items don't get recycled (44%), and almost a third (32%) said it was due to the lack of recycling facilities.

Respondents use a range of methods to reduce, reuse or recycle, with the following most frequent responses:

- Recycle through cash for containers (13%).
- Compost Garden waste (13%).
- Donate used items (11%).

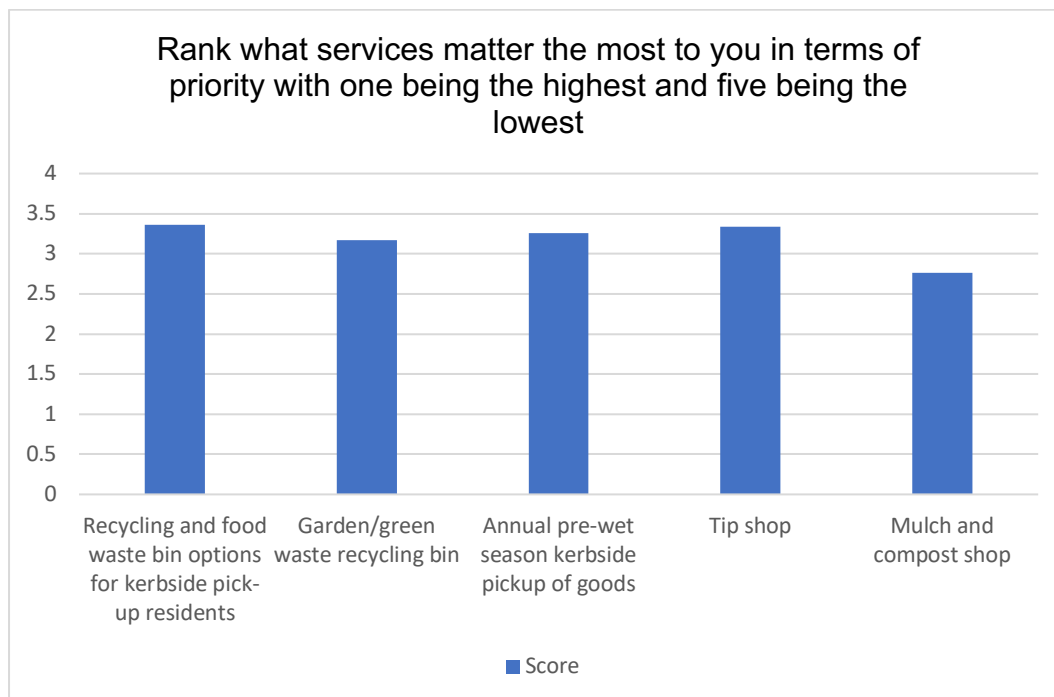
Others commented that they use all of the methods provided in the survey.



More than two-thirds of respondents said better recycling facilities would help them to reduce, reuse or recycle (72%) and more than one-third said improved kerbside collection such as additional bins would help (35%).

Priority of services

Respondents were asked to rank a range of services in terms of priority, with 1 being the highest and 5 being the lowest priority. The aggregated results indicate that respondents consider the five services to be a similar priority however the highest priority for respondents is recycling and food waste bin options for kerbside pickup, followed very closely by a tip shop.



Tip shop facility

Respondents indicated that they would use a tip shop facility, either donating goods (85%), or purchasing used or repurposed goods (79%).

Suggestions for other initiatives

Some of the most frequently mentioned initiatives to increase recycling, recovery and reducing waste were:

- providing facilities or services for disposal or recycling of white goods, televisions, tyres, oil, paints, batteries, glass, cardboard and e-waste
- better information for the community about recycling
- ability for people to use items that others have disposed of, at no cost.

Quotes

- *Maybe every 6 months or 12 months a pickup of white goods, batteries and tyres (items that are not allowed to be dumped at facility) can be arranged. People are dumping this out in the bush.*
- *Please enlarge the recycled waste containers at Adelaide River. At present one plastic domestic wheely bin has to serve the entire community!*
- *Open up the landfill so people can make use of what is there instead of buying new all the roofing tin etc.*
- *Have the tip open so that people can dispose of their rubbish. Educate them about recycling - at the moment you are just alienating the public.*
- *Clear information on what can be recycled at our waste stations AND info on what to do (where to take for recycling) with other items such as batteries/white-goods/tyres.*

Other concerns about waste management

A total of 53 people outlined their concerns about waste management, with the following issues most frequently raised:

- **Limited opening hours** – many people commented that the opening hours are too limited and make it difficult to access. Some said that this leads to people dumping their waste in the bush or outside the dump.

- **Restrictions on what can be disposed of** – quite a few people commented that they could only dispose of household waste and had nowhere to dispose of other items such as whitegoods, electronics, batteries and tyres. Some said that this leads to people dumping their items in the bush.
- **Better information and transparency about recycling** – some people suggested that there needs to be more transparency and information about what can be recycled, what is actually recycled and how it is processed, and how people should use the facilities.

Quotes

- *The inconsistent opening hours. People lead busy lives and dont have time to worry about what days the dump is open. There is no alternative to provide a solution to people who dont work for the council and only have time to drop trash at the tip and find it inexplicably shut. There needs to be at least a skip bin outside the gate. Otherwise people will be dumping crap in the scrub and we dont need that polluting our area.*
- *I could not dump a used air conditioner or whitegoods. I'm not sure where I can take such items to dispose of. Also, is there a facility to dispose of waste engine oil?*
- *Absolutely. People are going to start dumping large items in the bush, or on council property. Driving >100km is not an option for most people.*
- *Start from a position of honesty with rate payers. Stop this delaying tactic of trying to appear to be doing something by having surveys. You already know what you should be doing. When you do actually start recycling, have clear signage explaining how to use the recycling bins correctly. Have signs with photos showing examples of what plastic items can be recycled. Have a separate spot for people to put 10c cans and bottles. Some people don't want to take them all the way to town, but would be happy for someone else to take them.*

Recommendations

The following recommendations are provided based on the feedback received during the consultation:

- larger collection containers for recyclable rubbish at both waste management facilities
- more recycling options at both facilities, particularly for recycling cardboard, metal, wood, furniture, tyres and electrical items
- educational signage at the waste facilities explaining the types of waste that can be recycled and how to recycle correctly
- educational programs and/or initiatives to better educate the community on why they need to recycle, how they can recycle and how to use the waste facilities
 - Council could consider partnering with schools or other educational institutions to help progress this initiative
- establish incentives to inspire the community to recycle, such as the cash for cans scheme in Darwin
- flexible opening hours and options for long-term commercial users of waste facilities
 - as this may not be an option for Council due to resource limitations, it is recommended that Council create clear and transparent communication materials so the community understands why the facility had to limit its hours
 - Council could work with businesses to navigate the issues businesses are facing
- creating a central storage location for white goods and other licensed waste and hiring a local contractor to take the waste to a licensed facility
- developing community education materials with positive waste stories including the amounts being recycled and what that means for Coomalie, so the community are included in the waste management journey and to generate more positive attitudes towards recycling and waste management in Coomalie
- organise an annual Council rubbish collection
- review the safety procedures at both facilities, particularly the Batchelor facility, as a number of cars have been damaged using the facility.



COOMALIE
COMMUNITY
GOVERNMENT COUNCIL